Occasional Paper - 23

# Institutional Credit to Indian Agriculture:
## Defaults and Policy Options

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National Bank for Agriculture and Rural Development
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# PREFACE AND ACKNOWLEDGEMENTS

The rural financial institutions, with the sole aim of eliminating informal finance through moneylenders, have always been providing agricultural credit at subsidized interest rates with negligible collateral and other liberalized provisions. The net result is that while informal finance continues to hold a prominent place in rural finance, the RFIs are heading towards a state of financial unsustainability. Consequent upon this, RBI and NABARD have initiated several institutional and policy measures to revamp credit institutions for speedy mobilization and effective delivery of credit to the masses in a more efficient way. Steps have also been taken to give an indirect admission to informal finance through bank-self-help-groups linkage programme. The programme, which forms part of micro finance, has revived research interest in the subject of sustainable rural credit. The revival has also been triggered by the growing importance of devising ways to enhance financial services to the rural poor in several countries.

Are the existing policy changes effective enough to reduce the incidence of defaults in Indian rural credit and bring back the financial health of banking institutions? Is micro finance programme through formation of SHGs a viable solution? Can micro finance be extended to agricultural activities for overall rejuvenation of rural financial institutions? Can international experiences on micro finance throw any light on this issue? In what way can credit be injected into the system so that a higher rate of growth of agricultural economy is achieved without jeopardizing financial health of the rural financial institutions? These are some of the issues that the present study addresses.

The study was made possible by the generous support of NABARD. We are grateful to Mr Y.C.Nanda, Chairman, NABARD, for discussing some of the ideas contained in this study, and encouraging us by giving literature on the subject and also promising to experiment some of these in extending the reach of rural credit through NABARD. We also had an opportunity to discuss in detail the new approaches that can be taken in rural credit with the Minister of State for Finance, Shri Balasaheb Vikhe Patil, who is keen to change the scene of rural credit in India. We are thankful to him for sharing with us his ideas and also respond to those being proposed by us. Our thanks also go to Dr. V. Puhazhendhi for providing us relevant literature and data on the subject.

Mr. P. Bakshi in NABARD's office was kind enough to spare his time to discuss the quirks of SHGs in the initial stages of the project. We are thankful to Mr. Vivek Sinha, NABARD for extending help in collection of relevant data. We would also like to place on record our appreciation for Mr. Alok Kumar, Director, Ministry of Finance and his staff for giving us valuable time and information on commercial banks that cater to agriculture. We also cherish the assistance received from Mr. Kanti Kumar Saraf, Reserve Bank of India. Discussions with Dr. Jacob Yaron of the World Bank, Mr Ravi Kumar and Mr Rudra of the ICICI Banking Corporation, were illuminating in providing insights into various aspects of micro finance being practiced in different south-east Asian countries and how it can be modified in India. In the initial stages of this study, Dr R N Agarwal of IEG also worked on this topic, and contributed to discussions and review of literature on the subject. We are highly appreciative of that. Needless to say that the opinions reflected in this study are of the authors, and they alone remain responsible for any shortcomings that may still be there in the study.

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The usual disclaimer about the responsibility of the National Bank as to the facts cited and views expressed in the paper is implied.

# EXECUTIVE SUMMARY

## I The Issues:

The rural credit market appears to be confronted with a paradox. The informal sources of finance, be they local money lenders, landlords, traders, etc. charge more than 20% rate of interest, often keep land as collateral against loan, and still have a very high recovery rate. On the other hand, rural financial institutions (RFIs) charge almost half of this interest rate, do not take land as collateral for most of the crop loans, and still face high defaults. Therefore, it is queer to find out what stands in the way of fast mobilization of formal credit in the rural areas. Several Committees and Task Forces have identified major inhibiting factors to be increasing incidence of overdues or non-performing assets (NPAs) in the rural credit system, high transaction costs, regulated interest rates, inability of the financial institutions to cater to the changing demands of the agricultural sector, inherent limitations of the RFIs in inequitable distribution of loans and limited reach. The net outcome is that while informal finance still holds a prominent place in rural finance, the RFIs, especially, cooperatives are heading towards a state of financial unsustainability. It is, thus, recommended that the RFIs should be strengthened so as to accelerate the flow of credit to meet the credit demands of the agricultural sector and enhance overall development of the rural economy.

In this context, several research questions can be raised. First, what are the loan recovery rates of RFIs and the resultant NPAs or overdues over a period of time? Second, since not all overdues are bad debts, what is the magnitude of bad debts or defaults in Indian agriculture that is likely to be written off? Third, what policy and institutional measures have been taken to reduce the incidence of bad debts in RFIs, particularly after the financial reforms in 1991 were set in? Finally, how and in what ways RFIs can be revitalized?

The present study intends to explore these issues by first analyzing the temporal behaviour of deposits, loan outstandings and overdues in each of the RFIs viz. cooperatives (both short term and long term), commercial banks and regional rural banks from 1980 onwards. Thereafter, it estimates the extent of bad debts or defaults in each of the RFIs at all India level and across seventeen major states from 1980 to 1997. The factors behind mounting defaults in Indian agriculture are also reviewed. The study, then, highlights the policy and institutional measures that have been suggested and implemented by several Committees and Task Forces to minimize defaults and revamp RFIs. It also evaluates Bank-SHGs linkage programme of

NABARD by juxtaposing successful international experiments on micro finance. The study, finally, proposes two models of agricultural finance that can be instituted by NABARD and adopted by the RFIs.

## II. An overview of defaults in Rural Credit:

The analysis reveals that although deposits and loans outstanding of RFIs have increased manifold in the rural areas, overdues have also gone up significantly. From 1980 to 1998, the recovery of loans in cooperatives, regional rural banks and commercial banks has varied between 39-66%. A higher level of recovery is observed only after 1995. Of the total amount that is due at different time periods, some of it is recoverable and some is irrecoverable and the latter often results into bad debts or defaults. We have estimated the amount of defaults in Indian agriculture that are likely to be written off on the basis of age distribution of overdues in each RFIs from 1980 to 1997. The results show that during 1980, the share of bad debts in total loan outstanding was estimated to be 3.58%. It reached its lowest level in 1989 at 2.72% and then started moving upwards till it attained its highest level (4.25%) in 1992. Thereafter, it showed a declining trend and arrived at almost its bottommost (2.91%) by 1997. Though defaults in Indian agriculture have risen over time, there exist tremendous fluctuations in their behaviour across all the RFIs. It is observed that while commercial banks had a maximum share of defaults (46.25%) in 1997, LDBs had minimum at 8.06%. The share of RRBs and PACS in total defaults stood at 25.09% and 20.6% in that year.

A higher incidence of overdues and the resultant bad debts are associated with a large number of factors, both internal and external to the system. The major factors are natural calamities, inadequate income generation, high transaction costs, inappropriate financial policies, poor working of the RFIs, follow up of prudential norms and provisioning of non-performing assets. Needless to say that defaults in the RFIs adversely affect recycling of credit, squeeze up their resources and are closely linked with the banks heading towards a state of financial unsustainability.

## III. Pushing Policy Reforms-Challenges Ahead:

In order to combat the problem of defaults as well as to ensure financial viability of the rural banking system, RBI and NABARD have brought in several policy and institutional measures. The major changes introduced, particularly after the financial reforms in 1991 set in, relate to re-capitalization of regional rural banks, liberalization in the interest rates, increase in

commercial freedom of the RFIs and credit flows to the rural areas, development of Local Area Banks. Introduction of 'Kisan Credit Cards' is also considered as an effective step towards speedy loan delivery and avoidance of defaults. To some extent, these measures have enabled commercial banks and regional rural banks to rejuvenate their position. Now efforts are on to energize cooperatives by following a 'member driven approach', providing greater autonomy, re-structuring them at the village level and giving incentives to bank staff and the borrowers for speedy recovery of loans and their timely repayment.

Along with these measures, NABARD has also come up with micro finance (MF) programme through formation of Self-Help Groups (SHGs) with the help of village level non-governmental organizations (NGOs). The main objective of the programme is to improve living standards of the poor rural households through expansion of non-farm activities. In-house evaluation of the programme reveals a notable progress in terms of SHGs formed by the RFIs, loans extended, reduction in the transaction costs, nearly 100 percent loan recovery and improvement in the socio-economic status of the members. A few states have already instituted legislative measures for incorporation of MF within the main lending business of RFIs.

But how fast the programme can be replicated within and across the states to non-farm activities as well as farm activities and whether the programme will be financially sustainable in the long run is still a question mark. The study finds that Indian SHGs programme is still in its experimental phase and is not empirically researched upon in its entirety. Therefore, nothing conclusive can be said about the relative success of the RFIs in the long run. We have deliberated upon a few aspects of the programme by juxtaposing experiences of successful international experiments on micro finance. Four prominent success stories in three Asian developing countries viz. the Bank for Agriculture and Agricultural Credits (BAAC) in Thailand, the Badan Kredit Kacamatan (BKK) and the Bank Rakayat Indonesia Unit Desa (BRI-UD) in Indonesia, and Grameen Bank (GB) in Bangladesh are reviewed in details. A collation of experience of these select RFIs along with the Bank-SHGs programme affirms that micro finance through group lending has great potential in the Indian context. But the RFIs have to go a long way in dealing with diverse issues and streamlining the programme within their normal lending business. Its fast replication within and across the states also appears to be a challenging task. Much depends on the collective actions of the government, banks and NGOs involved, socio-economic environment in a particular region, ability of the RFIs and NGOs in forming homogeneous groups and disbursing credit and overcoming constraints. Provision of mobile banking services, incentives to bank staff and borrowers, third party incentives, sanctions for poor recovery

performance, effective supervision by the bank staff and extension of marketing and other services would also determine success of the programme.

As far as extension of SHGs to farm (agricultural) activities is concerned, it is observed that the programme as such is not targeted towards agricultural finance. But this issue assumes importance in the wider context of maximum credit demand generated from agricultural sector, similar principles of group lending being followed under SHGs and cooperatives, comparatively lower defaults under SHGs, commercialization of agricultural activities and inability of the RFIs to cater to farmers' demand. The study finds that the MF, if extended to agricultural finance, would necessitate internalization of the SHGs model within the PACS. And, revitalization of PACS on similar lines with micro finance institutions can be a strenuous task. At the outset, it would entail alterations in the existing structure and working strategy with minimum bureaucratization, grouping of members (farmers), imparting them training on new working strategy, tying up their savings with lending and deregulating interest rates. Initial pumping of resources by state/government to RFIs, motivation of staff to have banking culture, timely supervision and collection of loans would also be added factors. Needless to say that the design, application of group lending and performance of the RFIs will differ as per the social and political context of programme and flexibility given to RFIs in making desired modifications. Before delving into this, several of these issues along with size of group formation, response of the existing members, cost of group lending, seasonal loan delivery mechanisms etc. deserve to be empirically researched upon and experimented. Information of the four Asian MF cases can provide directions in this regard.

## IV. Micro-Finance for Agriculture?

As mentioned earlier, the Bank-SHG MF appears to be promising in reducing transaction costs and achieving higher levels of loan recovery. Nevertheless, adoption of similar model by PACS for agricultural financing would not only be time consuming but would impel change in their overall structure and functioning. We have, therefore, suggested experimenting community banking on some other, yet similar grounds. The idea emerges in view of changing dynamics of rural agricultural economy characterized by diversification of activities, interlocking of credit and input-output markets, inability of the RFIs to lend loans for various activities and non-diminishing importance of informal agencies.

We have argued that farmers will continue their dependence on informal agencies unless some system is introduced whereby credit is injected into

the agricultural sector on sustainable basis. It is, therefore, proposed that along with MF approach, NABARD may introduce two more institutional reforms. The approaches or the models suggested may or may not envisage SHGs route. The first model suggests channeling credit through non banking financial institutions (NBFIs) like BASIX and SHARE, input suppliers and output dealers, traders, moneylenders or other informal agencies existing in the rural areas. These agencies, operating in almost all the regions, can be actively involved in the lending business. To start with, NABARD can extend them financial support in raising their infrastructure and other requirements. Another approach can be operationalised by following a cluster approach. As part of overall institutional reforms for the agricultural sector, a novel institutional structure, called "Super Market Model" for the farmers is evolved at one place through forming linkages among all the key intermediaries engaged in agriculture business. Select NGOs or NBFIs can be approached to take a lead in initiating and operating this model with initial financial support from the NABARD and the RFIs. It is suggested that a pilot project on trial basis be launched initially in one select region.

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# LIST OF ABBREVIATIONS

| | | |
|---|---|---|
| ACRC | : | Agricultural credit review committee |
| CBs | : | Commercial banks |
| DCCBs | : | District central cooperative bank |
| GDP | : | Gross domestic product |
| GOI | : | Government of India |
| LDBs | : | Land development banks (long term) |
| MF | : | Micro finance |
| NABARD | : | National bank for agriculture and rural development |
| NAS | : | National accounts statistics |
| NBFIs | : | Non-banking financial institutions |
| NGOs | : | Non-governmental organizations |
| NPAs | : | Non-performing assets |
| PACS | : | Primary agricultural credit societies (short term) |
| PCARDBs | : | Primary cooperative agriculture and rural development bank |
| RBI | : | Reserve bank of India |
| RFIs | : | Rural financial institutions |
| RRBs | : | Regional rural banks |
| SCARDBs | : | State cooperative agriculture and rural development bank |
| SCBs | : | State cooperative banks |
| SDI | : | Subsidy dependence index |
| SHGs | : | Self help groups |
| SHPIs | : | Self help promoting institutes |
| TE | : | Triennium ending |

# INSTITUTIONAL CREDIT TO INDIAN AGRICULTURE: DEFAULTS AND POLICY OPTIONS

## I Backdrop and Objectives of the Study:

The rural credit market appears to be confronted with a paradox. The informal sources of finance, be they local money lenders, landlords, traders, etc., charge more than 20% rate of interest, often keep land as collateral against loan and have a very high recovery rate. On the other hand, rural financial institutions (RFIs) charge almost half of this interest rate, do not take land as collateral for most of the crop loans, and still face high defaults. Where and how rural financial institutions have gone wrong? From the reports of several committees and Task forces on rural credit, it appears that the RFIs, with the sole objective of eliminating informal finance through moneylenders, have always been allowing leniency in their financial policies. The result is that while informal finance still holds significance in the rural areas[1], the RFIs, especially cooperatives are heading towards a state of financial unsustainability.

The main factors behind financial unsustainability of the RFIs are stated to be overwhelming overdues or non-performing assets, high transaction cost, low financial margins and regulated interest rates. Consequent upon these, the RFIs have failed to accumulate enough resource base and are unable to mobilize speedy disbursement of credit in the rural areas[2]. There are also other problems that RFIs have failed to tackle with. These relate to inequality in the distribution of credit among various classes of people and regions, untimely delivery of credit and cumbersome procedures and formalities to transact credit. All these are major cause of concern. Therefore, it is recommended that the RFIs should be strengthened to accelerate the flow of credit to meet the credit demands of the agricultural sector and bring overall development in the rural economy.

In this context, it would be worthwhile to explore various policy and institutional measures that have been taken so far for a speedy and timely delivery of credit to the agricultural sector. Before this, it will be useful to examine the magnitude of overdues in the agricultural sector that are likely to be written off. The present study is a step in this direction. In specific, the study tries to address the following issues.

1 The AIDIS data show that from 1981 to 1991, the percentage share of outstanding debt of formal agencies in rural households' has decreased from 61.2% to 56.6% while that of informal agencies has increased marginally (RBI Bulletin 2000).

2 The statistics show that against a targeted lending of 18 percent to be given to the priority sector, the proportion of advances to agricultural sector has also declined from 16.9 percent in June 1990 to 14.3 percent in March 1996 (Puhazendhi and Jayaraman 1999).

What is the rate of recovery of agricultural loans by the RFIs? What is the extent of NPAs or overdues and the resultant bad debts in Indian agriculture across the lending institutions and states? What are the major factors impinging upon recovery of loans and building up of overdues or defaults? What policy measures have been taken to reduce the incidence of defaults and revitalize RFIs, particularly after the financial reforms in 1991 were set in? Finally, are there any new approaches through which RFIs could be revitalized?

The study is organized into five sections. After a brief introduction in Section I, Section II analyses the temporal behaviour of loan outstandings, overdues and recoveries in Indian agriculture over the period 1980-97. A methodological framework for measurement of overdues or defaults in Indian agriculture is provided and estimates are generated from 1980 to 1997. The analysis is carried out for each of the institution viz. cooperatives (short term and long terms), regional rural banks and commercial banks at all India level and across seventeen major states. This section also highlights the causes of default in the RFIs engaged in lending business in the rural areas. Section III reviews policy and institutional measures that have been taken so far to minimize the default rate and revitalize RFIs. It provides an insight into the experiences of a few South Asian countries, including India in reaching the masses and in improving the viability of financial institutions through micro finance under the self-help-groups/NGOs linkage programme. It examines the feasibility of reviving the existing rural financial institutions, in particular primary agricultural co-operative societies (PACS) on similar lines with linkage programme. Section IV of the study explores prospects of agricultural finance through non-banking financial institutions (NBFIs) and other agencies. It, then, suggests introducing a cluster approach whereby all the key players involved in the farm business are linked together for larger economic and financial benefits. The modus operandi of the proposed institutional structure and the role of NABARD in establishing and promoting it within a policy framework are also illustrated. Conclusions from the study are given in Section V.

## II Mounting Defaults in Institutional Rural Credit:

Commercial Banks (CBs), Regional Rural Banks (RRBs) and Cooperatives are the three main rural financial institutions that provide credit to the agricultural sector at the village level[3]. The co-operatives account for

3 Short-term cooperatives are called primary agricultural cooperative societies (PACS) and long term are known as primary cooperative agriculture and rural development banks (PCARDBs). Before 1995-96, the agencies under the long-term credit to agriculture were named as central land development banks (CLDB) and primary land development banks (PLDBs).

44 percent share in the rural credit flow for agriculture and 31 percent in rural deposits in terms of network, coverage and out reach. The major share is, hence cornered by commercial banks and regional rural banks.

### *II.1 Status of Loans Outstanding and Overdues of RFIs*

Lending business of any institution depends on (a) mobilization of deposits, (b) available resources for disbursement and (c) the amount of loan that is recovered for further recycling. Poor recovery of loans results into overdues. Overdues in banking parlance are defined as loans and interest thereon not repaid on due dates. The recovery of loans is, therefore, central to the smooth functioning of the credit business of financial institutions. Of the total amount that is due at different time periods, some of it is recoverable and some is irrecoverable and the latter often results into bad debts or defaults.

Annex Table 1 elicits all India picture of deposits, direct loans outstanding, overdues and loan recovery for the cooperatives, RRBs and CBs in the agricultural sector from 1980 to 1998. The information furnished indicates an improvement in the deposits mobilized and the flow of credit to agriculture by all the institutions. The behaviour of loans outstanding of all the RFIs reveals a steady increase from 1980 to 1998. Time series data on loans outstanding available from 1980 to 1993 in all the RFIs show that the outstandings have increased at an average annual rate of 5.47 percent (Annex Table 1a). RRBs have grown at a maximum average annual real rate of growth of 16.71%, followed by CBs at 9.77 percent. The PACS and LDBs have experienced lowest average real growth rates at 1.59 and 0.95 percent per annum during this period. A bifurcation of loans outstanding into two periods viz. eighties (1980-1989) and nineties (1990–1998) indicates that cooperatives have grown at a higher rate in nineties than in eighties. Wheras, RRBs have shown a substantial fall in the growth rate of loans outstanding.

The share of RFIs in loans outstanding has also displayed wide variations. As shown in Fig. 1, PACS held a maximum share in total loans outstanding of all the RFIs during TE 1982. From nineties, the share of cooperatives went down and commercial banks came in the forefront. Along with CBs, the share of RRBs was also observed to have increased over time. A slow growth in the lending business of the co-operatives can be associated with low capacity of cooperatives to generate resources through deposits as well as due to the entry of CBs and RRBs under the rural financial system in a big way.

Compared to loans outstanding, the overdues of all the RFIs together

**Fig.1a: Percentage Share of RFIs in Loan Outstandings during TE 1982**

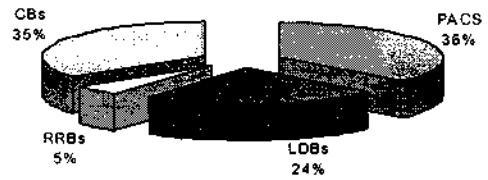



**Fig.1b:Percentage Share of RFIs in Loan Outstandings during TE 1993**

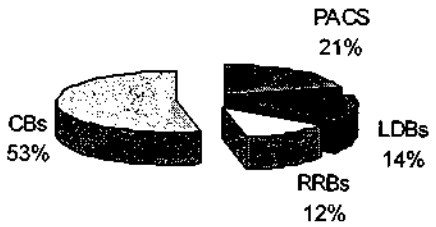
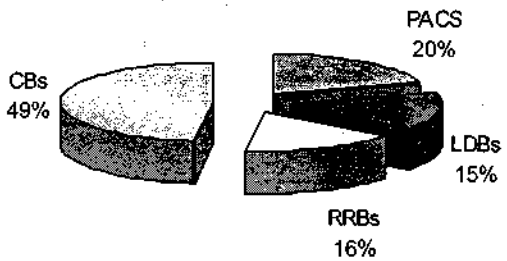



**Fig.1c: Percentage Share of RFIs in Loan Outstandings in 1997**



have grown at a slower average real annual growth rate of 4.59% from 1980 to 1993 (Annex Table 1a). The growth of overdues of RRBs was highest during eighties (30.02%) and came down to 3.3% during nineties. The overdues in commercial banks have also grown at a higher rate of 8.35% during 1980-93. We may note that while the total overdues multiplied more than 5 times over a period of two decades, the institutional share of overdues indicated a significant shift as shown in Fig. 2. During TE 1982, PACS had a maximum share of overdues (53%) followed by commercial banks (33%), LDBs (10%) and RRBs (4%). During TE 1993 and in the year 1997, while CBs held a maximum share in overdues (49%), LDBs had the lowest share (7%). Over time, the share of PACS and CBs remained high at varying level. The CBs and RRBs showed an increasing trend in the overdues by end of nineties. The same in the case of PACS and LDBs indicated a declining trend. This may be due to the fact that the share of co-operatives in total loans outstanding also declined during this period.

State wise position of loans outstanding and overdues for all the institutions taken together is given in Annex Table 2 and 3. A comparison of proportion of overdues in the TE 1982 and TE 1993 shows some interesting results. During TE 1982, Maharashtra and Tamil Nadu had highest amount of overdues, which constituted 13.7% and 12.3% of the total overdues. Two states Uttar Pradesh and Andhra Pradesh also exhibited high share of overdues (11 and 9.9% of the total).

During TE 1993, Andhra Pradesh topped the list with overdues amounting to Rs. 1414 crore per year (15.9 percent of total overdues), followed by Maharashtra and Karnataka with their overdues constitution 13 and 10 percent of total overdues. The share of overdues of Tamil Nadu and Uttar Pradesh came down drastically from 12.3 percent and 11 percent in TE 1982 to 9.6 percent and 6.5 percent during TE 1993. The share of overdues increased to nearly 2 percent for one state viz. Karnataka. Four states viz. Maharashtra, Tamil Nadu, Andhra Pradesh and Karnataka that topped the list in TE 1993 together accounted for nearly 50 percent of the all India overdues.

**Fig.2a: Percentage Share of RFIs in Overdues During TE 1982**

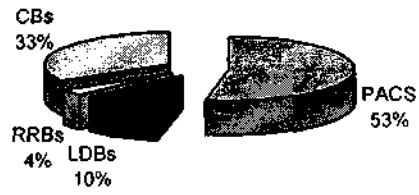



**Fig.2b: Percentage Share of RFIs in Overdues during TE 1993**

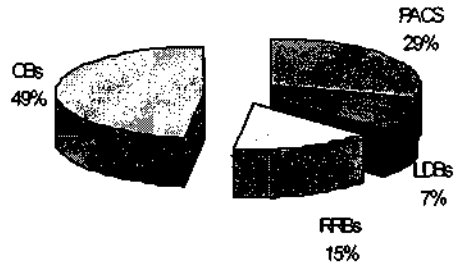
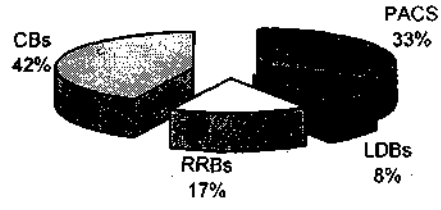


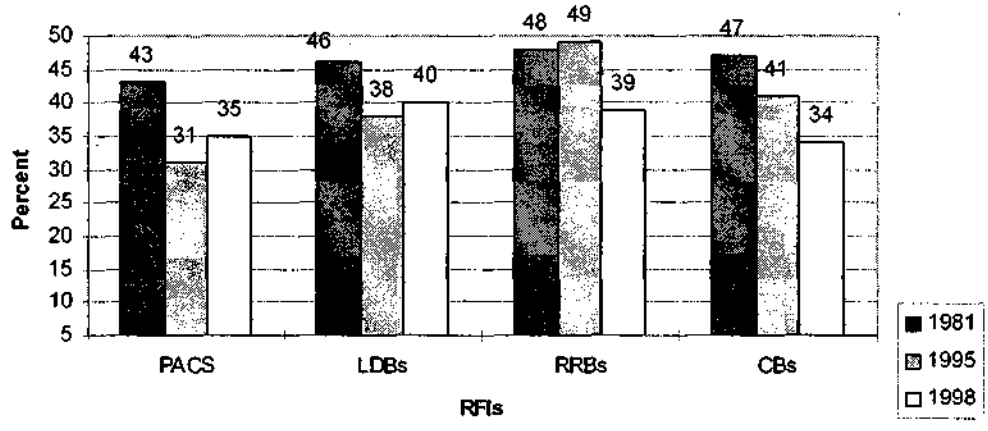

**Fig.2c: Percentage Share of RFIs in Overdues in 1997**



*II.2 Recovery Position of RFIs*

At the aggregate level, the recovery position of overdues with respect to agricultural advances, as evaluated by the percentage of overdues to demand was almost same during eighties and early nineties. It showed variations as per the institution (Annex Table 1). The share of overdues of all the institutions together ranged between 43 percent to 56 percent of demand in eighties and the share varied between 33 percent to 59 percent during nineties. The recovery performance of CBs has been quite impressive in comparison to other rural lending institutions (Fig.3). The overdues in the commercial banking system were around 47 percent of demand during the year 1981. It reduced to 41 % in 1995 and to 34% by the year 1998. This indicates that over a period of 17 years (1981 to 1998), the recovery of loans increased from 53 percent to 66 percent. This might be the reason behind an impressive increase in the credit flow to agriculture sector by commercial banks. The position of RRBs has also improved after mid nineties. The recovery position in the case of cooperatives, however, is not very impressive over the period under study. The percentage share of overdues to demand in PACS reduced from 43% in 1981 to 31% in 1995 and in LDBs it reduced from 46% to 38% during these years. Undeniably cooperatives showed some improvement during 1995 but their position again deteriorated during 1998 when overdues to demand increased by 4 and 2 percentage points. In sum, for the entire period (1980 to 1998), the picture with respect to recovery of loans in RRBs was dismal during eighties and started improving from 1995-96[4]. CBs showed substantial improvements over time.

**Fig.3: Percentage of Overdues to Demand in the RFIs**




4 By the year 1998, 18 RRBs had recovery levels of more than 80 percent, 77 banks showed recovery levels between 60 - 80 percent, 58 banks between 40-60 percent and the remaining 43 RRBs showed recovery levels of less than 40 percent (NABARD 2000b).

Compared to CBs and RRBs, the position of cooperatives (both PACS and LDBs) is still alarming though it displayed improvement in 1995.

Across states, the recovery performance from 1980 to 1997 is presented in Annex Table 4. At the all India level, there was a seven percentage point improvement in the recovery of overdues from 69 percent in 1980 to 76 percent in 1989. The recovery as discernible from the percentage share of overdues in loan outstanding shows that Assam, Gujarat, Maharshtra and Tamil Nadu displayed excellent results as overdues as a proportion to loan outstanding declined in these states over 1980 to 1989. From 1990 onwards except in two states - Gujarat and Uttar Pradesh, the recovery levels for other two states started deteriorating. Overdues as percentage of loan outstanding increased in Assam, Maharashtra and Orissa.

The overdues as a proportion of loan outstanding ranged between 25.71 percent to 31.2 percent from 1990 to 1997. Irrespective of the institutions, classification of the states on the basis of their share of overdues in total loan outstanding in 1997 exhibits that states like Kerala (8.35%), Punjab (16.95%), Rajasthan (18.7%), Tamil Nadu (17.4 %) and Uttar Pradesh (13.4%) have performed better as far as their recovery of loans is concerned. The recovery for Assam (34.56%), Bihar (31.3%), Jammu and Kashmir (34.12%), Maharashtra (45.08%) and Orissa (33.5%) is far from satisfactory (Table 1).

**Table 1: Classification of States on the basis of Overdues as a Proportion of Loans Outstanding**

| Range | States 1980 | States 1989 | States 1997 |
|---|---|---|---|
| Below 20 % | Haryana, Kerala | Jammu & Kashmir Kerala, Punjab, West Bengal, Others | Kerala,Punjab, Rajasthan, Tamilnadu,Uttar Pradesh |
| 20 to 25 % | Orissa, Punjab | Assam, Maharashtra, Uttar Pradesh | Andhra Pradesh, Gujarat,West Bengal,Haryana Himachal Pradesh, Others |
| 25 to 30 % | Andhra Pradesh, Rajasthan Uttar Pradesh, West Bengal, Others | Andhra Pr., Bihar, Gujarat, Haryana Himachal Pradesh, Karnataka, Madhya Pradesh, Rajasthan, Tamil Nadu,Tripura | Karnataka, |
| Above 30% | Assam, Bihar,Gujarat, Himachal Pradesh, Jammu & Kashmir, Karnataka, Madhya Pradesh, Maharashtra Tamil Nadu, Tripura | Orissa | Assam, Bihar, Jammu& Kashmir, Madhya Pradesh Maharashtra,Orissa, Tripura |

Deterioration in the recovery of loan results in increase in the default rate and hence mounting up of overdues. A continuous increase in the overdues, thus, inhibits the capacity of the lending institutions to raise resources, impinge upon recycling of funds and shake the confidence of the depositors. It needs to be mentioned here that not all overdues are bad debts. A number of recoveries come belatedly suggesting the need to change the due date. It is often expressed that the overdues that are not realized over a period of 5-7 years should be categorized as doubtful of recovery and hence bad debts. As shown in Annex Table 5, during 1980 to 1988 nearly 23 percent of the amount of overdues in the PACS fell under the category of overdues of more than three years. The percentage increased to 26 in the year 1989 and then started improving thereafter till it reached 15 and 18 percent by the year 1996 and 1997. The overdues belonging to over three year's category under the long term credit institutions (Land Development Banks) ranged between 36 to 40 percent from 1987-89. During 1996-98, the percentage of overdues of long-term co-operatives was at minimum 23 percent in 1996, 40

percent in 1997 and 33 percent in 1998. In the case of RRBs, the picture is grim as only 32 percent of the total overdues were falling in the category of more than three years in the late eighties. The percentage of overdues in this category doubled by the year 1997.

It is clear from the available data that PACS have shown some signs of improvement in the recovery of overdues. This is a good indication keeping in view the huge network of co-operatives in the villages and the dependence of farmers on them for their loan requirements. Nonetheless, overdues hold a significant share in the PACS as well as other institutions viz. RRBs and CBs and all these RFIs are under severe constraint as far as resources for recycling are considered. Of the total amount of overdues, only some portion is recoverable and that is the major worry of the lending institutions. Information on the amount of overdue that is not recovered or categorized as bad and doubtful debt is somehow lacking. Nearly all the institutions provide the total amount that is due without giving the details of the age structure or the amount that will be categorized as bad debts[5]. However, separate estimates of bad and doubtful debts are estimated by NABARD but that too only for the short-term co-operative structure. It is, therefore, important to investigate the magnitude of bad debts. The subsequent section attempts to estimate the extent of bad debts.

### *II.3 Estimates of Bad Debts or Defaults : Alternative Approaches*

#### (a) Approach I: Based on Age Distribution

The bad and doubtful debts are taken to be the amount of overdue that is likely to be written off by the banks. As mentioned above, all the lending institutions provide comprehensive information on the overdues. However, except for PACS, no other lending institution has ever made provisions for overdues that can be categorized as bad and doubtful debts. To date, the most comprehensive document on the subject is taken out by the RBI in 1974 under the chairmanship of C.D. Datey[6]. Attempts were then made to estimate overdues of different institutions through a field survey for the various categories defined. The survey formed part of the study for the Khusro Committee and its report (RBI, 1989). The Committee, undoubtedly made provisions for bad debts within the CBs,

5 Only exception is PACS, which gives the age structure of the overdues annually. Age structure of overdues under the long-term credit structure is available with NABARD but only for a few years.

6 The study, stressed on the need to examine the overdues from different angles such as by type of credit institutions, by purpose of borrowing, by class of borrowers, by type of area, such as *irrigated/dry or hilly or tribal or simple by administrative regions like states or districts* (RBI 1974).

PACS, LDBs and RRBs for some of the years during eighties. But, an attempt to estimate bad debts by all the operating rural financial institutions for a longer period of time (1980-89) was done by Katula and Gulati (1992). The analysis was based on the information on the estimates of overdues in agriculture as per various categories, in particular likelihood of eventual bad debts in a certain age group.

(b) Approach II: Based on Non-Performing Assets

As part of the financial reform process, the high level Committee headed by M. Narasimham (RBI 1991) recommended all the banks to compile their assets on the basis of their realizable value and to make provisioning for non-performing share in their total advances. The non-performing advance (NPA) was defined by the committee as an advance where payment of interest or repayment of installment of principal (in case of term loans) or both remains unpaid for a period of two quarters or more during the year ending. An amount under any of the credit facilities is to be treated as 'past due' when it remains unpaid for 30 days beyond due date. The NPAs or overdues are hence estimated for each of the categories viz. sub-standard, doubtful and loss assets using prudential norms and provisions[7].

The banks with international presence are recommended to reduce their gross NPAs to 5 percent by the year 2000 and 3 percent by the year 2002. The information on NPAs available for Nationalized banks, State banks, Indian banks and Corporation bank reveal that their net NPAs as percentages to net advance vary between 1.98 percent to 21.67 percent during 1998-99. In the case of long term co-operatives viz. SCARDBs and PCARDBs, the norms were made applicable from the year 1997-98[8]. The share of NPAs of RRBs in total loans and advances are estimated to be on the higher side initially at around 43 percent and gradually reduced to 27 percent by the year 1998-99 (Annex Table 7). Of the total NPAs, the highest share in all the years is of the category of doubtful assets. The status of NPAs with respect to co-operatives shows that NPAs as percentage of total loans and advances stood at 12.5 and 11 percent for long term structure and 17.8 and 14.3 percent for the short term credit structure (Annex Table 8). One aspect that is worth mentioning

7 The provisioning norms for three asset categories are given in Annex Table 6.

8 Since it is difficult to make full provisioning, RBI permitted phasing of provisioning spread over a four year period (upto 1999-2000) in the case of short term co-operative credit structure and three years for long term credit structure. The banks are also required to classify small advances of Rs. 25000 and below in these categories. Failure to do so would require them to make provision @ 15% of aggregate outstanding including performing loans. Banks are also asked to make provisions @ 0.25% on their standard advances from the year ending March 31, 2000 (RBI Bulletin 1999).

is that in view of the higher amount of loans and advances by the co-operatives as compared to RRBs, the level of NPAs in the former is much lower than that in the latter. This may be taken as indication of better recovery performance of the co-operatives compared to RRBs and their initiative towards achieving better financial health.

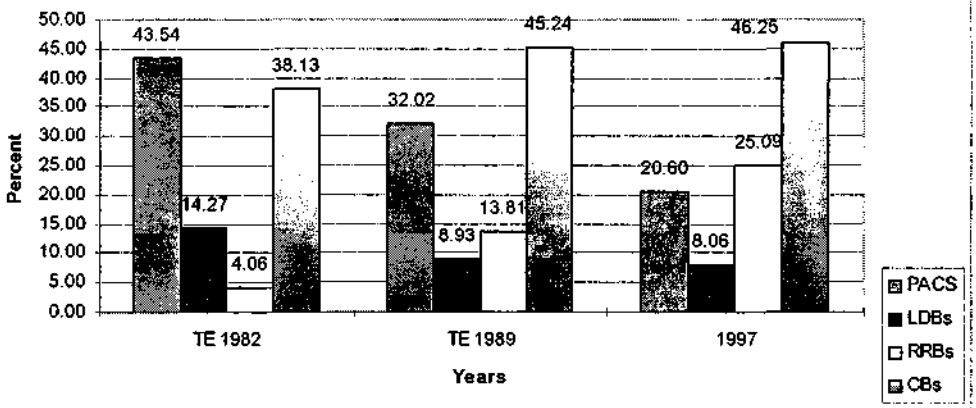
The purpose of giving details on NPAs is to work out exact magnitude of bad and doubtful debts in Indian agriculture. However, the available information is insufficient to estimate bad debts in the agricultural sector over a period of time. This is because NPAs are neither available for PACS, which are formed at the village level and nor for the commercial banks that cater to the agriculture sector. An exercise of this kind would require a detailed information on the amount of NPAs that fall within the doubtful category as per the aging structure defined. But even if data is available and defaults are worked out as per the provisioning norms, the estimates will not be comparable. This is because of change in the definition of assets classified and alterations in their phasing period. Suffice it to say that the asset classification is a good attempt to assess the performance of the banking institutions and in measuring the amount that is likely to be written off. The estimates of NPAs in agriculture are still in their infancy and it would take a few more years to assess them on annual basis and make a comparative analysis across the lending institutions.

In view of these limitations in the use of NPAs to calculate defaults, we are reverting back to Approach I. To recall, the approach is based on the guidelines given in the RBI (1989) and followed by us in a somewhat similar manner in one of the papers cited above. The quantification of bad debts or the defaults to the Indian agriculture is worked out as per the age structure of overdues given for different financial institutions. The state wise age distribution of overdues is given as per three categories, viz. (a) overdues of less than one year, (b) overdues of more than one and less than two years, (c) overdues between two to three years and (d) overdues over three years. The age distribution of overdues in the case of PACS is estimated annually by NABARD. For CBs, RRBs and long term cooperative structures, the aging pattern is available only for a few years; LDBs for 1987-89, 1996-98; RRBs for 1989 and 1997; CBs for 1987 and 1989 as shown in Annex Table 5. In the absence of data on the extent of bad debts in various credit institutions, we have relied on some reasonable assumptions regarding the overdues that are likely to be written off. The bad debts are calculated by taking 40 percent of the overdue of more than three years in the respective years. This norm is applied to the total overdues of each of the credit institutions. As mentioned in Katula and Gulati (1992), the assumption of 40 percent

of the overdue of more than three years as bad debts is supported by the estimation procedure adopted in RBI (1989), where at the all India level, 42.01 percent of the overdues of more than three years were considered as bad debts.

Going by the same assumption, we have estimated all India and state wise defaults from 1980 to 1997 for RRBs, CBs and Co-operatives-short term and long term[9]. The results are presented in Table 2. It is evident that bad debts for all the institutions increased from Rs. 215.94 crore in 1980 to Rs. 701.38 crore in 1989 and to Rs. 1532.81 crore in 1997. This indicates the amount of loss that all the banks would have to bear in the absence of recovery of loans. As far as the share of each RFIs in total bad debts is concerned, the picture is presented in Fig. 4. During TE 1982, amongst all the lending institutions, the share of bad debts in absolute terms was highest for PACS at Rs. 104.76 crore (43.54%), followed by CBs at Rs. 93.24 crore (38.13%), LDBs at Rs. 34.23 crore (14.27%) and RRBs at Rs. 10.21 crore (4.06%). The same during TE 1989 was maximum for CBs at 45.24% followed by PACS (32.02%), RRBs (13.81%) and then LDBs (8.93%). During 1997, PACS showed improvement in loan recovery and hence its share in bad debts was lower in comparison to the share of RRBs.

**Fig.4: Percentage Share of RFIs in Bad Debts**




9 Due to non-availability of data on overdues of RRBs and PACS in 1998, defaults were estimated till the year 1997.

| Table 2: Bad Debts in Indian Agriculture across States and RFIs, Rs. crore | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 |
| Andhara Pradesh | 19.89 | 18.14 | 22.97 | 29.47 | 34.64 | 45.61 | 51.11 | 59.33 | 65.61 | 75.05 |
| Assam | 1.63 | 1.64 | 2.00 | 2.23 | 2.53 | 1.35 | 1.95 | 2.08 | 3.33 | 4.15 |
| Bihar | 12.27 | 6.31 | 11.95 | 22.90 | 23.54 | 29.65 | 24.79 | 23.78 | 32.75 | 38.74 |
| Gujarat | 23.92 | 27.12 | 23.26 | 27.75 | 29.53 | 34.59 | 34.55 | 37.80 | 36.41 | 38.75 |
| Haryana | 3.50 | 4.59 | 5.96 | 7.77 | 9.43 | 11.56 | 15.91 | 18.44 | 21.79 | 30.16 |
| Himachal Pradesh | 0.85 | 1.03 | 1.14 | 1.23 | 1.34 | 1.38 | 1.90 | 2.74 | 2.82 | 3.46 |
| Jammu and Kashmir | 0.87 | 1.47 | 1.64 | 2.13 | 2.94 | 2.83 | 2.54 | 2.95 | 4.91 | 3.30 |
| Karnataka | 18.90 | 22.05 | 27.05 | 28.56 | 33.33 | 38.46 | 43.67 | 61.04 | 61.07 | 71.97 |
| Kerala | 2.87 | 4.06 | 5.30 | 6.41 | 6.99 | 11.71 | 10.67 | 11.66 | 15.27 | 20.63 |
| Madhya Pradesh | 20.34 | 21.35 | 24.47 | 26.64 | 29.47 | 34.27 | 42.96 | 46.40 | 55.37 | 58.75 |
| Maharashtra | 44.23 | 47.04 | 49.66 | 53.47 | 57.91 | 66.15 | 69.32 | 94.91 | 96.90 | 92.23 |
| Orissa | 4.73 | 6.48 | 8.07 | 11.33 | 11.97 | 15.56 | 15.32 | 19.65 | 20.54 | 20.97 |
| Punjab | 4.45 | 4.19 | 7.42 | 8.35 | 13.62 | 26.64 | 15.77 | 18.50 | 20.83 | 23.04 |
| Rajasthan | 7.97 | 10.77 | 13.19 | 16.51 | 20.57 | 24.81 | 29.95 | 37.25 | 25.02 | 54.41 |
| Tamil Nadu | 23.80 | 29.09 | 21.38 | 29.50 | 31.11 | 42.95 | 47.16 | 42.69 | 50.50 | 63.89 |
| Tripura | 0.57 | 0.43 | 0.65 | 0.63 | 1.06 | 1.45 | 1.95 | 2.10 | 2.37 | 2.43 |
| Uttar Pradesh | 16.95 | 23.01 | 27.44 | 33.75 | 40.66 | 47.09 | 53.83 | 64.63 | 66.38 | 73.23 |
| West Bengal | 6.32 | 14.53 | 17.02 | 18.96 | 23.21 | 26.31 | 27.78 | 29.70 | 31.40 | 20.08 |
| Others | 1.88 | 2.45 | 1.07 | 3.70 | 5.27 | 0.73 | 8.24 | 5.54 | 10.71 | 6.15 |
| All India | 215.94 | 245.74 | 271.64 | 331.28 | 379.10 | 463.09 | 499.38 | 581.20 | 623.99 | 701.38 |
| **Notes**: Authors' estimates based on data sources given in Annex Table 1 | | | | | | | | | | |
| No data on overdues of commercial banks from 1994 to 1996 | | | | | | | | | | |

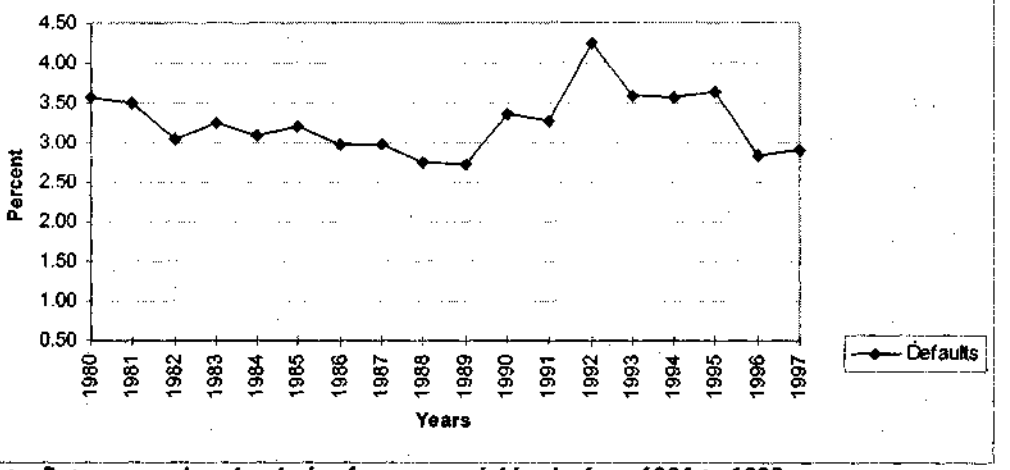
Table 2: Contd.

| | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | Share of States, 1997 |
|---|---|---|---|---|---|---|---|---|---|
| Andhara Pradesh | 103.37 | 183.55 | 225.82 | 125.36 | 69.44 | 59.68 | 68.68 | 115.88 | 7.56 |
| Assam | 5.36 | 6.84 | 8.42 | 11.00 | 6.00 | 3.76 | 8.14 | 23.20 | 1.51 |
| Bihar | 57.34 | 68.06 | 97.70 | 116.56 | 105.16 | 83.53 | 77.55 | 122.74 | 8.01 |
| Gujarat | 57.70 | 53.56 | 45.70 | 75.66 | 34.54 | 41.34 | 45.76 | 73.08 | 4.77 |
| Haryana | 37.73 | 45.69 | 39.14 | 39.33 | 26.30 | 27.89 | 39.45 | 66.38 | 4.33 |
| Himachal Pradesh | 5.10 | 4.45 | 3.75 | 4.76 | 2.64 | 3.32 | 1.77 | 6.87 | 0.45 |
| Jammu and Kashmir | 3.11 | 4.35 | 4.70 | 5.22 | 6.35 | 4.53 | 4.48 | 11.56 | 0.75 |
| Karnataka | 102.06 | 111.31 | 137.03 | 159.16 | 84.83 | 76.81 | 57.05 | 130.88 | 8.54 |
| Kerala | 30.95 | 32.01 | 36.55 | 37.26 | 22.42 | 21.41 | 5.24 | 14.55 | 0.95 |
| Madhya Pradesh | 73.35 | 98.49 | 72.68 | 75.49 | 40.08 | 35.17 | 91.85 | 141.42 | 9.23 |
| Maharashtra | 146.89 | 145.36 | 162.37 | 197.97 | 121.13 | 134.18 | 147.83 | 275.51 | 17.97 |
| Orissa | 37.94 | 31.13 | 35.98 | 46.96 | 24.14 | 26.59 | 26.76 | 63.15 | 4.12 |
| Punjab | 25.31 | 39.60 | 55.08 | 45.81 | 14.69 | 11.59 | 12.74 | 48.71 | 3.18 |
| Rajasthan | 76.47 | 53.91 | 64.43 | 71.10 | 33.02 | 31.26 | 12.98 | 56.59 | 3.69 |
| Tamil Nadu | 101.43 | 73.75 | 250.78 | 83.27 | 25.68 | 164.07 | 38.13 | 111.34 | 7.26 |
| Tripura | 3.25 | 15.43 | 22.86 | 33.39 | 26.75 | 29.72 | 30.24 | 35.62 | 2.32 |
| Uttar Pradesh | 84.11 | 86.05 | 95.21 | 100.39 | 54.42 | 48.76 | 75.77 | 130.69 | 8.53 |
| West Bengal | 25.36 | 30.99 | 38.44 | 48.01 | 29.71 | 31.10 | 42.53 | 83.09 | 5.42 |
| Others | 13.75 | 16.27 | 16.83 | 17.96 | 3.22 | 5.70 | 3.85 | 21.56 | 1.41 |
| All India | 990.57 | 1100.78 | 1411.45 | 1294.66 | 730.51 | 840.41 | 790.81 | 1532.81 | 100.00 |

Across states, of the total bad debts in 1980, Maharashtra accounted for a maximum share of 20.8%, followed by Gujarat and Tamil Nadu (11.2% each) and Madhya Pradesh (9.6%). For the year 1997, again Maharashtra topped the list with 16.1% of the total share of default. Next to Maharashtra, Madhya Pradesh accounted for highest share of 8.3% in the total, followed by Karnataka and Uttar Pradesh (7.6% each) and Bihar (7.2%)[10].

The proportion of bad debts in total loan outstanding of each institution and state is also worked out and the estimates are given in Table 3. The temporal behaviour of defaults as a proportion of loan outstandings from 1980 to 1997 is displayed in Fig.5. It is evident that from 1980 to 1989, the share of bad debts in total loan outstanding showed a declining trend. From an initial share of 3.58% in 1980, it attained a lowest level at 2.72% in 1989 and then started augmenting till it reached a maximum (4.23 %) in 1992. Thereafter, the share of bad debts in total loan outstandings started falling with slight fluctuations and nearly reached bottommost (2.91%) by the year 1997.

**Fig.5: Bad Debts as %age of Loan Outstandings in Indian Agriculture**




***Note: Data on overdues is missing for commercial banks from 1994 to 1996.***

If one goes by classification of overdues as per the new asset classification (NPAs), then the estimates would not be strictly comparable. For instance, total NPAs (sub-standard, doubtful and loss category) were estimated to be 36 percent of the gross loans and advances (loan outstandings) of

10 The estimates of bad debts may differ slightly from the estimates calculated by Katula and Gulati (1992). This is due to the revised data taken for the co-operatives in the present study.

| Table 3: Bad Debts as a Percentage of Total Loans Outstanding across States and RFIs | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| States/Years | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 |
| Andhara Pradesh | 2.75 | 2.17 | 2.33 | 2.54 | 2.47 | 2.66 | 2.67 | 2.74 | 2.60 | 2.63 |
| Assam | 10.17 | 8.61 | 6.88 | 6.63 | 5.05 | 2.02 | 2.03 | 1.66 | 2.15 | 2.24 |
| Bihar | 5.13 | 2.32 | 3.34 | 5.23 | 4.73 | 4.95 | 3.55 | 2.85 | 3.00 | 3.06 |
| Gujarat | 5.63 | 6.03 | 4.13 | 4.63 | 4.44 | 4.35 | 3.67 | 3.51 | 2.67 | 2.74 |
| Haryana | 1.20 | 1.35 | 1.33 | 1.53 | 1.58 | 1.70 | 2.05 | 2.10 | 2.16 | 2.62 |
| Himachal Pradesh | 3.46 | 3.66 | 1.46 | 2.52 | 2.31 | 1.77 | 2.41 | 2.75 | 2.40 | 2.67 |
| Jammu and Kashmir | 4.94 | 6.92 | 5.04 | 5.80 | 6.68 | 4.29 | 5.33 | 6.18 | 8.03 | 3.72 |
| Karnataka | 4.45 | 4.50 | 4.23 | 4.06 | 3.68 | 3.35 | 3.07 | 3.66 | 3.30 | 3.36 |
| Kerala | 0.83 | 0.92 | 0.99 | 1.03 | 0.91 | 1.23 | 0.93 | 0.86 | 0.97 | 1.20 |
| Madhya Pradesh | 5.20 | 4.68 | 4.41 | 4.36 | 3.99 | 3.84 | 3.86 | 3.47 | 3.51 | 3.19 |
| Maharashtra | 6.41 | 5.78 | 4.85 | 4.73 | 4.28 | 4.16 | 3.83 | 4.34 | 3.81 | 2.96 |
| Orissa | 2.44 | 2.74 | 2.61 | 2.86 | 2.46 | 3.03 | 2.63 | 3.14 | 2.92 | 3.09 |
| Punjab | 1.27 | 0.86 | 1.21 | 1.15 | 1.43 | 2.75 | 1.44 | 1.44 | 1.51 | 1.44 |
| Rajasthan | 2.84 | 3.07 | 2.88 | 2.96 | 3.21 | 3.42 | 3.52 | 3.81 | 2.20 | 4.25 |
| Tamil Nadu | 4.05 | 5.15 | 2.79 | 3.45 | 2.98 | 3.48 | 3.30 | 2.69 | 2.58 | 2.80 |
| Tripura | 7.38 | 3.50 | 3.34 | 2.65 | 3.87 | 4.20 | 4.49 | 3.94 | 3.31 | 2.60 |
| Uttar Pradesh | 2.22 | 2.56 | 2.47 | 2.64 | 2.73 | 2.77 | 2.80 | 2.96 | 2.72 | 2.65 |
| West Bengal | 2.68 | 5.57 | 5.50 | 5.48 | 5.88 | 5.60 | 4.74 | 4.48 | 4.21 | 2.52 |
| Others | 6.47 | 5.24 | 1.35 | 3.65 | 3.85 | 0.35 | 3.06 | 1.79 | 3.53 | 1.59 |
| All India | 3.58 | 3.50 | 3.05 | 3.26 | 3.09 | 3.21 | 2.97 | 2.99 | 2.76 | 2.72 |
| Note: No data on overdues of commercial banks from 1994 to 1996 | | | | | | | | | | |

Table 3: Contd.

| States/Years | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|---|---|---|---|---|---|---|---|---|
| Andhara Pradesh | 3.27 | 2.76 | 5.09 | 2.51 | 2.23 | 1.68 | 2.50 | 2.82 |
| Assam | 2.05 | 2.64 | 2.92 | 3.90 | 4.54 | 2.50 | 3.98 | 4.02 |
| Bihar | 3.66 | 4.72 | 5.94 | 6.67 | 11.64 | 8.64 | 9.63 | 6.44 |
| Gujarat | 3.63 | 3.16 | 2.36 | 3.72 | 2.76 | 2.99 | 2.99 | 2.48 |
| Haryana | 2.91 | 3.41 | 2.55 | 2.48 | 2.42 | 2.38 | 2.38 | 2.27 |
| Himachal Pradesh | 3.65 | 3.26 | 2.27 | 2.74 | 2.56 | 2.63 | 1.16 | 2.21 |
| Jammu and Kashmir | 2.96 | 5.29 | 6.34 | 7.58 | 10.53 | 6.79 | 6.19 | 6.99 |
| Karnataka | 4.08 | 4.53 | 5.25 | 5.51 | 5.36 | 4.34 | 2.61 | 2.71 |
| Kerala | 1.53 | 1.44 | 1.45 | 1.31 | 0.89 | 0.82 | 0.18 | 0.66 |
| Madhya Pradesh | 3.45 | 4.21 | 3.95 | 4.17 | 5.26 | 4.10 | 4.49 | 3.47 |
| Maharashtra | 4.09 | 4.05 | 4.07 | 4.88 | 4.42 | 4.15 | 6.08 | 5.63 |
| Orissa | 4.93 | 4.23 | 4.64 | 5.49 | 4.86 | 4.77 | 4.26 | 4.56 |
| Punjab | 1.34 | 1.95 | 2.45 | 2.03 | 1.46 | 0.96 | 0.89 | 1.55 |
| Rajasthan | 5.20 | 4.93 | 4.32 | 4.28 | 3.78 | 3.02 | 1.11 | 2.63 |
| Tamil Nadu | 3.70 | 2.62 | 8.65 | 2.21 | 1.70 | 10.48 | 1.32 | 1.53 |
| Tripura | 2.98 | 15.87 | 21.44 | 27.06 | 26.75 | 26.76 | 30.04 | 25.08 |
| Uttar Pradesh | 2.99 | 2.74 | 2.76 | 2.69 | 2.82 | 2.17 | 1.84 | 1.86 |
| West Bengal | 2.85 | 3.39 | 4.19 | 5.56 | 8.98 | 8.12 | 5.11 | 3.98 |
| Others | 3.72 | 4.49 | 4.52 | 5.30 | 5.49 | 8.70 | 7.33 | 4.05 |
| All India | 3.37 | 3.27 | 4.25 | 3.59 | 3.56 | 3.64 | 2.83 | 2.91 |

Rs. 8711 crore. Further information available on age distribution of overdues and NPAs for RRBs for the year 1997 shows that overdues of more than three years constituted 62 percent of the total overdues in June end. The same under the doubtful category, which takes NPA of more than three years represented 64 percent of the total NPAs by March 1997. Apart from overdues under doubtful category, one has to consider overdues or NPAs under the loss category, which constituted 12.5 percent to total NPAs in that year. This would essentially mean that if one takes recourse to new methodology of measuring the percentage of overdues of more than three years, then the overdues and hence the likely bad debts would be much higher than what it would be as per the age distribution method. The percentage of bad debts to loan outstanding as per age distribution method is estimated to be 4 percent in the year 1997 for RRBs. Using provisioning norms under NPAs, default is expected to be approximately 17 percent of the loan outstanding, if 10 % of the NPAs in sub-standard category, 50% of NPAs in doubtful category and 100% of NPAs in loss category is considered.

Similarly, for long term co-operatives (SCARDBs), the share of NPAs in loans outstanding in 1998 was 14.2 percent. Of the total NPAs, NPAs under more than three year's category, called doubtful assets constituted 41 percent while the same (overdues over three years) as proportion to total overdues were worked out to be 27.3 percent. The loss assets were however estimated to be 1 percent of the total NPAs during 1998. The bad debts as based on the provisioning norms works out to be 3.9 percent of the total loan outstanding. The same under old methodology is estimated to be 1.47 percent. This in a way indicates that the assumption of 40 percent of the overdues of more than three years, taken to be bad debts is on the lower side in the case of both RRBs and SCARDBs. A re-estimation of defaults to Indian agriculture based on provisioning norms is possible only if detailed data set on asset classification for all the institutions is made available.

### *II.4 Factors behind Defaults:*

How and in what ways high default rate can jeopardize the whole financial system in the rural areas hardly requires any emphasis. An important issue, therefore, is to explore the factors behind the high default rate and the measures that have been taken to minimize it. The Khusro Committee's (RBI 1989) identified several causes of defaults as reported by the borrowers. A categorization of the causes, given in Annex Table 9, into internal and external to the system indicates that the external factors are essentially related to non-viability of agriculture. These can

be subdivided into natural calamities, inadequate income generation and factors contributed by other agencies. For instance, in a large number of rural areas the farmers fail to get lucrative prices for their produce due to absence of infrastructural facilities and hence lack of forward and backward linkages within the existing market. There is a mismatch between the time of credit delivery and production period. The faulty government policy of debt relief measures, inadequate grace period, particularly in the case of longer period investments and interest/credit subsidy/concessions etc. are quite common. The internal factors like defective assessment of the loan, ineffective supervision and absence of timely action also contribute substantially to low recovery of loans.

Puhazhendhi and Jayaraman (1999) and NABARD (2000a) observed that consequent upon introduction of prudential accounting norms, ageing of overdues has added another dimension to the problem of mounting overdues. At first the banks have to classify overdues as NPAs and then have to make provisions against the estimated amount. Another important factor behind non-payment of rural loans and accumulation of overdues is realized to be associated with the high transaction costs for funds coupled with lower financial margins. High transaction costs add to financial cost of loans and make the project unviable. The location of bank branches, staff patterns, nature and volume of business, pattern of deposit mix, volume of loan outreach, number and size of loans disbursed, credit-deposit ratio, and a margin to cover cost of funds as well as expenses in sanctioning, supervising and recovery of loans etc., are some of the factors that might influence the transaction costs of bank branches, thus, affecting the viability of banks as a whole. Various banks and individual researchers have quantified the transaction costs of banks and their impact on viability. These work out to be 6.0 per cent and 6.99 per cent of agricultural loans disbursed by commercial banks and regional rural banks (ACRC 1993). How to reduce this cost is a major cause of concern among all the financial institutions.

## III Containing Defaults: Institutional and Policy Changes

In order to overcome financial, functional and other weaknesses that plague many RFIs, RBI and NABARD have taken several policy measures in the recent past. This section examines the major steps introduced to minimize the defaults as well as revamp RFIs after the financial reforms in 1991 were set in. It also highlights various suggestions that are proposed in the literature on the subject.

### *III.1 Recovery Acts, Re-capitalization, Interest Rate De-regulations & Other Incentives*

Under the existing system, the rural financial institutions take recourse to legal measures, such as suit filing, obtaining decrees and execution to recover the loans. The existing laws have difficult and lengthy modus operandi and are often not conducive in achieving a high level of loan recovery. The Crop Insurance Scheme for major food grain crops viz. wheat, paddy, millet, oil seeds and pulses, which has long been operational to protect the farmers from natural calamities is also largely proved to be a failure. Now, in some states, State Recovery Acts have been found to be effective in fast recovery of loans. Lok Adalats have also come into force to settle cases where recovery of loan is made through compromise. Recently, with an aim to bring match between credit and production, a system of focused lending through establishment of a large network of branches and expansion of the area have been initiated by RBI. Accordingly, "Service Area Approach" for the commercial banks is introduced, which is supplemented by the Local Areas Banks scheme (NABARD 2000a & b).

There are other developments in the rural banking sector, which emanated in the nineties when financial sector reforms (as suggested by the Narasimham Committee report on financial systems, RBI 1991& 1998) were introduced in the country. In brief, the policy measures introduced for the overall development of the financial system include deregulation of the lending rates in some cases, reduction in the budgetary support and concessionality of resources, preparation of Development Action Plans, introduction of prudential norms for income recognition and asset classification for all the RFIs, liberalization in investment policies and non-fund business and re-capitalization and re-structuring of RRBs. As part of reform measures, RRBs are suggested to increase their profitability through enlargement in their scope of lending to bigger borrowers and change in their interest rate structure in line with the commercial banks. As a result, RRBs have shown an improvement in their working results from the year 1998.

In the case of cooperatives, the interest rate structure has freed in respect of deposits and lending with a minimum lending rate of 12 percent. Now, the LDBs are also encouraged to formulate appropriate schemes for resource mobilization by tapping the market. NABARD has also initiated a process of Development Action Plans for making district level co-operative credit institutions viable. A "Co-operative Development Fund" with an initial corpus of Rs. 10 crore in 1992-93 and further Rs. 20 crore in 1992-93 has also been established from the year 1992-93. The fund

is to be utilized in supporting PACS for mobilizing resources, achieving better working results through human resource development, building up of better Management Information System and improving functional efficiency through conducting special studies (NABARD 1998a & b).

Apart from above measures, several other measures are suggested for the overall re-vitalization of RFIs and in particular, cooperatives. It is pointed out that as a result of income recognition and asset classification, provisioning of bad and doubtful debt etc., the rural banks are confronted with extending quality business. This may restrict the flow of new loans. Therefore, a system of incentives related to performance of the managers should be devised and proper rewards are given to the bank staff for their performance in recovering the loans. Another suggestion is to make co-operatives strong, viable and self sustaining financial institutions through their restructuring, by first, opting for delayering i.e. removing of one or more tiers in the co-operative system and second, by integrating the short term and long term structures (Satyasai and Badatya 2000)[11]. Other solutions suggested are giving more autonomy to the lending institutions by reducing political interference and at the same time making them accountable for their financial results (Rao and Gulati, 1999; Puhazhendhi and Jayaraman, 1999).

A beginning can be made by following the suggestions given in R.V. Gupta Committee report (RBI 1998) on Agricultural Credit through Commercial Bank and Jagdish Capoor Task Force report on cooperative credit system (NABARD 2000a). Both the reports suggest that the procedures and methods of working should be simplified to ensure easier accessibility to the borrowers. Secondly, field publicity campaign should be evolved to improve the recovery climate. Thirdly, incentives be given to prompt repayers, such as interest benefit or rebate besides offering a finer interest rate to those who opt for a savings module linked to the loan product (NABARD 2000a & b). The report of the Task Force has also emphasized on introducing flexibility in the interest rates, greater autonomy to the cooperatives to make them 'member driven' organizations, human resource development, discontinuation of loan waiver schemes and interest rate subsidies, applicability of debt recovery tribunals (DRT) to cooperatives and internal checks. While opposing the idea of delayering in the cooperative banks, the report supports its restructuring through voluntary mergers at the village (ground) level.

11 Satyasai and Badatya (2000) have calculated relative cost efficiency under single and two tier structures in details.

### *III.2 Technological Innovations:*

During 1998-99, the RBI introduced technological innovations in the rural financial system through mobilization of 'Kisan Credit Cards' to the farmers by the public sector banks. This is done basically to make easy and timely availability of short term credit to the rural households as well as to give them freedom to utilize loans for various purposes. By March 2000, 3.77 million Kisan Credit Cards with an aggregate credit of Rs. 40.1106 billion were issued. In all, 169 RRBs, 206 DCCBs and 2 SCBs have participated in the scheme. In addition, 27 public sector banks have issued 1.98 million cards till March 2000 (NABARD 2000a).

Along with Kisan Credit Cards, other technological innovations like Automated Teller Machines (ATM) and 'SMART Cards' are suggested to be introduced in the rural areas. It is stated that the technology led banking process will lower the transaction cost, enhance customer satisfaction and bring cost efficiency due to reduction in staff and a wide range of services. In this context, removal of infrastructural constraints like power and telecom services in the rural areas will be a pre-requisite (Reddy 2000).

### *III.3 Micro Finance as a Viable Business for RFIs:*

As part of micro finance[12] NABARD launched a Bank-Self help group (SHG) linkage programme on pilot basis in 1992. The idea of introducing the programme emanated mainly from the successful experiences of the financial institutions viz. Grameen Bank (GB) in Bangladesh, Bank Rakayat Indonesia Unit Desa (BRI) and Badan Kredit Kacamatan (BKK) in Indonesia and Bank for Agriculture and Agriculutral Credits (BAAC) in Thailand. The linkage programme under the aegis of NABARD aims to reach the unreached, improve living standards of poorer sections of rural society, and achieve high deposit, credit mobilization and recovery of loans. The loan amount is tied up with the savings of the members of SHGs for lending within the group in an informal manner. The SHGs formed could be merely savings and credit groups or additionally they can also be undertaking activities, such as joint farming, watershed development and non-farm activities etc.

12 The term microfinance refers to programme meant for providing credit for self employment and other financial and business services (including savings & technical assistance) to very poor persons (Micro credit summit, 1997, draft declaration and plan of action, quoted in Basu and Jindal 2000, Singh & Gain 1995).

Since the MF programme of NABARD is within the orbit of official regulated system, it will be useful to review it in some details. The analyses may also throw light on some of the ways to revitalize and revamp cooperatives that have also been working on similar principles of group lending. Several questions can be raised to evaluate the Bank-SHGs linkage programme. To point a few:

★ What is the performance and progress of Bank-SHGs linkage programme so far?

★ Going by the International experience on micro finance, what lessons are to be learnt by the Indian RFIs?

★ What are the prospects of fast replication of the programme across the states?

★ Can MF provide any directions to cooperatives and other RFIs in achieving high recovery of agricultural loans?

*III.3.1 Progress of Bank-SHG linkage Programme:*

The programme is operational in nearly 20 states in India and is actively channeling credit to the poorer sections of the society for mainly non-farm activities. Beginning from 255 SHGs linked with banks during 1992-93, it reached 14,000 SHGs by March 1998 and to 94645 by March 2000. The amount of bank loan routed through SHGs increased from Rs. 33.2 million (0.74 million $) to Rs. 237 million (5.26 million $) and to Rs. 1929.8 million (42.88 million$) by March 2000 (Annex Table 10-12). Approximately, 0.25 million families are benefited by the linkage programme by 1998. In all, 85 percent of the groups linked with the banks are formed exclusively by women (NABARD 1998c & 2000a).

A total of 26 commercial banks and 46 RRBs have participated in the linkage programme. The banks are suggested to select the SHGs for linkage programme on the basis of their functioning over a period of atleast six months, genuineness of the group formation and homogeneity within the group. The experiments on the linkage programme were conducted through three different models (b to d) as mentioned below:

(a) Model 1: represents banks lend directly to the ultimate borrowers without having NGOs/self help promoting institutions (SHPIs) and SHGs as intermediaries ;

(b) Model 2: represents banks lend directly to the borrower by forming SHGs;

(c) Model 3: represents banks lend to SHGs to lend to borrowers with NGOs/SHPIs as non-financial intermediaries;

(d) Model 4: represents banks give credit to NGOs/SHPIs to lend to SHGs to lend to the ultimate borrowers.

In-house studies by NABARD have been carried out in a few states to examine the impact of MF programme on members of the SHGs. The evaluation of the programme reveals that it benefited poor people in raising their levels of income and has facilitated them to be more self reliant through promotion of productive activities. From banker's point of view, compared to conventional bank lending in the rural areas, lending through SHGs has helped the banking institutions in achieving high recovery performance through peer pressure and in substantial reduction in the transaction cost to the small borrowers (Puhazhendhi 2000 & Rao 2000). The transaction costs estimated across the four models by Puhazhendhi (1995) at the all India level and by a few others for selected banks are furnished in Annex Tables 13-15. The available information indicates that transaction costs constitute around 3.68% of the total loan amount. The same cost for borrowers under the SHGs route is reduced by 21 to 41% compared to situation under direct lending.

While the linkage programme is gaining wider acceptance and appears to be promising, there are a few observations that go contrary. As Harper (2000) writes, the linkage programme is progressing very slowly. It has covered only 0.04 percent of the total population in India so far. Further, there exists about 75,000 commercial and rural bank branches in the country. If it were assumed that each of the existing SHGs was the only one, which had to be financed would mean that hardly 3 percent of the total number of bank branches have entered into this business.

It is, therefore, important that some independent agency investigates the programme in its entirety. The impact of the programme, financial viability, prospects of outreach, replication across the states, expansion in the bank branch network, challenges faced, extension to agricultural financing are some of the aspects which need thorough evaluation. In the subsequent sections, we have tried to evaluate a few aspects of the Bank-SHGs linkage programme in India on the basis of a few select studies and international successful experiments in micro finance. The focus is mainly on the progress of programme in terms of outreach and financial sustainability, challenges that are faced in replication of the programme across the regions and across other non-farm and farm activities.

### *III.3.2 International Experience in Micro Finance : Challenges Faced*

There are four prominent success stories in three Asian developing countries. These are the Bank for Agriculture and Agricultural Credits (BAAC) in Thailand, the Badan Kredit Kacamatan (BKK) and the Bank Rakayat Indonesia Unit Desa (BRI-UD) in Indonesia, and Grameen Bank (GB) in Bangladesh. A detailed analysis of each RFI, including Bank-SHG programme of India is presented in Annexure I.

In brief, a collation of experience of select RFIs on MF, reveal that MF in all the four cases was initiated in early seventies. Strong and motivated people head these RFIs. The RFIs and the members have complete autonomy and participate equally in the decision making process. Though there exists large differences as well as similarities among the functioning of RFIs, the RFIs have achieved considerable success in mobilizing savings of the poor and in delivering them credit on timely basis for meeting both consumption and production requirements. A few parameters that highlight the progress of the RFIs are given in Table 4.

The average loan outstanding is maximum ($560 million ) in BAAC followed by BUD at $290 million. With exception of GB, the three RFIs have considerably improved upon their financial sustainability, measured on the basis of subsidy independence index[13] (Yaron 1992 and 1994). Innovative steps, such as mobile banking have been introduced to provide low cost savings and lending services to very poor clients. Incentives in the form of rewards are given to the borrowers as well as bank staff involved in the programme after proper training on many aspects is imparted. All these factors have made Asian RFIs as successful examples of MF.

13 Subsidy dependence index (SDI) measures explicit and implicit subsidies (including the imputed cost of the RFIs net worth) as a percentage of the RFIs loan portfolio times the average onlending interest rate. It yields the percentage increase that is required in the RFI average on-lending interest rate in a given year to compensate for the elimination of subsidies (i.e. to equate the return on equity, net of any subsidy received, with the opportunity cost of funds) (Yaron 1992).

**Table 4: Summary View of Outreach: Loans and Savings and SDI, 1989**

| Indicator | BKK | BUD | BAAC | GB |
|---|---|---|---|---|
| 1. Volume of loans outstanding (million dollars) | 13 | 478 | 1.1 | 30 |
| 2. Average annual assets: real growth rate over preceding 3 years(%) | 15 | 36 | 4 | 34 |
| 3. Minimum loan size | 5 | 14 | – | – |
| 4. Average outstanding loan (dollar) | 26 | 290 | 560 | 80 |
| 5. No. of savers/staff member | 267 | 458 | – | 127 |
| 6. Value of savings deposits/ staff member (dollar) | 1,400 | 39,400 | 58,800 | 2,800 |
| 7. No. of loans/staff member | 272 | 120 | 203 | 127 |
| 8. Value of outstanding loan portfolio/staff member (dollar) | 6,900 | 29,300 | 131,800 | 4,900 |
| 9. No. of savings account (millions) | 0.50 | 6.30 | 1.68 | 0.66 |
| 10. Volume of savings (million dollars) | 6 | 85 | 274 | 24 |
| 11. Subsidy Dependence Index (SDI) (%) | | | | |
| (1987) | 24 | 3 | 28 | 180 |
| (1989) | 20 | – 8 | 26 | 130 |

*Source*: Yaron (1994).

Where does Indian Bank-SHGs linkage programme stand? In view of the successful experiences across the four RFIs, Bank-SHGs, though progressing fast in number and cumulative loan amount, appears to be in its initial stages. In the absence of complete information and evaluation of each SHGs, nothing conclusive can be said about the growth of the assets of SHGs, compatibility of the interest rates being charged amongst the members, impact on members' socio-economic status and so on. Undeniably, the programme is self-ruling with no government intervention and bureaucratization, interest rates are deregulated, obligatory savings exist, and bank staff and NGOs are sensitized. But it is still in its pilot phase and has to go a long way in streamlining the programme across all the RFIs. Further, the programme has to improve upon effective delivery mechanisms through mobile banking and incentives to bank staff and the members involved. The RFIs and the intermediaries have to overcome

the constraints that they face during the process[14]. The cost of forming and assessing a SHG is estimated to be around Rs. 7000 (Harper, Esipisu, Mohanty, and Rao 1998). Research needs to be carried out to find ways to reduce the cost of forming SHGs. The subsidy dependence index, worked out for 11 banks in India, is estimated to be 133 percent (Mosley 2000). This indicates that the members' charge a lower rate of interest on lending and have to increase the ongoing interest rate by more than 20 percent for achieving financial self-sustainability. Some empirical work has to be undertaken to explore the kind of incentives to be given to borrowers and staff as well as the rate of interest to be charged to attain financial sustainability of the programme in the long run.

### *III.3.3 Replication of MF within and across the states*

At present, the programme is working in 20 states and the concentration is mainly in the southern states viz. Karnataka, Kerala, Orissa, Andhra Pradesh and Tamil Nadu. It is, therefore, necessary to explore the prospects of fast replication of the programme within and across other regions. The experience emanating primarily from literature on MF indicates that the key factor behind replication would be an effective social mechanism that could serve to lower transaction costs, while supplying effective peer pressure for the sound screening of loan applicants and for high rates of loan collection (Yaron 1992, 1994). Economic and political factors in a certain region would also be important factors. As Hossain (1988) writes, the programme can suitably be replicated in only those regions where there is surplus labor that faces poverty and unemployment, both in the farm and rural non-farm sectors. Infact, this argument may not be the likely case in India because the flow of credit under the SHGs programme is unevenly distributed, with a major proportion being accounted for by five states mentioned above. The ACRC (1993) observed that smoother and faster flow of rural credit in relatively developed regions are linked to higher credit absorption and investment capacities in these regions.

In any situation, due to location specific physical and socio-economic environment, the implementation and success of the programme will vary between different regions that too within the same state. For example, group formation may not work in the well off Northern states like Punjab and Haryana where the loan amount is of high volume and is primarily taken by individuals for production purposes. Similarly, SHGs cannot be

14 In some cases, constraints are related to the irregularity in savings among the members, irregular group meetings, absence of regularized system of weekly/monthly repayments of loans by members, insistence on collateral by banks and insistence of bank branches for depositing the entire savings of SHGs with them.

formed in the hilly North-Eastern regions which are sparsely populated, lack physical infrastructure and investment opportunities and also find difficulty in reaching and interacting with the bank officials. In such regions, different kinds of models will have to be worked out on experimental basis to see the feasibility of group formation, scope for income generating activities, mode of credit delivery by the banks and nature of functioning of the NGOs.

Notwithstanding, the foremost task in all the regions is the formation of small homogeneous groups of poor people. Homogeneity may be in terms of caste, economic status and sex of the members. In areas where caste feelings are high, mixed caste groups do not function well. Similarly, when mixed groups of men and women are formed, various types of problems arise. Forming the poor into groups is a lengthy and time-consuming process. Mobilizing the poor, sensitizing them to form a group, dealing with the resistance and suspicion among the members require skill, patience and right aptitude and also involve cost, which needs to be worked out in each case. It is highlighted that grassroots level organizations working close to rural masses, such as NGOs, are best suited for SHG formation. Their absence in an area can inhibit wide scale adoption of the programme.

The report of the Task Force on micro finance has already advised banks to extend micro credit to individual borrowers either directly or through any intermediary. This would be reckoned as part of their priority sector lending. It also emphasized on providing equity, start up capital and capacity building funds for existing and emerging institutions engaged in MF (NABARD 2000a). A few apprehensions are, however, observed in this regard. At the first instance, the bank staff may not be sensitive to social and economic issues as the NGOs are. Secondly, banks may have priorities other than devoting time to formation of SHGs[15]. Thirdly, experience from GB in Bangladesh points out that the banks under MF mechanism have to initiate non-financial services for the poor, such as marketing of their produce, which may not be in tune with their main banking business. There is no doubt that the task is challenging and it requires collective action on the part of banks and NGOs as well as the government.

15 See NABARD (1995a) for details on the perspectives of NGOs and bank staff regarding the SHGs linkage programme.

### *III.3.4 Extension of Bank-SHG Linkage Programme to Agricultural Finance:*

Another important issue that deserves attention is whether the RFIs should extend the linkage programme to agricultural and allied activities or not. The issue is important to analyze because the major loan requirements in rural areas emerge mainly from the agricultural sector where only growth (leaving out poverty) is the sole agenda. And because of the loans advanced to agricultural sector, the RFIs are plagued with high default rates. Apart from this, there are many other important reasons why extension of MF programme to agricultural financing should be explored. These are:

(a) the loans extended under both the SHG linkage programme and Primary Agriculture Co-operative Societies (PACS) originate from joint efforts of people and financial institutions,

(b) the RFIs have to revitalize themselves by reducing defaults and SHGs programme seems to have potential in achieving this.

(c) there is an increased commercialization and diversification in the agricultural activities away from crop production to dairy, poultry, floriculture etc. within the rural areas and the conventional lending system is unable to fulfill all these requirements,

(d) the MF meets both consumption and production needs of the people compared to the conventional system that caters only to the production needs,

PACS and Formation of SHGs

At the outset, it would be worthwhile to explore whether PACS can run on the principles of Bank-SHGs programme. SHGs linked to the formal financial institutions is based on the philosophy of co-operation, which has long been adopted and practiced by the village level co-operative societies, called PACS. What is new about the SHGs is that these are informal homogenous small groups of poorer people who desire to uplift themselves economically and in due course are ready to mobilize their savings to have access to the formal credit. These are backed by banks and NGOs within an informal framework of operation with respect to flexible rate of interest charged, tie up of savings and lending, progressive lending procedures and no collateral security. Compared to these, the co-operative societies with their large size and heterogeneous characters

are driven by the state/government to provide easy accessibility to formal credit to the members without pressurizing them to mobilize their savings.

The members of the co-operatives were supposed to abide by certain rules and regulations imparted to them by the state and the bureaucracy regarding submission of forms, collateral security and so on. Over time, the result was low deposits/savings and hence poor resource base, high dependence on borrowings, high transaction costs and low margins, restricted entry of small farmers, cornering of loans by influential members, mounting overdues and politicization. The policy of giving loans to weaker sections at rates lower than the market rates, particularly under the anti-poverty programmes and otherwise resulted in acceleration of small accounts. With subsidized interest rates and low recovery from these accounts, the bank staff of all the RFI got disinterested in microfinancing though they are bound to lend 10 percent of the loans to weaker sections under the priority sector lending[16].

The interest has been revived again with the upcoming of NGOs as facilitators of promoting overall development at the grassroots and operating outside the legalized structure of banking system for delivering and monitoring credit. The strategy followed under the SHG linkage programme very well meets the consumption and production requirements of the poor without inhibiting their ability to repay timely loans to the bank and there are obligatory savings. This, however, is not the case under PACS. Apart from this, the focus of the two programmes (SHGs and Co-operatives) differs on many other accounts. For instance, the SHGs in India and abroad are directed towards developing micro-enterprises largely in the non-farm sector (except in BAAC) while PACS extend loans to members for mainly agricultural purposes[17]. Further, there is minimal involvement of any intermediary in the PACS while NGOs play an active role in the MF programme in India.

NABARD has already linked 17 co-operatives with the SHGs under the MF programme (See Annex Tables). In one state viz. Andhra Pradesh, the government has introduced the bill for enactment of the "Andhra Pradesh Mutually Aided Co-operative Societies Act, 1995" and many more states are working on similar lines. Further, a few states have initiated legislative measures enabling co-operatives banks to provide MF to SHGs. These measures allow for voluntary formation of co-operative

16 Another reason behind disinterest in lending to poor was their credit requirements were more for meeting consumption needs rather than spending on productive activities in which the bank was interested (see among others Kotaiah 2000, Srinivasan 2000 and Mosley 2000).

17 Though small and marginal framers are also considered as part of SHGs, it is not clear how much proportion of the MF is going towards micro agricultural activities.

societies as accountable, competitive and self reliant business enterprises based on thrift, self help and mutual aid and owned managed and controlled by members for their benefits (NABARD 1998a & 1999). The Task Force instituted has recommended intermediation of SHGs as a sub-system of the co-operatives for their revival and increased support to the poor.

These measures and suggestions for the cooperatives should be considered as welcoming steps as these will instill a spirit of togetherness and responsibility amongst the new and existing members of PACS for accomplishing larger benefits. Also, revival of PACS in one area may have a demonstration effect in other areas as well. But an important issue to explore is whether all the existing members of PACS will be able to follow new working strategy. Also, we may note from the SHGs MF experience that revival of PACS and their financial viability is possible only if strong and motivated leaders head them. And, these people also run PACS on the principles of democratic management with minimal interference by the state in their day to day functioning. This would mean changing the whole structure of the existing co-operative societies on similar lines as followed under the SHGs linkage programme. This appears to be an arduous job.

The progress may not be fast because of inherent limitations within the system. As is clear from Indonesian BUD experience, which was heavily dominated by the state like Indian RFIs, major liberalization measures will have to be introduced (Kohli 1999, Srivastava 2000, Rao 2000, Malhotra and Chauhan 2000, Srinivasan 2000, Nanda 2000). In brief, greater autonomy to RFIs to set interest rates, re-capitalization by the states, simplification of loan procedures, incentives schemes to borrowers and staff, appropriate time to bank staff to adjust to the new environment and get benefits from de-regulation, are some of the measures, which are required to be introduced. Further, the saving and credit mobilization cycle being practiced under SHGs programme will have to be re-designed because the progressive lending system followed under SHGs may not work smoothly due to seasonal nature of credit demand for carrying out agricultural operations by all the members. The alterations in the system are also a pre-requisite in view of long term and large size investment loan requirements, accrual of income to the farmers after the end of crop production cycle and risks associated with natural factors, such as rainfall and droughts. For better financial performance, Mosley and Hulme (1998) and Mosley (2000) from a study on agricultural MF schemes and experience from Thailand Bank for Agriculture and Agricultural Co-operatives (BAAC), discover that on an average, repayment rates are same under group lending and individual lending. It is the loan supervision

that constitutes the most important factor to be correlated to bank's performance, with atleast monthly on-farm loan collections, even if income is bunched. Other useful measures are availability of insurance, provision of emergency consumption loans and flexibility in loan repayment.

In sum, it may be argued that the programme is not targeted to agricultural finance. It is addressed to fulfill credit demands of poor people for non-farm activities primarily. No matter cooperatives are involved in forming SHGs and there is deregulation of interest rates, it will take a long time for all the RFIs in each state to re-vitalize themselves in this direction[18]. The revival and success of agricultural RFIs to extend agricultural loans on the principles of MF programme will ultimately depend upon a large number of factors. The major being motivation of staff to have banking culture, provision of resources by state/government to RFIs during their initial stages and freedom from politicisation. Needless to say that the design, application of group lending and performance of the RFIs will differ as per the social and political context of programme implementation and flexibility given to RFIs in making desired modifications. Before delving into these, several of the issues like size of group formation by the RFIs, response of the existing members, cost of group lending, time of loan requirements for farm operations and loan repayments, loan delivery mechanism and non-financial services, extent of officialisation and government intervention etc., deserve to be empirically researched upon and experimented.

## IV. Towards New Directions in Rural Agricultural Finance:

As analyzed above, the MF programme of NABARD is progressing in forming SHGs, extending loans, reducing transaction costs substantially and in some cases creating linkages in the market for efficient marketing of products produced by the members. It is possible to extend MF programme through Bank-SHG programme to the agricultural activities provided RFIs are geared up to form farmers' SHGs in different socio-economic environments, engage staff in timely supervision and collection of loans. Also, revival of cooperatives on similar lines of SHGs programme will entail change in its overall functioning, which will take ample time.

The legitimate question, therefore is what could be the appropriate approach and the required policy framework through which PACS, CBs and RRBs can achieve their goals with or without following the self-help

18 Of the total 150 financial institutions participated in the SHG programme by March 1998, only 3 percent (17) were Co-operatives and the loan disbursed by them is also comparatively lower than the loan extended by CBs and RRBs.

groups' route? This is important to analyze because agricultural sector generates highest demand for formal credit in the rural areas. And, credit for non-farm activities as envisaged from the SHGs programme constituted less than 0.3% of the total loan outstandings in agriculture by 1998. The following sections aim to address this issue by suggesting two approaches/models. While the first approach seeks involvement of non-banking financial institutions and other agencies in the agricultural financing, the second introduces a cluster approach that would take rural agricultural economy on a higher growth path.

*IV.1 Rejuvenation of RFIs through NBFIs and Other Agencies*

To recall, the two most important factors behind high default in Indian agriculture (analysed in section II) were identified to be high transaction costs and inadequate income generation due to absence of forward and backward linkages in the rural markets. While the first problem can be resolved though the ongoing initiatives like simplification loan procedures, Local Area Bank Scheme, Kisan Credit Cards etc., the second issue viz. income generation needs to be visualized from a wider perspective as highlighted below.

Over the years there has been a vast expansion and commercialization of agriculture activities within the rural areas. Along with crop production, the farmers are diversifying to other activities like poultry, milk, cash crops and other non-farm activities. The banking procedures often do not fulfill the working capital needs of many activities. Further, in most of the cases, there is interlocking of credit needs and output produced by the farmers which refrain them to approach RFIs for credit. For example, farmers gain access to credit indirectly on deferred payments basis when they purchase agricultural inputs like fertilizers and pesticides. Further, the intermediaries (commission agents) who buy output extend advances to farmers before the crop is harvested. These transactions are done informally through some lease, hire-purchase etc. (Reddy 1999).

Two important points emerge from this discussion: (a) the informal finance, although less significant than before, continues to hold significant importance in the rural areas for seasonal agricultural production loans as well as operation of other market linkages. (b) It is beyond the scope of the rural financial institutions to facilitate such transactions. It is, therefore, suggested that along with MF programme, banks should initiate bigger efforts to inject credit into the agriculture sector on sustainable basis as proposed below.

Of late, new types of financial institutions, also called Non-Banking Financial Institutions (NBFIs) have emerged independently and provide loans for transactions on account of buying and selling of agricultural inputs and outputs. Nearly 100 such micro finance agencies, like RDO in Manipur, SHARE and BASIX in Andhra Pradesh, NARINIDHI in Bihar, ASA in Tamil Nadu, and CASHPOR Financial and Technical Services Pvt. Ltd. (CFTS) in Eastern Uttar Pradesh are in operation. These institutions provide financial services to poor people for carrying out both farm and non-farm activities in the rural areas[19]. The functions and activities of the NBFIs, like BASIX and SHARE are diverse and include forming tie-ups with SHGs to input suppliers and private companies for marketing of products produced. The interest rates charged by these agencies vary between 15 to 21 percent (See Kotaiah 1999, Mahajan 2000, Kumar 2000, Vasimalai 2000 for details). The lending rate is almost same or perhaps lower than the interest rates charged under Bank-SHGs linkage programme. Recently, NABARD has started providing support to select NGOs who are following Grameen type models and others with slight modifications.

One model of institutional change in agricultural financing could be to use the expertise and cost effective ways of the NBFIs to extend credit to rural people. Along with NBFIs, other informal agencies such as grain dealers, seed and fertilizer dealers, tractor dealers, and output dealers (artheyas), moneylenders etc. whom the farmers approach for various transactions can be contacted. This is because, all that a farmer needs is timely credit for diversified activities with minimum hurdles. He/she would prefer to take the easiest route and wouldn't mind paying a higher rate of interest even if the RFIs offer subsidized rates of interest. Since these agencies are found in every corner of India and farmers cannot avoid interactions with them, banks can think of streamlining them into their lending business. NABARD could upgrade their infrastructure a little bit, bring them within the fold of minimum accountability, refinance their agricultural loans say at 13%, and give them a free hand to charge interest rates within a wide band say upto 20% (as they are already charging above these rates).

Presently, the banks not fulfilling their quota of agricultural credit (18% of net bank credit) are supposed to deposit a part of that unfulfilled amount with NABARD at 12% interest rate. Banks are finding this as a convenient way to escape their commitments to rural credit. This rate should be reduced to 10% and the amount deposited with NABARD

19 These broadly comprise small and marginal farmers, landless agricultural and non-agricultural labourers, artisans and craftsmen, individuals engaged in small business like vending, hawking and individuals below poverty line having annual family income below Rs. 11,000.

could be made available to NBFIs and other relevant bodies, along with state governments who undertake irrigation, watersheds, roads and other rural development schemes (Gulati, 1999).

The approach has a potential to reach large mass of rural population in most cost-effective way without even forming SHGs. By pumping in large sums, it is probable that NABARD will create a competition within these NBFIs and this can gradually bring down interest rates in rural areas while retaining high rates of recovery. Overtime this could help in gradually reducing concession on interest rates while increasing the availability of credit. In some cases, formal financial institutions have already started extending finance to NBFIs as part of the MF programme for the poor people. So far, a suitable policy on lending to these NBFIs has not been evolved for long term financial linkages. Yet, a strong potential is visible through their activities (Kotaiah 1999) even though NBFIs are, (a) in their evolutionary stage, (b) driven by NGOs, (c) operational with varied competence, (d) based on forming SHGs and often face constraints, and (e) dependent on outside agencies for financial support. It is suggested that like SHGs programme, NABARD should also initiate lending through NBFIs and other agencies on pilot basis in select states.

To ensure that these NBFIs have high recovery rates, one change in law would be required. And this change in law can also go a long way in improving the recovery of loans in case of RFIs. At present, in case of default by a borrower, RFIs have to go through the courts to recover their loans despite having collateral against the loan. The execution of law through courts in this country is very slow, and in fact courts have failed to deliver. The change that is required in law is that the lender is empowered to seize/attach the collateral , if the borrower defaults. In case the defaulter fails to pay the loan for more than a year after the due date, the lender (RFIs or NBFIs) should have an automatic right to auction the collateral and recover the dues. This change in law alone can improve the loan recovery significantly.

*IV.2 Cluster Approach in Agricultural Financing:*

The other proposed model is based on a cluster approach whereby a new institutional credit structure is set up in the farm sector. Utilizing national and international experience on micro finance through formation of group lending and the growing significance of NBFIs, a slightly modified strategy on similar pattern can be evolved for the agriculture sector. The strategy may or may not be based on the formation of SHGs. The approach takes into account the dynamics of rural economy in a much wider context

than envisaged in Model I. This cluster approach would place NGOs or any other agency, such as agriculture input dealers or may be NBFIs, at the center. And that agency would first identify the business opportunity of the activity under consideration. It would identify the various actors in that chain , say from input supplies to super markets for the final product. The idea is to study the business activity from A to Z, identify the bottlenecks or missing links in the chain, and then fund the entire activity as a cluster. The key players in the chain could be seed dealers at the initial stages of agricultural operations to private companies for marketing the produce at the final stages. All actors in this chain could be contacted through this coordinating agency, their requirements of credit and corresponding risks identified, and then through establishment of forward and backward linkages in the farm economy, large doses of credit could be made available to the various participants of the cluster for their designated role. The main idea is to mitigate the risks of different players in the business chain so that that business takes off. This approach, unlike giving uncoordinated credit to some farmers, has better chance to succeed as it would raise farmers incomes, and therefore, their capacity to pay back the loans. Further, unlike MF, the scale of loan here would be much more, and has the capacity to unleash a revolution by linking input dealers, farmers, traders, processors, super markets, etc. in one chain. There is a possibility of having a "big bang" through this cluster approach.

It is heartening to note that some private sector Indian and foreign banks, like the ICICI and Rabo banks, have been thinking to try out this approach for their rural lending operations. It won't be out of place to say that NABARD should encourage such experiments by directly participating or refinancing such cluster approach rural lending for agri-business, linking farmer from input dealers to super markets.

## V. Conclusions:

The study is focused on three issues: first, what is the magnitude of bad debts or defaults in Indian agriculture; second, what are the major factors behind mounting defaults; and third, the policy and institutional measures that have been taken or proposed to be taken to reduce defaults and overall revitalization of RFI. At the outset, the study examines in detail the position of RFIs with respect to deposits, loans outstanding, overdues and loan recovery of the RFIs viz. regional rural banks, commercial banks and cooperatives at the all India level and across the states. It is revealed that though the RFIs are progressing in terms of loan disbursements, they are plagued with high levels of non-performing assets (NPAs) or

overdues. This has resulted into high incidence of defaults, which may be written off by the banks. The magnitude of defaults or bad debts in Indian agriculture is, therefore, estimated for each of the financial institution at the all India level and across states. The result indicates that bad debt as percentage of loans outstanding increased from 3.58 in 1980 to 4.2 in 1992 and declined thereafter. Natural calamities, inadequate income generation, government policy of lending at subsidized rate of interest and waving of loans on many occasions, high transaction costs, complicated lending and borrowing procedures and provisioning of NPAs are some of the major factors behind a high growth of overdues/ NPAs of rural financial institutions. Consequent upon these, the RFIs are confronted with poor resource base along with other inherent limitations like limited reach, inequality in distribution of loans and uneven regional spread.

Of late, several Committees and Task Forces on rural credit have recommended streamlining of policy and institutional changes for reducing overdues/NPAs and revitalizing RFIs. The measures undertaken particularly after the financial sector reforms set in 1991, include re-capitalization of RRBs, deregulation of interest rates and other measures which ensure greater autonomy to the RFIs. To some extent, these measures have helped commercial banks and regional rural banks in reviving their position. The progress on account of 'Kisan Credit Cards' is also significant. Efforts are on to revive cooperatives by following a 'member driven' approach, greater autonomy in the decision taking process and giving incentives to bank staff and borrowers for speedy recovery and timely repayment of the loans. Apart from these measures, lending through Self-help groups and NGOs under the micro finance programme is also initiated as one of the innovative steps to make the rural finance accessible to the masses and become viable, atleast in the long run. The programme is still in its pilot phase and in-house studies done reveal a notable progress in the linkage programme in terms of lower transaction costs, acceleration in the formation of SHGs, savings contribution by the members, favourable impact on social and economic status of SHGs members. As a result, many states have initiated legislative measures to introduce MF within the main lending business of RFIs.

But how fast the programme can be replicated within and across states and whether it can be extended to agricultural financing by the RFIs, particularly PACS, is still a question mark. The study finds that since these issues have not been evaluated and researched upon in a comprehensive way, nothing conclusive can be said about the relative success of the RFIs in this regard. To provide answer, four prominent success stories of Asia are reviewed and compared with Indian SHG

programme. It is observed that though there is a great potential in the MF programme in India, but its fast replication appears to be a challenging task. As visualized from cross country experience, the success will depend on the collective action on the part of government, bank and NGOs involved, incentives given to staff members and borrower for timely loan recovery and repayment, third party incentives and sanctions for RFIs for poor recovery performance, no government interference.

The replication of the programme to agricultural financing is considered important in the wider context of similar principles of group lending being followed under SHGs and cooperatives, commercialization and diversification of agricultural activities and inability of RFIs to cater to farmers demands, existence of informal finance and so on. It is revealed that extension of SHGs programme to agricultural financing by PACS or RRBs would require a change in their overall structure and functioning. Re-vitalization of PACS on similar lines with micro finance institutions can be a strenuous task and the whole process of experimentation and research work, and then, adoption of the model by the banks would take a longer time.

As an alternative to MF programme, we have proposed two models as part of the overall institutional reforms for agriculture sector. The first model of agricultural finance entails involvement of non-banking financial institutions such as BASIX and SHARE, input suppliers, output dealers, traders and moneylenders. The second model envisages a 'super market' for the farmers whereby all the key players in the agricultural sector will be identified and are brought in at one place for easy and timely transactions. The institutional structure of these models is proposed to be autonomous and will be promoted and financed initially by NABARD including formal financial institutions. To start with, a pilot project on trial basis can be launched in one select region and a select NGOs or NBFIs can be approached to take a lead in initiating and operating the model.

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# ANNEXURE I

## Characteristics and Evaluation of Four Successful Asian RFIs

1. Grameen Bank of Bangladesh (GB)

Grameen Bank started as an experimental project by Prof. Muhammad Yunus in 1976. This was converted into a specialized financial institution for the rural poor in 1983 by the ordinance of the government. GB is now an independent bank. 75 per cent of the shares are owned by the borrowers and the rest 25 per cent by the government. The main aim of the grameen Bank project was to introduce and institutionalize a non-traditional banking system in rural areas which would provide facilities under special terms and conditions at the commercial rate. GB loans are targeted towards the lowest strata of society such that those who own less than 0.5 acre of land or assets worth less than one acre of land are eligible for these loans. Loans are provided primarily for the undertaking of productive activities outside the crop sector and loans are issued without collateral. GB has identified poor women as one of its target groups. Women account for more than 91 per cent of all members. The major sources of funds for GB are the central bank, loans and grants from donors and deposits contributed by members to the group fund and the emergency fund. Each branch covers an area of 15 to 20 villages and the branch staff must live in the villages in which they work. Borrowers are organized informally into parallel units. A self-help group of five borrowers elect a chairperson and a secretary. On average, six groups form a centre, sometimes with several centres in a village. The group chairpersons elect a centre chief. Weekly meetings are held between the centre members and the branch workers to discuss loan applications, disbursements, and repayment schedules. The bank worker processes the application and recommends it for loan to the higher authorities. Collateral is not required but the pressure of SHG on individual members provides loan security.

Market interest rates, as prevailing in the formal sector, are charged. Also the objects purchased with the loan remain the property of the bank until the loan is repaid. GB members are required to open a saving account with the bank and deposit a minimum fixed amount in this account weekly. Also, 5 per cent of the amount loaned is kept by the bank as savings in an account owned by the borrower's group. Close monitoring of the loans is accomplished by the groups themselves and by the bank workers. GB has a high collection rate of 98 per cent. However, the level of subsidy dependence remains high (around 100 percent).

## 2. Bank for Agriculture and Agricultural Credit (BAAC) in Thailand

BAAC was established in 1966 as a government-owned bank to provide assistance to agricultural producers, either directly or through cooperatives and farmers cooperatives. The loans are provided on the basis of regulations which specify the type of borrowers, purpose of loans, repayment periods and interest rates, etc.The policies of BAAC are controlled largely by the government through an eleven member Board of Directors. In addition to its head office in Bangkok, BAAC has 71 branches, 23 sub branches and 584 field units all over the 73 provinces in the country. The BAAC is free to establish its own staffing policies. The loans are sanctioned and disbursed by the head office but the staff members regularly visit self-help groups that supply the joint liability to individual loans. It offers short working capital credit, long term loans and a credit-in-kind programme. Short term credit makes up more than 70% of the loan portfolio. These loans are provided for seasonal production requirements (60% is for rice) and in the form of storage loans for farmers unwilling to sell their products in a seasonally depressed market. Medium and long term loans are mainly provided for the purchase of farm machinery and equipment, draught animals, tree planting crops and land development. Medium term credit accounts for about 5% of the total portfolio, while long term loans add up to 25% and are the fastest growing segment of BAAC's activities. BAAC began an in-kind credit programme in 1980 as a means of providing farmer with quality inputs at reasonable prices, at the same time providing competition to local private sector suppliers. The principal inputs financed are fertilizer and agrochemicals (50% of the total), with lending increasing at an annual rate of 44% from 1980-81 to 1986-87. Other inputs include, machinery and equipment, tools breeding stock and agricultural services. Over the past 10 years, BAAC's gross income increased at an average annual rate of 11.5%, from B 1.5 billion in 1979 to about B 4.5 billion in 1988. The cost of funds during the same period rose from 865 million (58% of gross income) to 2.34 billion (59% of the gross income). BAAC's funds come from 4 main sources. Deposits from commercial banks provide 36% of the funds, as part of the mandated lending system in Thailand. Deposits from the general public provided 29% in 1988, and this source of funds is the fastest growing share, increasing at an annual rate of 19% per annum. BAAC also used funds supplied by foreign sources, amounting to Baht 7 billion (16% of the total). The OECF and IBRD were the most important suppliers of funds (45% and 42% respectively), with IFAD, ADB, USAID and KFW providing much smaller amounts. The fourth source of funds was the Bank of Thailand, providing subsidies in the form of grants (B 957 million in 1988) and preferential interest rates

for special programmes. Government support became less important over the period 1983 to 1988, dropping from 13% to only 7.5% of the BAAC's total funds. Shareholders' Equity has risen from B 2.4 billion in 1983 to B 3.2 billion in 1988, a 5.8% annual increase. However, the relative importance of equity as a source of funds declined from 10.5% in 1983 to 8.0% in 1988. Operating costs appear to be relatively stable as a percentage of total loan outstanding, in the range of 4.5% to 5.0% from 1983 to 1988. Compared to similar institutions in other countries, BAACs operating costs are markedly low.

To sum up, BAAC is a well performing rural financial institution. It has controlled costs while continually expanding the scale of operations, reaching more than 2.6 million clients and managing $ 1.1 billion in outstanding loans. In 1988, BAAC has also set up sophisticated management information systems for loan arrears and losses that provide an accurate reflection of the situation and allow for analysis of the quality of the outstanding loan portfolio. Based on the newly developed Subsidy Dependence Index (SDI), BAAC's performance can be rated as having a low level of subsidy dependence. While this was about 28% in 1986, it had dropped to 23% just 2 years later.

### 3. Badan Kredit Kecamatan (BKK) in Indonesia

BKK was originally established in 1970 at the initiative of the Governor of Central Java. It is owned by the Provincial Government of Central Java. The Governor of Central Java is the nominal head of the BKK.Financial supervision is the responsibility of the Central Java Regional Development Bank, BPD (Bank Pembangunan Daerah), which also provides technical assistance. The BKK is a large-scale, efficient , profitable programme, whose motto is "fast, cheap and productive credit". BKK lending procedures are designed to be simple, since the majority of the clients have very low incomes, and are often illiterate. It is a "mobile banking " system, providing standardized financial services at the village level. Lending and loan collections are often conducted on market days, to lower transaction costs to the clients and to the BKK's staff. The initial loan size cannot exceed Rp 50,000 (dollar equivalent of $28). Savings have played an increasingly important role as a source of funds for BKK. While obligatory savings backed 16% to 20% of the outstanding loan portfolio from 1986 to 1989, BKK has recently decided to introduce new savings instruments that offer market-based returns and greater accessibility in the near future. Due to the introduction of a voluntary savings instrument in 1988, which contributed 21.5% of the total savings mobilized by 1989, voluntary savings jumped to 5% of the outstanding

loan portfolio in 1989. BKK offers a bonus to its staff based on the level of profits generated by the individual units, a strong incentive for the loan officers to expand the client base and maintain high collection rates. Despite significant "old" non-performing loans, BKK's current loan collection record has been satisfactory, thanks in large part to the peer pressure system which incorporates the village head into the client selection process. Based on unaudited financial statements, BKK's return on average annual equity for 1989 is a impressive 13%. Financial expenses as a percentage of average annual assets have been extremely low in recent years (5.2% in 1989), compared to 9.5% in 1989 for another large Indonesian programme, BRI-unit Desa. In contrast, total administrative expenses as a percentage of average annual assets reached 12.7% in 1989(while BRI-Unit Desa's ratio was 10.3% for the same period). To sum up, BKK has been successful in terms of the outreach achieved and the relatively inexpensive means it has developed to reach low income clients. Transaction costs have been minimized by "mobile banking" techniques, while asymmetric information risks are lowered by the incorporation of the village head in the borrower selection process. The SDI for BKK shows an improvement over the 1987-89 period, decreasing from 24% in 1987 to 20% in 1989. BKK should emphasize on-time repayment of intermediate installment payments as a way of overcoming lingering subsidy dependence, rather than an increase in the lending rate that might lower the volume of loans over time.

4. BRI/ unit Desa Programme (BUD) in Indonesia

The Kredit Umum Pedesaan (KUPEDES), or the General Rural Credit Programme (denoted as BUD) was introduced in early 1984 by Bank Rakyat Indonesia (BRI). BUD is operated at the village level in the Unit Desas, small rural branches established in the early 1970s to provide credit to the rice farmers. BUD was established to encourage the Unit Desas to become well-organized financially viable network, mobilizing a sufficient amount of savings to back future loan portfolio growth. Market based interest rates were applied, the assumption being that for small borrowers timely access to credit is more important than the cost of the loan. The Unit Desas have gradually become full service banks, providing a variety of financial services primarily to rural clients throughout Indonesia. BUD is an integral part of the BRI unit Desa system. Equity consists of the proceed of the Government's grant for the Kredit Mini Programme, which were reallocated to BUD in 1984. In addition, the Bank of Indonesia provided a liquidity credit of Rp 43 billion (about $25 million) for Kredit Midi and an additional Rp 100 billion ($57 million) to initiate the BUD Program. When BUD was initiated, the Unit Desas

adjusted their internal financial management systems to permit deposits in excess of loan demand and an accurate allocation of overhead costs for their various activities. Funds loaned to the Unit Desas are subject to an interest rate no less than the rate paid by the Unit Desas on three-month time deposits. Unit Desas with surplus savings can deposit these funds with their branches and receive the same rate. The transfer price is periodically adjusted by BRI management (it was set at 16% for 1989, rising to 22.5% for 1991). This mechanism has effectively promoted widespread savings mobilization, which reached 113% of the value of the loan portfolio by 1989 year end. At the village level, mechanisms are in place to ensure the appropriate allocation of credit. Local borrowers participate by attending the loan interview, and the village head is assisting in screening borrowers by issuing a certificate of ownership or tenancy. Peer pressure is often used as substitute for collateral. Otherwise land certificates are taken to be collateral. Persuasion through village heads and government are used to avoid defaulters. Flexibility in loan repayment is also given. The penalty for poor performance by the borrowers is immediate, since no additional borrowing is permitted. The Unit Desa staff maintain good working relations with the village head, even though the latter's participation in the process may be seen as informal. Since 1984, the Unit Desa system has registered impressive growth. Between 1984 and 1989, total assets increased by 700%, from Rp 0.18 trillion to Rp 1.29 trillion (or more than $700 million). The outstanding BUD portfolio has risen from Rp 110.7 million to Rp 845.6 million. The most striking growth has been that of savings deposit, jumping from Rp 40.2 billion in late 1984 to Rp 926.6 billion ($509s million) by the end of 1989 (14% of BRI's total deposits). After incurring initial start-up losses in 1984 and 1985, the Unit Desa system has generated steadily increasing annual net profit, totaling Rp 9.8 billion in 1986 and Rp 36.9 billion in 1989 (equivalent to $20.3 million). This performance has contributed significantly to BRI's overall profitability. In 1988 and 1989, the Unit Desas accounted for 30% of BRI's total net income. Key factors which have enabled the Unit Desas to perform profitably include (I) an adequate lending spread; (II) a high quality portfolio; and (III) firm control of personnel and administrative expenses. The quality of the portfolio has been good, with only 5.5% of the outstanding loan portfolio in arrears in Dec. 1989. Much of this success is due to careful client screening and intensive follow-up by the Unit Desa staff. The savings record has also been impressive, with 6,262,000 savings accounts with an average deposits size of only Rp. 150,000 ($85) in 1989. This is due, in large part, to the existence of several savings instruments, including demand deposits, time deposits and the enormously popular passbook savings plan. A study undertaken by BRI concludes that BUD programme has had a significant impact in poverty alleviation and in facilitating the access

of women to credit. Income and loan size levels are growing because repeat borrowers have been economically successful. In addition, the use of loans with maturities of more than 12 months has increased significantly over the past 3 years. With longer loan terms, borrowers are able to borrow larger amounts and still pay the same monthly amount to which they have become accustomed. Finally, the SDI reveals that BUD was subsidy independent in 1989, and is apparently improving its performance. The 3% SDI for 1987 had reached a (-8%) level by 1989, indicating that BUD had become finally self-sustainable.

*Functioning and Performance of Five RFIs in Asia: A Comparative Analysis*

There are four prominent success stories in three Asian developing countries. These are the Bank for Agriculture and Agricultural Credits (BAAC) in Thailand, the Badan Kredit Kacamatan (BKK) and the Bank Rakayat Indonesia Unit Desa (BRI-UD) in Indonesia, and Grameen Bank (GB) in Bangladesh. Of late, SHG-Bank programme in India has also assumed importance and is being promoted on a large scale. The first four RFIs have been existing for long and have made significant progress in terms of their outreach and financial self sustainability. The outreach is measured by (i) the value and number of loans extended i.e. RFIs outstanding loan portfolio, (ii) the amount of saving and the average value of savings accounts, (iii) the variety of financial services provided, (iv) the number of branches, (v) percentage of total rural population served, (vi) the annual growth of RFI assets over recent years in real terms and (vii) women's participation. Financial self-sustainability is considered to be achieved when the return on equity, net of any subsidy received, equals or exceeds the opportunity cost of the equity funds (Yaron, 1992). Yaron has provided a methodology to compute Subsidy Dependence Index (SDI) to measure explicit and implicit subsidies (including the imputed cost of the RFIs net worth) as a percentage of the RFIs loan portfolio times the average onlending interest rate. It yields the percentage increase that is required in the RFI average on-lending interest rate in a given year to compensate for the elimination of subsidies (i.e. to equate the return on equity, net of any subsidy received, with the opportunity cost of funds). A SDI of zero means that an RFI is fully self sustainable. A SDI of 100 percent indicates that a doubling of the RFIs average on-lending rate is required if subsidies are to be eliminated. In general, the financial policies, delivery mechanism and advanced management information systems are found to have contributed to the success of RFIs in countries other than India. A detailed evaluation of five RFIs is presented in sections I.1 and I.2 and their comparative analysis is given below. The indicators of outreach and self sustainability are briefly presented in Table 5 in the main text.

*Economic Status of the Clientele of the RFIs: Target Groups*

The five RFIs reviewed have differed in their target clientele, in their years of experience in providing financial services, and in their objectives. Women have accounted for 91 percent of GB's borrowers, 85 percent of SHG-Bank's borrowers and 60 percent of the BKK's clients; in contrast women made up only 25 percent of the BUD's beneficiaries. (No data are available on women's share of the BAAC's lending). Of all the RFIs, only BAAC has devoted funds exclusively to agricultural producers; the other three have financed any rural income-generating activity, with a concentration on non-farm operations with former having very low share due to inclusion of only small and marginal farmers in the SHGs. In India, funds are devoted to both farm and non-farm operations, but the share of the former in total loans advanced is insignificant. Among the five institutions, the GB's and SHG-Bank's performance in banking is outstanding in reaching a distinct target group of very poor people. The difference in economic status of the clientele served is also noteworthy; the BUD and BAAC have had an average outstanding loan size of about $300 and $500, respectively, whereas outstanding loans for the BKK and GB have averaged less than $100. In India, the average amount of outstanding per SHG for one RRBs viz. Cauvery Grameen Bank was Rs. 3523 ($ 78.3) in 1996; Rs. 10761 ($ 239.13) in 1997; and Rs. 24561 ($ 545.8) in 1998 (Rao 2000).

*Financial Policies Adopted by RFIs*

All the five RFIs have charged positive real interest rates on their loans with nominal rates varying between 11 to 13 percent a year. For the BUD and the BKK, real rates have been greater than 15 percent annually, and for the BAAC and the GB, real rates have been less than 6 per cent. Despite the positive and generally high on-lending rates used, the rates were still significantly below those prevailing in the informal money markets. In India, the SHGs are free to decide the interest rates to be charged to its members as prevailing in their area. Normally, the nominal rates vary between 24 to 36 percent per annum. However, the interest rate structure stipulated by the NABARD at different levels is: NABARD to Banks (Refinance) - 6.5 %; Banks to SHG -12%; Banks to NGOs-10.5%, NGOs to SHGs - 12%.

All the RFIs have provided savings' services with varying degrees of success when the amounts were measured against the value of their loan portfolio. The four RFIs started as supply-led credit institutions whose primary function was to deliver credit rather than to meet the demand for deposit and savings services. Only later did the mobilization of savings

become significant. Deposit rates have been positive for BUD and BAAC and lower than the lending rates for BKK and GB. Under the SHG-Bank programme in India, the SHGs were allowed to open savings bank account even if the SHGs have not availed of credit from the banks. The approach under the linkage programme was to provide small loans for meeting people's consumption needs. Once the SHGs became confident in generating surplus, the members were then encouraged to undertake loans for production purposes as well. In general, 'progressive lending' is followed where the members start with small loan amount and progress to larger amounts, provided the repayment rates on smaller loans are satisfactory.

*Incentives/Disincentives*

The RFIs have used incentives to ensure financial discipline and to build a positive relationship between the lender and borrowers. The two Indonesian RFIs have offered a monthly interest rebate on the original loan value for timely repayments. The BAAC, by contrast, has preferred to impose a penalty rate of 3 per cent a year on arrears. The rigid pattern of frequent payment, buttressed by routine meetings of the group members in BAAC, GB and SHG-Bank are considered to be useful in achieving financial discipline and reducing administrative costs.

*Collateral Requirements*

Strict collateral requirements are found frequently incompatible with small scale loans to the poor. The BKK, SHG-Bank and the GB, characterized by very small average loan size, have extended loans without collateral; the BKK used character references exclusively; and the GB used joint liability mechanisms. The BAAC too has relied on joint liability for short-term loans, using a small homogeneous group that did not pose the free rider problem and where peer pressure could be used successfully. In the GB and SHG-Bank this is provided by the facts that members of the peer group are jointly liable for the repayment of loans, and they cannot gain access to credit until the debts of the group are discharged. At times the SHG-Bank treats collective savings of the groups deposited with the bank as substitute for collateral security. The loan provision is based on 1:1 or 1:2 ratio depending on the nature and type of loan.

*Role of Self-help Groups and Loan Rules*

The SHG-Bank, GB and BAAC have leaned heavily on self-help groups to promote and deliver loans out of their savings, thus generating substantial

savings in their transaction costs. BAAC's loan rules required a balloon repayment of principal and interest eleven months after loan disbursement. Prompt payment was a condition for a follow up loan one month later. By contrast, the standard three-month loan repayment procedure for BKK loans has been flexible and transparent making it easy for both the client and staff member to calculate the required funds for each weekly installment. The first ten installments covered the principal, eleventh was meant for obligatory savings and the final installment serving as the interest payment.

*Mobile Banking*

Except Bank-SHG in India, all the four RFIs have used components of mobile banking as an innovative way to provide low-cost savings and lending services to very poor clients. This practice has greatly reduced transaction costs for both the lenders and borrowers. In the Indian case, a few banks lending directly to the SHGs have engaged commission agents to cater services to members at their doorsteps.

*Staff Incentives and Training*

The five RFIs have instituted regimes that reward staff members or agents for better performance in assessing, extending, and collecting loans and in promoting and servicing savings. BKK distributes 10 percent of branch's profit to its staff and BUD provides an yearly bonus of upto one month's salary and grants special awards for outstanding performance. GB has also similar schemes, while BAAC has based its promotion system on three quantifiable factors: execution of loans, loan collection and saving mobilization. An important aspect under all the RFIs including the SHG-Bank programme is provision of training and sensitization programmes of the bank officers/staff both at the field level and at the controlling office level.

*Economic Performance and Staff Responsibility*

Data indicate a significant level of outreach as measured by the volume of outstanding loans and savings, the number of loan accounts and saving deposits. All the five RFIs were able to disburse funds within two weeks of receiving an application, but they differed in the amount of responsibility for loan approval each assigned to the local manager.Comparing the workload of average staff member, the number of savers per staff member varied widely from 127 for the GB to 460 for BUD. Similarly the average outstanding loan portfolio managed per staff member varied significantly from $4900 for the GB to $131800 for the BAAC.

*Financial Self Sustainability*

The financial self sustainability has been measured byYaron (1992 and 1994) for all the RFIs except RFIs in India. Based on subsidy dependence index (SDI) as a measure of self sustainability, the results for four RFIs for the year 1987 and 1989 indicate that all the four institutions differ substantially in their level of dependence on subsidies. The BUD has a minimum SDI of 3 percent and (–)8 percent in these years indicating a low dependence in 1987 and an improvement in 1989. The GB's SDI is maximum at 180 percent and 130 percent in these two years thereby suggesting an increase in the on-lending interest rate from 13.3 percent to 37.2 percent a year or by 23.9 percentage points to compensate for full elimination of subsidies. In contrast, the estimated SDIs for BKK and BAAC were 24 and 28 percent in 1987 and 20 and 26 percent respectively in 1989. All the RFIs have shown improvement over a period of two years. In the Indian case, Mosley (2000) has estimated 133 percent SDI (averaged over 1988-92) for 13 institutions including regional rural banks.

(1) *No government intervention and sound financial policies*: Positive real rates on lending and deposits, saving services, flexible margins and security norms, interest rebates for timely repayment, gradual increase in borrowing eligibility upon timely loan repayment and a penalty interest rate on arrears etc. should be followed. Timely evaluation of RFIs in terms of outreach and self sustainability criterion should be done.

(2) *Sensitization of bank staff and NGOs regarding the programme*: Steps should be taken to internalize the SHGs linkage within the banking operations, create awareness among bankers regarding the functioning of SHGs in a particular area. Banks/NGOs should help members in identification of income earning activities, mobilization of credit for micro-enterprise activities, marketing and distribution of the products produced by the members

(3) *Obligatory savings of members and effective delivery mechanisms*: Saving of members should be tied up with lending and RFIs must ensure efficient and relatively low cost operations, sound selection of loan applicants and adequate loan collection. Regular training of field level officials and sensitization of the controlling and other senior officials of the banks to the advantages of SHG route should be promoted. There should be close monitoring of the progress at regular intervals.

(4) *Incentives to bank staff and provision of low cost services:* As visualized from the international experience, appropriate incentives to the staff involved in such programmes should be introduced. Also, mobile banking should be initiated to provide low cost savings and lending services to very poor clients. Field staff members can visit a different village each day of the week for collection and disbursement.

### *I.2 Comparison of Grameen Bank and Bank-SHGs Linkage Programme*

The approach and objective of the Grameen Bank (GB) in Bangladesh and SHG-Bank linkage programme in India are almost same with their target groups being the poor people in the rural areas. However, an analysis of the two approaches as done by NABARD (1995) indicates the following differences:

1. Under the SHG-Bank linkage programme in India, the group members take the decisions regarding savings and credit, whereas under the GB approach in Bangladesh, the individuals take the loans and the driving force is bank.

2. In the Indian context, savings precede credit extension, while credit comes first and then savings in the GB model.

3. In the SHGs approach, the structure of the group is the forcing function and in case of any opposition from vested interest, the larger membership of the group provides strength to tackle with the problems, while in the GB approach the group's role is more by way of influencing the member's behaviour and ensuring accountability.

4. Training of the group members under the SHGs model is imparted by the NGOs as well as banks and the same in the GB model, is given by the bank itself.

5. The SHGs approach makes use of pre-existing formal credit machinery subject to certain safeguards, while the GB mechanism virtually by-passes the formal credit machinery on ground of latter's inadequacy.

# ANNEX TABLES

**Annex Table 1: Deposits, Direct Loans Outstandings, Overdues and Loan Recovery for the Cooperatives, RRBs and CBs from 1980 to 1998, Rs. crore**

| Particulars/years | 1979-80 | 1980-81 | 1985-86 | 1986-87 | 1987-88 | 1988-89 | 1989-90 | 1991-92 | 1992-93 | 1993-94 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Deposits** | | | | | | | | | | |
| CBs | - | 37988 | 85404 | 102724 | 118045 | 140150 | - | - | - | - |
| RRBs | 252.8 | 336 | 1714 | 2306 | 2966 | 3159 | 4150 | 5867.8 | 6938.13 | 8826.51 |
| PACS | - | 291 | 653 | 742.43 | 910.33 | 1227 | 1284 | 1648 | 1863 | 2979 |
| LDBs | - | 20 | 30 | 33 | 38 | - | - | - | - | 111 |
| Total | - | 38635 | 87801 | 105805.43 | 121959.33 | 144536 | 5434 | 7515.8 | 8801.13 | 11916.51 |
| **Loan Outstanding** | | | | | | | | | | |
| CBs | 1900.68 | 2326.4 | 7997.84 | 9395.67 | 10891.31 | 13113.23 | 15313.29 | 17066.25 | 17748.01 | - |
| RRBs | 226.61 | 385.25 | 1747.27 | 2192.95 | 2760.91 | 2895.63 | 3503.78 | 4147.9 | 4565.1 | 5219.7 |
| PACS | 2373.79 | 2622 | 4419.85 | 4996.89 | 5748.94 | 6363.27 | 6696 | 7261.45 | 8472.29 | 9399.3 |
| LDBs | 1534.86 | 1697.08 | 2655.52 | 2877.96 | 3206.1 | 3429.28 | 3899.21 | 4732.41 | 5295.59 | 5916.25 |
| Total | 6035.94 | 7030.73 | 16820.48 | 19463.47 | 22607.26 | 25801.41 | 29412.28 | 33208.01 | 36080.99 | 20535.25 |
| **Overdues** | | | | | | | | | | |
| CBs | 562.83 | 727.02 | 1743.65 | 1969.63 | 2267.31 | 2568.38 | 3625.52 | 4280.1 | 4611.1 | - |
| RRBs | 41.47 | 68.11 | 437.08 | 569.72 | 702.65 | 815.33 | 1140.18 | 1437 | 1648.31 | 1850.3 |
| PACS | 1088.54 | 1086.39 | 1859.66 | 1994.64 | 2108.59 | 2373.8 | 2986.8 | 3107.47 | 3093.49 | 3160.78 |
| LDBs | 205.41 | 242.6 | 260.77 | 357.93 | 357.25 | 389.18 | 803.2 | 758.59 | 657.05 | 683.08 |
| Total | 1898.25 | 2124.12 | 4301.16 | 4891.92 | 5435.8 | 6146.69 | 8555.7 | 9583.16 | 10009.95 | 5694.16 |
| **%age of overdues to** | | | | | | | | | | |
| **Demand** | | | | | | | | | | |
| CBs | - | 47 | 43 | 43 | 43 | 43 | 51.16 | 45.85 | 44.1 | 42.33 |
| RRBs | - | 48 | 51 | - | - | - | - | 59.11 | 58.80 | 53.77 |
| PACS | - | 43 | 41 | 41 | 40 | 43 | - | - | - | - |
| LDBs | - | 46 | 45 | 48 | 50 | 56 | - | - | - | 43 |
| **%age of overdues to** | | | | | | | | | | |
| **Loan outstanding** | | | | | | | | | | |
| CBs | 29.61 | 31.25 | 21.80 | 20.96 | 20.82 | 19.59 | 23.68 | 25.08 | 25.98 | - |
| RRBs | 18.30 | 17.68 | 25.02 | 25.98 | 25.45 | 28.16 | 32.54 | 34.64 | 36.11 | 35.45 |
| PACS | 45.86 | 41.43 | 42.08 | 39.92 | 36.68 | 37.30 | 44.61 | 42.79 | 36.51 | 33.63 |
| LDBs | 13.38 | 14.30 | 9.82 | 12.44 | 11.14 | 11.35 | 20.60 | 16.03 | 12.41 | 11.55 |
| Total | 31.45 | 30.21 | 25.57 | 25.13 | 24.04 | 23.82 | 29.09 | 28.86 | 27.74 | 27.73 |

Source:

1. Report on Currency and Finance, Part II, RBI for RRBs figures
2. Statistical Statements Relating to Co-operative Movement in India, Part I, Credit Societies (NABARD) and Dossier on Cooperatives (NABARD) for PACs and LDBs figures
3. Special Returns of Indian Scheduled Commercial Banks (Unpublished), Ministry of Finance

CBs= Commercial Banks, RRBs = Regional Rural Banks, PACs= Primary Agricultural Credit Societies, LDBs= Land Development Banks (DCCB/SCARDB)

RRBs data relates to December end till 1989, September end from 1990-92 and to March end thereafter

PACS and LDBs figures relate to June end till 1995 and to March end thereafter

CBs figures are for June end

**Annex Table 1 : Contd.**

| Particulars/years | 1994-95 | 1995-96 | 1996-97 | 1997-98 | 1998-99 |
|---|---|---|---|---|---|
| **Deposits** | | | | | |
| CBs | - | - | - | - | - |
| RRBs | 11150.01 | 14187.9 | 18032.01 | 22189.23 | 27065.74 |
| PACS | 2928 | 4555.47 | 2322.53 | - | - |
| LDBs | 122 | 158 | 163 | 207 | 240 |
| Total | 14200.01 | 18901.37 | 20517.54 | 22396.23 | - |
| **Loan Outstanding** | | | | | |
| CBs | - | - | 25279.55 | 26903.01 | - |
| RRBs | 6258.2 | 7470.5 | 8668.9 | 9860.61 | 11355.84 |
| PACS | 9992.44 | 13609.1 | 10771.22 | 18175 | - |
| LDBs | 6816.38 | 6856.59 | 8015.88 | 9182 | 10442 |
| Total | 23067.02 | 27936.19 | 52735.55 | 64120.62 | - |
| **Overdues** | | | | | |
| CBs | - | - | 5378.81 | 5678.8 | - |
| RRBs | 1765.4 | 1979.5 | 2085.6 | - | - |
| PACS | 3605.32 | 5142.39 | 4125.38 | - | - |
| LDBs | 713.93 | 915.44 | 1024.92 | 1230.97 | - |
| Total | 6084.65 | 8037.33 | 12614.71 | 6909.77 | - |
| **%age of overdues to** | | | | | |
| **Demand** | | | | | |
| CBs | 40.55 | 38.01 | 36.69 | 33.88 | - |
| RRBs | 49.02 | 44.90 | 42.90 | 39.46 | - |
| PACS | 31.42 | 33.74 | 35.72 | 35 | - |
| LDBs | 38 | 39 | 39 | 40 | - |
| **%age of overdues to** | | | | | |
| **Loan outstanding** | | | | | |
| CBs | - | - | 21.28 | 21.11 | - |
| RRBs | 28.21 | 26.50 | 24.06 | - | - |
| PACS | 36.08 | 37.79 | 38.30 | - | - |
| LDBs | 10.47 | 13.35 | 12.79 | 13.43 | - |
| Total | 26.38 | 28.77 | 23.92 | 10.78 | - |

**Annex Table 1a: Average Annual Growth Rate of Loans Outstanding and Overdues in RFIs**

| Years/RFIs | PACS | LDBs | RRBs | CBs | Aggregate |
|---|---|---|---|---|---|
| **Loans Outstanding** | | | | | |
| Nominal average annual rate of growth | | | | | |
| 1980-98 | 13.30 | 10.51 | 24.21 | – | |
| 1980-93 | 10.63 | 10.01 | 27.11 | 19.61 | 14.91 |
| 1980-89 | 011.6 | 09.36 | 33.75 | 24.29 | 17.57 |
| 1990-98 | 15.01 | 11.66 | 14.68 | – | – |
| Real average annual rate of growth (1993-94 prices) | | | | | |
| 1980-98 | 04.19 | 01.59 | 14.23 | – | – |
| 1980-93 | 01.59 | 00.95 | 16.71 | 09.77 | 05.47 |
| 1980-89 | 03.11 | 01.03 | 23.53 | 14.85 | 08.64 |
| 1990-98 | 05.27 | 02.15 | 04.93 | – | – |
| **Overdues** | | | | | |
| Nominal average annual rate of growth | | | | | |
| 1980-98 | 09.58 | 13.11 | 27.72 | – | – |
| 1980-93 | 09.52 | 12.86 | 34.31 | 18.14 | 13.97 |
| 1980-89 | 09.16 | 08.62 | 40.77 | 18.58 | 14.00 |
| 1990-98 | 10.04 | 17.59 | 13.04 | – | – |
| Real average annual rate of growth (1993-94 prices) | | | | | |
| 1980-98 | 00.80 | 3.95 | 17.44 | – | – |
| 1980-93 | 00.59 | 3.50 | 23.32 | 8.35 | 4.59 |
| 1980-89 | 00.87 | 0.29 | 30.02 | 9.54 | 5.33 |
| 1990-98 | 00.73 | 7.61 | 3.30 | – | – |

GDP deflator obtained from NAS (2000) is used to convert series at constant prices.

| Annex Table-2: State Wise Position of Loans Outstanding in all the Rural Financial Institutions (RFIs) from 1980 to 1997, Rs. crore | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 |
| Andhara Pradesh | 724.10 | 836.81 | 984.87 | 1161.48 | 1404.21 | 1715.88 | 1915.84 | 2167.93 | 2527.43 | 2858.58 | 3161.76 |
| Assam | 15.98 | 18.99 | 29.09 | 33.63 | 50.09 | 66.97 | 96.14 | 125.26 | 155.00 | 185.39 | 260.76 |
| Bihar | 239.03 | 272.46 | 357.85 | 437.72 | 497.76 | 598.36 | 697.63 | 834.68 | 1093.08 | 1267.55 | 1567.37 |
| Gujarat | 425.07 | 449.47 | 562.66 | 599.26 | 665.39 | 794.55 | 940.83 | 1077.71 | 1364.79 | 1414.50 | 1587.52 |
| Haryana | 291.45 | 339.89 | 447.68 | 509.17 | 595.26 | 679.62 | 776.75 | 878.03 | 1006.60 | 1149.16 | 1298.31 |
| Himachal Pradesh | 24.63 | 28.04 | 78.28 | 48.88 | 58.08 | 77.91 | 78.57 | 99.94 | 117.47 | 129.74 | 139.63 |
| Jammu and Kashmir | 17.59 | 21.26 | 32.61 | 36.75 | 44.01 | 65.96 | 47.76 | 47.71 | 61.23 | 88.87 | 105.00 |
| Karnataka | 424.70 | 490.34 | 639.81 | 703.82 | 906.33 | 1148.53 | 1424.46 | 1668.94 | 1848.59 | 2142.95 | 2501.81 |
| Kerala | 344.71 | 442.38 | 537.57 | 623.54 | 770.40 | 951.85 | 1146.54 | 1356.52 | 1573.11 | 1719.54 | 2021.22 |
| Madhya Pradesh | 391.48 | 455.85 | 555.14 | 611.51 | 738.77 | 893.07 | 1112.99 | 1338.70 | 1578.93 | 1841.07 | 2126.73 |
| Maharashtra | 689.67 | 813.51 | 1023.18 | 1130.74 | 1354.08 | 1588.66 | 1807.84 | 2185.38 | 2545.92 | 3117.67 | 3590.72 |
| Orissa | 194.38 | 236.41 | 309.55 | 396.88 | 486.90 | 513.96 | 581.49 | 626.33 | 703.57 | 677.93 | 769.51 |
| Punjab | 348.90 | 488.86 | 610.80 | 723.41 | 955.00 | 968.74 | 1093.96 | 1284.85 | 1378.01 | 1605.43 | 1893.08 |
| Rajasthan | 280.64 | 351.38 | 457.15 | 558.25 | 640.02 | 726.14 | 850.83 | 976.94 | 1134.97 | 1279.08 | 1469.88 |
| Tamil Nadu | 587.66 | 564.89 | 765.73 | 854.06 | 1045.65 | 1235.63 | 1427.10 | 1586.77 | 1957.10 | 2280.98 | 2738.04 |
| Tripura | 7.71 | 12.35 | 19.59 | 23.79 | 27.33 | 34.40 | 43.50 | 53.18 | 71.42 | 93.48 | 109.09 |
| Uttar Pradesh | 763.26 | 900.17 | 1112.00 | 1277.08 | 1489.53 | 1697.27 | 1923.02 | 2181.63 | 2440.10 | 2766.61 | 2812.40 |
| West Bengal | 235.91 | 261.00 | 309.44 | 346.07 | 394.57 | 470.16 | 586.19 | 663.06 | 746.62 | 797.05 | 889.72 |
| Others | 29.09 | 46.67 | 79.70 | 101.25 | 136.87 | 211.58 | 269.38 | 309.82 | 303.25 | 385.75 | 369.66 |
| All India | 6035.94 | 7030.73 | 8912.42 | ####### | 12260.26 | 14439.40 | ####### | 19463.47 | 22607.26 | ####### | 29412.28 |
| Notes: Data on outstanding of commercial banks is missing from 1994 to 1996 | | | | | | | | | | | |
| In the case of long-term cooperatives, data from 1995 to 1998 relate to SCARDBs | | | | | | | | | | | |

Annex Table-2: Contd.

| | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|---|---|---|---|---|---|---|---|
| Andhara Pradesh | 6660.78 | 4436.86 | 4994.62 | 3110.66 | 3542.86 | 2750.83 | 4113.64 |
| Assam | 258.75 | 288.45 | 281.77 | 132.00 | 150.30 | 204.57 | 577.28 |
| Bihar | 1440.41 | 1643.94 | 1747.88 | 903.63 | 966.84 | 805.04 | 1906.08 |
| Gujarat | 1696.57 | 1933.45 | 2033.95 | 1250.91 | 1383.93 | 1529.43 | 2947.14 |
| Haryana | 1340.38 | 1533.63 | 1583.57 | 1086.41 | 1170.75 | 1660.27 | 2924.22 |
| Himachal Pradesh | 136.39 | 165.51 | 173.32 | 103.10 | 126.46 | 153.15 | 310.63 |
| Jammu and Kashmir | 82.19 | 74.05 | 68.83 | 60.34 | 66.80 | 72.26 | 165.48 |
| Karnataka | 2457.55 | 2610.05 | 2889.18 | 1583.46 | 1770.41 | 2182.55 | 4825.77 |
| Kerala | 2229.79 | 2517.93 | 2842.40 | 2517.31 | 2618.08 | 2874.84 | 2219.47 |
| Madhya Pradesh | 2339.92 | 1838.58 | 1810.26 | 761.65 | 857.07 | 2043.91 | 4073.98 |
| Maharashtra | 3592.03 | 3989.74 | 4060.22 | 2742.91 | 3235.57 | 2432.33 | 4896.82 |
| Orissa | 735.78 | 774.89 | 856.08 | 496.42 | 557.73 | 628.58 | 1385.76 |
| Punjab | 2034.31 | 2170.35 | 2261.13 | 1003.68 | 1211.66 | 1435.18 | 3145.73 |
| Rajasthan | 1093.59 | 1490.19 | 1661.44 | 872.95 | 1035.32 | 1170.08 | 2149.40 |
| Tamil Nadu | 2811.83 | 2897.86 | 3766.34 | 1513.16 | 1565.30 | 2883.17 | 7255.84 |
| Tripura | 97.22 | 106.61 | 123.36 | 100.00 | 111.05 | 100.67 | 142.00 |
| Uttar Pradesh | 3137.47 | 3446.90 | 3728.05 | 1927.22 | 2248.22 | 4124.66 | 7018.50 |
| West Bengal | 913.75 | 917.38 | 863.82 | 330.90 | 382.90 | 832.20 | 2090.17 |
| Others | 361.96 | 371.89 | 338.59 | 58.58 | 65.53 | 52.47 | 531.64 |
| All India | 33620.75 | 33208.01 | 36080.99 | 20535.25 | 23067.02 | 27936.19 | 52735.55 |

| Annex Table-3: State Wise Positon of Total Overdues from Direct Advances in all the Rural Financial Institutions from 1980 to 1997, Rs. crore | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 |
| Andhara Pradesh | 202.06 | 198.27 | 240.64 | 326.75 | 362.75 | 463.15 | 508.63 | 567.92 | 650.87 | 717.69 |
| Assam | 9.11 | 10.32 | 11.31 | 14.00 | 17.15 | 14.27 | 19.54 | 23.57 | 35.48 | 40.54 |
| Bihar | 91.10 | 74.18 | 109.50 | 135.97 | 148.18 | 183.04 | 177.50 | 155.94 | 283.68 | 323.42 |
| Gujarat | 180.23 | 207.40 | 173.26 | 194.94 | 204.20 | 242.92 | 253.70 | 293.29 | 305.62 | 351.84 |
| Haryana | 49.05 | 72.45 | 88.75 | 107.90 | 142.27 | 159.94 | 186.26 | 228.90 | 263.36 | 300.09 |
| Himachal Pradesh | 7.65 | 9.56 | 10.57 | 11.38 | 12.75 | 14.30 | 19.42 | 28.85 | 30.95 | 35.36 |
| Jammu and Kashmir | 5.71 | 8.62 | 9.37 | 9.89 | 14.07 | 13.80 | 12.43 | 14.10 | 23.22 | 15.76 |
| Karnataka | 161.52 | 187.15 | 216.02 | 229.69 | 278.27 | 328.67 | 366.87 | 455.90 | 462.10 | 594.93 |
| Kerala | 51.00 | 71.80 | 85.97 | 103.94 | 120.43 | 149.39 | 181.36 | 189.14 | 247.88 | 298.51 |
| Madhya Pradesh | 128.21 | 141.51 | 176.86 | 196.10 | 234.77 | 260.62 | 288.00 | 356.81 | 425.32 | 465.49 |
| Maharashtra | 280.04 | 283.77 | 321.16 | 363.79 | 408.83 | 450.09 | 474.16 | 600.50 | 662.27 | 688.96 |
| Orissa | 46.55 | 67.50 | 82.41 | 114.16 | 140.11 | 164.47 | 154.75 | 187.55 | 217.72 | 210.71 |
| Punjab | 69.78 | 68.62 | 113.41 | 112.52 | 152.25 | 319.49 | 231.41 | 270.42 | 296.59 | 294.40 |
| Rajasthan | 72.75 | 86.99 | 112.84 | 134.56 | 171.10 | 206.45 | 242.30 | 269.26 | 169.45 | 370.26 |
| Tamil Nadu | 283.42 | 260.39 | 254.35 | 310.26 | 301.30 | 361.94 | 404.57 | 403.34 | 451.38 | 578.45 |
| Tripura | 2.95 | 3.72 | 5.78 | 8.53 | 12.97 | 16.54 | 19.85 | 21.54 | 22.90 | 24.69 |
| Uttar Pradesh | 177.62 | 246.52 | 300.32 | 362.60 | 430.80 | 482.07 | 520.74 | 590.58 | 602.06 | 649.34 |
| West Bengal | 66.31 | 107.58 | 123.95 | 146.21 | 159.34 | 174.87 | 182.12 | 194.34 | 208.14 | 144.16 |
| Others | 13.74 | 17.78 | 15.00 | 24.08 | 36.62 | 6.48 | 56.81 | 39.69 | 76.50 | 41.79 |
| All India | 1898.25 | 2124.12 | 2451.47 | 2907.07 | 3348.16 | 4012.63 | 4301.16 | 4891.92 | 5435.80 | 6146.69 |
| Notes: | | | | | | | | | | |
| Data on overdues of commercial banks is missing from 1994 to 1996 | | | | | | | | | | |
| In the case of long-term cooperatives, data from 1996 to 1998 relate to SCARDBs | | | | | | | | | | |

**Annex Table-3: Contd.**

| | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|---|---|---|---|---|---|---|---|---|
| Andhara Pradesh | 961.75 | 1638.03 | 1517.45 | 1265.72 | 745.43 | 800.10 | 1685.81 | 988.32 |
| Assam | 52.77 | 66.45 | 83.13 | 109.36 | 72.80 | 45.60 | 101.56 | 199.54 |
| Bihar | 461.29 | 416.94 | 586.45 | 711.19 | 533.67 | 507.06 | 310.58 | 597.03 |
| Gujarat | 501.05 | 439.45 | 509.05 | 551.41 | 282.19 | 292.11 | 399.36 | 672.76 |
| Haryana | 375.97 | 391.92 | 341.07 | 340.25 | 211.44 | 217.94 | 398.62 | 620.73 |
| Himachal Pradesh | 52.21 | 43.44 | 37.33 | 47.32 | 24.58 | 27.79 | 33.49 | 65.32 |
| Jammu and Kashmir | 16.36 | 18.89 | 20.13 | 22.93 | 24.82 | 19.50 | 23.01 | 56.47 |
| Karnataka | 922.17 | 901.73 | 936.61 | 1020.60 | 515.98 | 510.20 | 680.04 | 1357.18 |
| Kerala | 443.22 | 490.69 | 469.36 | 524.01 | 372.45 | 365.06 | 419.59 | 185.28 |
| Madhya Pradesh | 582.61 | 680.62 | 475.39 | 496.02 | 225.61 | 203.46 | 941.16 | 1334.48 |
| Maharashtra | 1087.06 | 992.84 | 1186.41 | 1379.55 | 859.88 | 988.41 | 1412.16 | 2207.51 |
| Orissa | 301.47 | 265.61 | 281.88 | 317.11 | 179.87 | 194.20 | 223.74 | 465.02 |
| Punjab | 369.88 | 468.30 | 500.46 | 476.22 | 211.23 | 192.78 | 224.51 | 533.35 |
| Rajasthan | 518.12 | 287.73 | 491.63 | 528.38 | 269.65 | 263.82 | 264.48 | 402.66 |
| Tamil Nadu | 893.94 | 530.35 | 1006.70 | 1058.48 | 578.70 | 893.44 | 648.48 | 1267.09 |
| Tripura | 37.92 | 48.88 | 70.50 | 101.34 | 81.84 | 89.32 | 79.19 | 105.36 |
| Uttar Pradesh | 641.94 | 589.03 | 688.24 | 728.22 | 348.19 | 308.75 | 808.88 | 943.21 |
| West Bengal | 242.59 | 290.59 | 284.45 | 257.26 | 121.90 | 127.60 | 273.43 | 482.86 |
| Others | 93.31 | 99.98 | 96.85 | 98.87 | 34.18 | 37.47 | 15.69 | 124.70 |
| All India | 8555.70 | 8661.56 | 9583.16 | 10009.95 | 5694.16 | 6084.65 | 8037.33 | 12614.71 |

| Annex Table 4: State-wise Overdues as a Proportion of Loans Outstanding in all the RFIs from 1980-97 | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 |
| Andhara Pradesh | 27.90 | 23.69 | 24.43 | 28.13 | 25.83 | 26.99 | 26.55 | 26.20 | 25.75 | 25.11 |
| Assam | 57.01 | 54.34 | 38.88 | 41.63 | 34.24 | 21.31 | 20.32 | 18.82 | 22.89 | 21.87 |
| Bihar | 38.11 | 27.23 | 30.60 | 31.06 | 29.77 | 30.59 | 25.44 | 18.68 | 25.95 | 25.52 |
| Gujarat | 42.40 | 46.14 | 30.79 | 32.53 | 30.69 | 30.57 | 26.97 | 27.21 | 22.39 | 24.87 |
| Haryana | 16.83 | 21.32 | 19.82 | 21.19 | 23.90 | 23.53 | 23.98 | 26.07 | 26.16 | 26.11 |
| Himachal Pradesh | 31.06 | 34.09 | 13.50 | 23.28 | 21.95 | 18.35 | 24.72 | 28.87 | 26.35 | 27.25 |
| Jammu and Kashmir | 32.46 | 40.55 | 28.73 | 26.91 | 31.97 | 20.92 | 26.03 | 29.55 | 37.92 | 17.73 |
| Karnataka | 38.03 | 38.17 | 33.76 | 32.63 | 30.70 | 28.62 | 25.76 | 27.32 | 25.00 | 27.76 |
| Kerala | 14.80 | 16.23 | 15.99 | 16.67 | 15.63 | 15.69 | 15.82 | 13.94 | 15.76 | 17.36 |
| Madhya Pradesh | 32.75 | 31.04 | 31.86 | 32.07 | 31.78 | 29.18 | 25.88 | 26.65 | 26.94 | 25.28 |
| Maharashtra | 40.60 | 34.88 | 31.39 | 32.17 | 30.19 | 28.33 | 26.23 | 27.48 | 26.01 | 22.10 |
| Orissa | 23.95 | 28.55 | 26.62 | 28.76 | 28.78 | 32.00 | 26.61 | 29.94 | 30.95 | 31.08 |
| Punjab | 20.00 | 14.04 | 18.57 | 15.55 | 15.94 | 32.98 | 21 15 | 21.05 | 21.52 | 18.34 |
| Rajasthan | 25.92 | 24.76 | 24.68 | 24.10 | 26.73 | 28.43 | 28.48 | 27.56 | 14.93 | 28.95 |
| Tamil Nadu | 48.23 | 46.10 | 33.22 | 36.33 | 28.81 | 29.29 | 28.35 | 25.42 | 23.06 | 25.36 |
| Tripura | 38.26 | 30.12 | 29.50 | 35.86 | 47.46 | 48.08 | 45.63 | 40.50 | 32.06 | 26.41 |
| Uttar Pradesh | 23.27 | 27.39 | 27.01 | 28.39 | 28.92 | 28.40 | 27.08 | 27.07 | 24.67 | 23.47 |
| West Bengal | 28.11 | 41.22 | 40.06 | 42.25 | 40.38 | 37.19 | 31.07 | 29.31 | 27.88 | 18.09 |
| Others | 47.23 | 38.10 | 18.82 | 23.78 | 26.76 | 3.06 | 21.09 | 12.81 | 25.23 | 10.83 |
| All India | 31.45 | 30.21 | 27.51 | 28.56 | 27.31 | 27.79 | 25.57 | 25.13 | 24.04 | 23.82 |

**Annex Table-4: Contd.**

| | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | Average |
|---|---|---|---|---|---|---|---|---|---|
| Andhara Pradesh | 30.42 | 24.59 | 34.20 | 25.34 | 23.96 | 22.58 | 61.28 | 24.03 | 28.17 |
| Assam | 20.24 | 25.68 | 28.82 | 38.81 | 55.15 | 30.34 | 49.65 | 34.56 | 34.14 |
| Bihar | 29.43 | 28.95 | 35.67 | 40.69 | 59.06 | 52.45 | 38.58 | 31.32 | 33.28 |
| Gujarat | 31.56 | 25.90 | 26.33 | 27.11 | 22.56 | 21.11 | 26.11 | 22.83 | 28.78 |
| Haryana | 28.96 | 29.24 | 22.23 | 21.49 | 19.46 | 18.62 | 24.01 | 21.23 | 23.01 |
| Himachal Pradesh | 37.39 | 31.85 | 22.55 | 27.30 | 25.84 | 21.98 | 21.87 | 21.03 | 25.40 |
| Jammu and Kashmir | 15.58 | 22.98 | 27.18 | 33.32 | 41.13 | 29.19 | 31.84 | 34.12 | 29.34 |
| Karnataka | 36.86 | 36.69 | 35.88 | 35.32 | 32.59 | 28.82 | 31.16 | 28.12 | 31.84 |
| Kerala | 21.93 | 22.01 | 18.64 | 18.44 | 14.80 | 13.94 | 14.60 | 8.35 | 16.14 |
| Madhya Pradesh | 27.39 | 29.09 | 25.86 | 27.40 | 29.62 | 23.74 | 46.05 | 32.76 | 29.74 |
| Maharashtra | 30.27 | 27.64 | 29.74 | 33.98 | 31.35 | 30.55 | 58.06 | 45.08 | 32.56 |
| Orissa | 39.18 | 36.10 | 36.38 | 37.04 | 36.23 | 34.82 | 35.59 | 33.56 | 32.01 |
| Punjab | 19.54 | 23.02 | 23.06 | 21.06 | 21.05 | 15.91 | 15.64 | 16.95 | 19.74 |
| Rajasthan | 35.25 | 26.31 | 32.99 | 31.80 | 30.89 | 25.48 | 22.60 | 18.73 | 26.59 |
| Tamil Nadu | 52.65 | 18.66 | 54.74 | 28.10 | 38.24 | 57.08 | 22.49 | 17.46 | 31.88 |
| Tripura | 34.76 | 50.28 | 66.13 | 82.14 | 81.84 | 80.43 | 78.66 | 74.19 | 51.24 |
| Uttar Pradesh | 22.83 | 18.77 | 19.97 | 19.53 | 18.07 | 13.73 | 19.61 | 13.44 | 22.82 |
| West Bengal | 27.27 | 31.80 | 31.01 | 29.78 | 36.84 | 33.32 | 32.86 | 23.10 | 32.31 |
| Others | 25.24 | 27.62 | 26.04 | 29.20 | 58.35 | 57.18 | 29.90 | 23.46 | 28.04 |
| All India | 29.09 | 25.76 | 28.86 | 27.74 | 27.73 | 26.38 | 28.77 | 23.92 | 27.20 |

| Annex Table 5: Age-Wise Distribution of the Amount of Institutional Overdues in different years, Rs. crore | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Year | | Total | upto 1 Yr | 1-2 yrs | 2-3 yrs | over 3 yrs | | |
| mercial Banks | | | | | | | | |
| 1987 | | 1969.63 | 28.62 | 21.56 | 17.53 | 32.28 | | |
| 1989 | | 2568.28 | 28.85 | 20.57 | 18.26 | 32.32 | | |
| | | | | | | | | |
| PACS | | | | | | | | |
| 1979-80 | | 1088.54 | 39.35 | 20.76 | 16.51 | 23.37 | | |
| 1980-81 | | 1086.39 | 35.81 | 23.33 | 17.67 | 23.17 | | |
| 1981-82 | | 1248.41 | 35.23 | 26.68 | 15.56 | 22.51 | | |
| 1982-83 | | 1417.25 | 38.22 | 22.7 | 15.69 | 23.39 | | |
| 1983-84 | | 1531.54 | 36.49 | 23.6 | 16.76 | 23.14 | | |
| 1984-85 | | 1765.00 | 36.37 | 22.19 | 17.09 | 24.34 | | |
| 1985-86 | | 1859.66 | 35.21 | 23.12 | 17.42 | 24.26 | | |
| 1986-87 | | 1994.64 | 34.21 | 23.29 | 16.43 | 26.07 | | |
| 1987-88 | | 2108.59 | 36.88 | 23.68 | 16.06 | 23.39 | | |
| 1988-89 | | 2373.80 | 37.95 | 22.57 | 17.09 | 22.39 | | |
| 1989-90 | | 2986.80 | 42.77 | 18.95 | 15.24 | 23.04 | | |
| 1990-91 | | 2169.01 | 34.57 | 26.50 | 15.55 | 23.37 | | |
| 1991-92 | | 3107.47 | 27.62 | 17.66 | 15.13 | 39.58 | | |
| 1992-93 | | 3093.49 | 42.73 | 19.70 | 15.46 | 22.12 | | |
| 1993-94 | | 3160.78 | 43.42 | 20.21 | 15.09 | 21.28 | | |
| 1994-95 | | 3605.32 | 30.62 | 18.33 | 24.50 | 26.56 | | |
| 1995-96 | | 5142.39 | - | - | - | 15 | | |
| 1996-97 | | 4125.38 | - | - | - | 18 | | |
| | | | | | | | | |
| | | | | | | | | |
| LDBs | | Total | upto 1 Yr | 1-3 yrs | 3-5 yrs | over 5 yrs | | |
| 1987 | | 262.78 | 30.01 | 30.3 | 23.69 | 16.01 | | |
| 1988 | | 308.58 | 26.46 | 3.27 | 21.67 | 19.14 | | |
| 1989 | | 212.36 | 33.38 | 29.29 | 18.54 | 18.09 | | |
| | | | | | over 3 yrs | | | |
| 1996 | | 915.44 | - | - | 23.41 | - | | |
| 1997 | | 1024.92 | - | - | 29.56 | - | | |
| 1998 | | 1230.97 | - | - | 27.33 | - | | |
| | | | | | | | | |
| RRBs | | Total | upto 1 Yr | 1-2 yrs | 2-3 yrs | 3-5 yrs | 5-8 yrs | over 8 yrs |
| 1989 | | 796.32 | 31.28 | 19.35 | 17.16 | 20.26 | 8.14 | 3.83 |
| 1997 | | 2313.36 | 20.09 | 18.36 | 16.33 | 21.02 | 16.64 | 7.56 |
| Source: Dossier on cooperatives, 1998, NABARD | | | | | | | | |
| Statistics relating to cooperative movement in India | | | | | | | | |
| Statistics on regional rural banks, NABARD | | | | | | | | |
| Katula and Gulati (1992) | | | | | | | | |

**Annex Table 6: Provisioning Norms for each category of Non Performing Assets (NPAs)**

| Asset Classification | Prudential Norms and Provisions |
|---|---|
| 1. Standard Assets | Nil |
| 2. Substandard Assets (loans non-performing for not more than two years) | 10 % of the outstanding |
| 3. Doubtful Assets (loans non performing for > than 3 years)# doubtful for more than three years. | 100% of the unsecured assets; for secured 20% if doubtful for less than one year; 30% if doubtful for one to three years; 50% if |
| 4. Loss Assets (all other assets deemed irrecoverable where the loss has been identified by internal or external auditors or by the RBI inspectors, but where the amount has not been written off) | 100 % of the loan outstandings. |

*Source*: RBI Bulletin (1999). # This two years period is being reduced to 18 months by 31st March 2001.

| Annex Table 7: Asset Classification and NPA Status of Regional Rural Banks, Rs. Crores | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | | Mar-96 | | | |
| States/ | Assets | Standard | Sub-Standard | Doubtful | Loss | Total | %age of NPAs |
| | | Assets | Assets | Assets | Assets | Assets | to Total Assets |
| Andhara Pradesh | | 680.70 | 79.39 | 155.18 | 50.01 | 965.28 | 29.48 |
| Arunachal Pradesh | | 2.04 | 1.80 | 0.22 | 0.16 | 4.22 | 51.64 |
| Assam | | 66.05 | 13.22 | 76.53 | 28.95 | 184.75 | 64.25 |
| Bihar | | 192.87 | 71.24 | 349.08 | 50.54 | 663.73 | 70.94 |
| Gujarat | | 122.72 | 14.19 | 30.37 | 1.89 | 169.17 | 27.46 |
| Haryana | | 123.86 | 10.66 | 63.28 | 11.95 | 209.75 | 40.95 |
| Himachal Pradesh | | 36.14 | 2.63 | 7.72 | 1.00 | 47.49 | 23.89 |
| Jammu and Kashmir | | 21.38 | 2.28 | 18.41 | 9.32 | 51.39 | 58.40 |
| Karnataka | | 664.19 | 65.59 | 132.16 | 29.14 | 891.08 | 25.46 |
| Kerala | | 311.13 | 14.57 | 12.49 | 13.16 | 351.35 | 11.45 |
| Madhya Pradesh | | 247.54 | 38.13 | 190.99 | 57.03 | 533.69 | 53.62 |
| Maharashtra | | 139.83 | 15.14 | 109.67 | 4.22 | 268.86 | 47.99 |
| Manipur | | 1.22 | 0.20 | 3.14 | 0.00 | 4.55 | 73.21 |
| Meghalaya | | 4.35 | 1.62 | 4.46 | 1.43 | 11.86 | 63.32 |
| Mizoram | | 3.84 | 2.19 | 1.81 | 2.25 | 10.09 | 61.94 |
| Nagaland | | 0.24 | 0.04 | 0.17 | 0.40 | 0.85 | 71.27 |
| Orissa | | 185.47 | 39.27 | 118.48 | 46.05 | 389.27 | 52.35 |
| Punjab | | 72.03 | 4.67 | 37.93 | 2.87 | 117.50 | 38.70 |
| Rajasthan | | 234.02 | 27.03 | 88.96 | 18.98 | 368.99 | 36.58 |
| Tamil Nadu | | 124.34 | 6.72 | 12.61 | 2.20 | 145.87 | 14.76 |
| Tripura | | 8.24 | 0.91 | 78.78 | 7.84 | 95.77 | 91.40 |
| Uttar Pradesh | | 821.64 | 223.22 | 447.58 | 56.36 | 1548.80 | 46.95 |
| West Bengal | | 208.86 | 58.68 | 164.92 | 38.19 | 470.65 | 55.62 |
| All India | | 4272.70 | 693.38 | 2104.94 | 433.93 | 7504.96 | 43.07 |
| Source: Statistics on Regional Rural Banks, NABARD | | | | | | | |

**Annex Table 7 : Contd.**

| | | | Classification of %age of Loan Assets of RRBs | | | | |
|---|---|---|---|---|---|---|---|
| States/ | Assets | NPAs | Standard | Sub-Standard | Doubtful | Loss | Total |
| | | | Assets | Assets | Assets | Assets | Assets |
| Andhara Pradesh | | 284.58 | 70.52 | 8.22 | 16.08 | 5.18 | 100.00 |
| Arunachal Pradesh | | 2.18 | 48.36 | 42.63 | 5.22 | 3.79 | 100.00 |
| Assam | | 118.70 | 35.75 | 7.16 | 41.42 | 15.67 | 100.00 |
| Bihar | | 470.86 | 29.06 | 10.73 | 52.59 | 7.61 | 100.00 |
| Gujarat | | 46.45 | 72.54 | 8.39 | 17.95 | 1.12 | 100.00 |
| Haryana | | 85.89 | 59.05 | 5.08 | 30.17 | 5.70 | 100.00 |
| Himachal Pradesh | | 11.35 | 76.11 | 5.54 | 16.26 | 2.10 | 100.00 |
| Jammu and Kashmir | | 30.01 | 41.60 | 4.44 | 35.82 | 18.14 | 100.00 |
| Karnataka | | 226.89 | 74.54 | 7.36 | 14.83 | 3.27 | 100.00 |
| Kerala | | 40.22 | 88.55 | 4.15 | 3.55 | 3.75 | 100.00 |
| Madhya Pradesh | | 286.15 | 46.38 | 7.14 | 35.79 | 10.69 | 100.00 |
| Maharashtra | | 129.03 | 52.01 | 5.63 | 40.79 | 1.57 | 100.00 |
| Manipur | | 3.33 | 26.79 | 4.30 | 68.87 | 0.04 | 100.00 |
| Meghalaya | | 7.51 | 36.68 | 13.66 | 37.61 | 12.06 | 100.00 |
| Mizoram | | 6.25 | 38.06 | 21.70 | 17.94 | 22.30 | 100.00 |
| Nagaland | | 0.61 | 28.73 | 4.29 | 20.38 | 46.61 | 100.00 |
| Orissa | | 203.80 | 47.65 | 10.09 | 30.44 | 11.83 | 100.00 |
| Punjab | | 45.47 | 61.30 | 3.97 | 32.28 | 2.44 | 100.00 |
| Rajasthan | | 134.97 | 63.42 | 7.33 | 24.11 | 5.14 | 100.00 |
| Tamil Nadu | | 21.53 | 85.24 | 4.61 | 8.64 | 1.51 | 100.00 |
| Tripura | | 87.53 | 8.60 | 0.95 | 82.26 | 8.19 | 100.00 |
| Uttar Pradesh | | 727.16 | 53.05 | 14.41 | 28.90 | 3.64 | 100.00 |
| West Bengal | | 261.79 | 44.38 | 12.47 | 35.04 | 8.11 | 100.00 |
| All India | | 3232.26 | 56.93 | 9.24 | 28.05 | 5.78 | 100.00 |

| Annex Table 7 contd.: Asset Classification and NPA Status of Regional Rural Banks, Rs. Crores | | | | | | |
|---|---|---|---|---|---|---|
| | | | Mar-97 | | | |
| States/Assets | Standard | Sub-Standard | Doubtful | Loss | Total | %age of NPAs |
| | Assets | Assets | Assets | Assets | Assets | to Total Assets |
| Andhara Pradesh | 854.15 | 81.24 | 140.42 | 45.86 | 1121.67 | 23.85 |
| Arunachal Pradesh | 6.43 | 0.88 | 0.06 | 0.37 | 7.74 | 16.89 |
| Assam | 85.53 | 13.12 | 73.36 | 25.23 | 197.24 | 56.64 |
| Bihar | 289.02 | 40.47 | 389.27 | 46.41 | 765.17 | 62.23 |
| Gujarat | 158.79 | 16.19 | 35.32 | 2.45 | 212.75 | 25.36 |
| Haryana | 172.66 | 10.98 | 67.78 | 7.70 | 259.12 | 33.37 |
| Himachal Pradesh | 41.65 | 3.23 | 8.55 | 0.19 | 53.62 | 22.33 |
| Jammu and Kashmir | 31.84 | 1.90 | 13.99 | 13.88 | 61.61 | 48.32 |
| Karnataka | 841.76 | 79.18 | 111.31 | 18.53 | 1050.78 | 19.89 |
| Kerala | 410.96 | 13.56 | 7.28 | 7.47 | 439.27 | 6.44 |
| Madhya Pradesh | 357.59 | 37.68 | 171.29 | 56.75 | 623.31 | 42.63 |
| Maharashtra | 190.91 | 18.64 | 105.41 | 3.46 | 318.42 | 40.04 |
| Manipur | 1.70 | 0.24 | 3.16 | 0.02 | 5.12 | 66.79 |
| Meghalaya | 8.00 | 1.23 | 5.04 | 1.41 | 15.68 | 48.98 |
| Mizoram | 5.94 | 1.33 | 1.45 | 3.64 | 12.36 | 51.94 |
| Nagaland | 0.44 | 0.02 | 0.60 | 0.00 | 1.06 | 58.90 |
| Orissa | 251.59 | 42.44 | 93.52 | 64.10 | 451.65 | 44.30 |
| Punjab | 81.61 | 9.34 | 35.07 | 3.06 | 129.08 | 36.78 |
| Rajasthan | 323.32 | 39.22 | 87.19 | 16.56 | 466.29 | 30.66 |
| Tamil Nadu | 163.19 | 4.45 | 14.01 | 1.83 | 183.48 | 11.06 |
| Tripura | 10.71 | 1.91 | 78.66 | 0.00 | 91.28 | 88.27 |
| Uttar Pradesh | 960.53 | 244.39 | 467.65 | 66.80 | 1739.37 | 44.78 |
| West Bengal | 259.32 | 54.32 | 170.26 | 28.09 | 511.99 | 49.35 |
| All India | 5507.64 | 715.96 | 2080.65 | 413.81 | 8718.06 | 36.82 |

**Annex Table 7 : Contd.**

| | | Classification of %age of Loan Assets of RRBs | | | | |
|---|---|---|---|---|---|---|
| States/Assets | NPAs | Standard | Sub-Standard | Doubtful | Loss | Total |
| | | Assets | Assets | Assets | Assets | Assets |
| Andhara Pradesh | 267.52 | 76.15 | 7.24 | 12.52 | 4.09 | 100.00 |
| Arunachal Pradesh | 1.31 | 83.11 | 11.37 | 0.80 | 4.72 | 100.00 |
| Assam | 111.71 | 43.36 | 6.65 | 37.19 | 12.79 | 100.00 |
| Bihar | 476.15 | 37.77 | 5.29 | 50.87 | 6.07 | 100.00 |
| Gujarat | 53.96 | 74.64 | 7.61 | 16.60 | 1.15 | 100.00 |
| Haryana | 86.46 | 66.63 | 4.24 | 26.16 | 2.97 | 100.00 |
| Himachal Pradesh | 11.97 | 77.67 | 6.02 | 15.94 | 0.36 | 100.00 |
| Jammu and Kashmir | 29.77 | 51.68 | 3.08 | 22.71 | 22.53 | 100.00 |
| Karnataka | 209.02 | 80.11 | 7.54 | 10.59 | 1.76 | 100.00 |
| Kerala | 28.31 | 93.56 | 3.09 | 1.66 | 1.70 | 100.00 |
| Madhya Pradesh | 265.72 | 57.37 | 6.05 | 27.48 | 9.10 | 100.00 |
| Maharashtra | 127.51 | 59.96 | 5.85 | 33.10 | 1.09 | 100.00 |
| Manipur | 3.42 | 33.21 | 4.69 | 61.73 | 0.37 | 100.00 |
| Meghalaya | 7.68 | 51.02 | 7.84 | 32.14 | 8.99 | 100.00 |
| Mizoram | 6.42 | 48.06 | 10.76 | 11.73 | 29.45 | 100.00 |
| Nagaland | 0.62 | 41.10 | 2.16 | 56.74 | 0.00 | 100.00 |
| Orissa | 200.06 | 55.70 | 9.40 | 20.71 | 14.19 | 100.00 |
| Punjab | 47.47 | 63.22 | 7.24 | 27.17 | 2.37 | 100.00 |
| Rajasthan | 142.97 | 69.34 | 8.41 | 18.70 | 3.55 | 100.00 |
| Tamil Nadu | 20.29 | 88.94 | 2.43 | 7.64 | 1.00 | 100.00 |
| Tripura | 80.57 | 11.73 | 2.09 | 86.17 | 0.00 | 100.00 |
| Uttar Pradesh | 778.84 | 55.22 | 14.05 | 26.89 | 3.84 | 100.00 |
| West Bengal | 252.67 | 50.65 | 10.61 | 33.25 | 5.49 | 100.00 |
| All India | 3210.42 | 63.18 | 8.21 | 23.87 | 4.75 | 100.00 |

| Annex Table 7 contd.: Asset Classification and NPA Status of Regional Rural Banks, Rs. Crores | | | | | | |
|---|---|---|---|---|---|---|
| | | | Mar-98 | | | |
| States/Assets | Standard | Sub-Standard | Doubtful | Loss | Total | %age of NPAs |
| | Assets | Assets | Assets | Assets | Assets | to Total Assets |
| Andhara Pradesh | 969.10 | 94.49 | 139.45 | 36.21 | 1239.25 | 21.80 |
| Arunachal Pradesh | 16.09 | 0.84 | 0.06 | 0.36 | 17.35 | 7.24 |
| Assam | 100.56 | 14.06 | 60.37 | 15.42 | 190.41 | 47.19 |
| Bihar | 377.28 | 53.14 | 363.83 | 58.26 | 852.51 | 55.74 |
| Gujarat | 201.74 | 18.81 | 36.94 | 2.14 | 259.63 | 22.30 |
| Haryana | 224.28 | 15.56 | 63.79 | 6.64 | 310.27 | 27.71 |
| Himachal Pradesh | 49.23 | 3.66 | 7.36 | 0.58 | 60.83 | 19.07 |
| Jammu and Kashmir | 45.98 | 3.79 | 8.62 | 20.40 | 78.79 | 41.64 |
| Karnataka | 963.20 | 105.08 | 110.29 | 13.82 | 1192.39 | 19.22 |
| Kerala | 484.22 | 17.71 | 7.36 | 6.43 | 515.72 | 6.11 |
| Madhya Pradesh | 474.32 | 53.53 | 142.98 | 49.26 | 720.09 | 34.13 |
| Maharashtra | 232.49 | 30.14 | 98.91 | 4.33 | 365.87 | 36.46 |
| Manipur | 2.33 | 0.32 | 3.20 | 0.02 | 5.87 | 60.32 |
| Meghalaya | 10.62 | 2.10 | 5.06 | 1.78 | 19.56 | 45.71 |
| Mizoram | 6.79 | 1.79 | 1.46 | 3.26 | 13.30 | 48.95 |
| Nagaland | 0.56 | 0.01 | 0.70 | 0.00 | 1.27 | 56.01 |
| Orissa | 330.27 | 50.80 | 88.92 | 61.14 | 531.13 | 37.82 |
| Punjab | 97.90 | 8.52 | 33.77 | 3.52 | 143.71 | 31.88 |
| Rajasthan | 424.54 | 39.74 | 88.13 | 10.77 | 563.18 | 24.62 |
| Tamil Nadu | 180.52 | 6.58 | 12.69 | 1.78 | 201.57 | 10.44 |
| Tripura | 14.27 | 1.53 | 76.39 | 2.72 | 94.91 | 84.96 |
| Uttar Pradesh | 1125.72 | 255.71 | 485.11 | 59.05 | 1925.59 | 41.54 |
| West Bengal | 290.77 | 57.99 | 179.99 | 28.74 | 557.49 | 47.84 |
| All India | 6622.78 | 835.90 | 2015.38 | 386.63 | 9860.69 | 32.84 |

**Annex Table 7 : Contd.**

| | | Classification of %age of Loan Assets of RRBs | | | | |
|---|---|---|---|---|---|---|
| States/Assets | NPAs | Standard | Sub-Standard | Doubtful | Loss | Total |
| | | Assets | Assets | Assets | Assets | Assets |
| Andhara Pradesh | 270.15 | 78.20 | 7.62 | 11.25 | 2.92 | 100.00 |
| Arunachal Pradesh | 1.26 | 92.76 | 4.84 | 0.35 | 2.05 | 100.00 |
| Assam | 89.85 | 52.81 | 7.38 | 31.71 | 8.10 | 100.00 |
| Bihar | 475.23 | 44.26 | 6.23 | 42.68 | 6.83 | 100.00 |
| Gujarat | 57.89 | 77.70 | 7.24 | 14.23 | 0.82 | 100.00 |
| Haryana | 85.99 | 72.29 | 5.01 | 20.56 | 2.14 | 100.00 |
| Himachal Pradesh | 11.60 | 80.93 | 6.02 | 12.10 | 0.95 | 100.00 |
| Jammu and Kashmir | 32.81 | 58.36 | 4.81 | 10.94 | 25.89 | 100.00 |
| Karnataka | 229.19 | 80.78 | 8.81 | 9.25 | 1.16 | 100.00 |
| Kerala | 31.50 | 93.89 | 3.43 | 1.43 | 1.25 | 100.00 |
| Madhya Pradesh | 245.77 | 65.87 | 7.43 | 19.86 | 6.84 | 100.00 |
| Maharashtra | 133.38 | 63.54 | 8.24 | 27.03 | 1.18 | 100.00 |
| Manipur | 3.54 | 39.68 | 5.45 | 54.50 | 0.37 | 100.00 |
| Meghalaya | 8.94 | 54.29 | 10.74 | 25.87 | 9.10 | 100.00 |
| Mizoram | 6.51 | 51.05 | 13.46 | 10.98 | 24.51 | 100.00 |
| Nagaland | 0.71 | 43.99 | 1.02 | 54.99 | 0.00 | 100.00 |
| Orissa | 200.86 | 62.18 | 9.56 | 16.74 | 11.51 | 100.00 |
| Punjab | 45.81 | 68.12 | 5.93 | 23.50 | 2.45 | 100.00 |
| Rajasthan | 138.64 | 75.38 | 7.06 | 15.65 | 1.91 | 100.00 |
| Tamil Nadu | 21.05 | 89.56 | 3.26 | 6.30 | 0.88 | 100.00 |
| Tripura | 80.64 | 15.04 | 1.61 | 80.49 | 2.87 | 100.00 |
| Uttar Pradesh | 799.87 | 58.46 | 13.28 | 25.19 | 3.07 | 100.00 |
| West Bengal | 266.72 | 52.16 | 10.40 | 32.29 | 5.16 | 100.00 |
| All India | 3237.91 | 67.16 | 8.48 | 20.44 | 3.92 | 100.00 |

**Annex Table 8: Asset Classification and NPA Status of Short Term Cooperatives, Rs. Crore**

| | SCBs | | | | | |
|---|---|---|---|---|---|---|
| | March 1996-97 | | | March 1997-98 | | |
| | Impaired Assets (NPAs) | NPAs as % to Total Assets | NPAs as % to Loans Outstanding | Impaired Assets (NPAs) | NPAs as % to Total Assets | NPAs as % to Loans Outstanding |
| Andhra Pradesh | 165.82 | 10.00 | 5.00 | 627.25 | 19.00 | 19.00 |
| Arunachal Pradesh | - | - | - | - | - | - |
| Assam | 73.64 | 47.00 | 47.00 | 81.83 | 50.00 | 50.00 |
| Bihar | 240.43 | 57.00 | 57.00 | 286.32 | 66.00 | 66.00 |
| Gujarat | 28.36 | 3.00 | 3.00 | 9.43 | 1.00 | 1.00 |
| Haryana | 13.26 | 1.00 | 1.00 | 14.16 | 1.00 | 1.00 |
| Himachal Pradesh | 36.85 | 27.00 | 27.00 | 48.26 | 35.00 | 35.00 |
| Jammu and Kashmir | 6.16 | 22.37 | 22.37 | 10.78 | 28.20 | 28.20 |
| Karnataka | 26.07 | 4.00 | 4.00 | 21.88 | 3.00 | 3.00 |
| Kerala | 30.93 | 6.00 | 6.00 | 13.24 | 3.00 | 3.00 |
| Madhya Pradesh | 38.70 | 3.13 | 3.13 | 57.54 | 4.32 | 4.32 |
| Maharashtra | 505.91 | 13.00 | 13.00 | 763.81 | 19.00 | 20.00 |
| Manipur | 5.44 | 31.00 | 31.00 | 16.60 | 97.00 | 97.00 |
| Meghalaya | 14.84 | 33.00 | 33.00 | 16.81 | 31.00 | 31.00 |
| Mizoram | 8.51 | 34.00 | 34.00 | 9.92 | 36.00 | 36.00 |
| Nagaland | 16.19 | 76.00 | 76.00 | 13.28 | 56.00 | 56.00 |
| Orissa | 28.93 | 7.00 | 7.00 | 28.31 | 5.00 | 5.00 |
| Punjab | 20.90 | 2.00 | 2.00 | 22.80 | 2.00 | 2.00 |
| Rajasthan | 77.34 | 9.00 | 15.00 | 58.28 | 6.00 | 10.00 |
| Tamil Nadu | 2.47 | 0.18 | 0.18 | 2.64 | 0.19 | 0.19 |
| Tripura | 18.81 | 43.00 | 43.00 | 23.43 | 41.00 | 41.00 |
| Uttar Pradesh | 166.60 | 5.00 | 8.00 | 225.13 | 7.00 | 11.00 |
| West Bengal | 86.17 | 17.00 | 17.00 | 65.54 | 12.00 | 12.00 |
| Goa | 7.79 | 4.00 | 4.00 | 7.85 | 4.00 | 4.00 |
| Chandigarh | 1.78 | 42.00 | 42.00 | 1.74 | 47.00 | 47.00 |
| Delhi | 9.70 | 6.00 | 6.00 | - | - | - |
| Andaman & Nicobar | 8.41 | 32.00 | 32.00 | 7.04 | 24.00 | 24.00 |
| Pondicherry | 7.36 | 13.00 | 13.00 | 8.68 | 15.00 | 15.00 |
| All India | 1647.37 | 20.28 | 20.43 | 2442.55 | 23.57 | 23.91 |

Source: Dossier on Cooperatives: state-wise status the cooperative credit structure, March 1998, NABARD, Mumbai

**Annex Table 8 : Contd.**

| | DCCBs | | | | | |
|---|---|---|---|---|---|---|
| | March 1996-97 | | | March 1997-98 | | |
| | Impaired Assets (NPAs) | NPAs as % to Total Assets | NPAs as % to Loans Outstanding | Impaired Assets (NPAs) | NPAs as % to Total Assets | NPAs as % to Loans Outstanding |
| Andhra Pradesh | 214.79 | 12.00 | 17.00 | 509.78 | 16.00 | 13.00 |
| Arunachal Pradesh | - | - | - | - | - | - |
| Assam | 8.27 | 89.00 | 89.00 | 8.27 | 89.00 | 89.00 |
| Bihar | 353.19 | 73.00 | 67.00 | 355.53 | 73.00 | 68.00 |
| Gujarat | 440.20 | 20.00 | 20.00 | 593.74 | 25.00 | 25.00 |
| Haryana | 63.69 | 4.00 | 4.00 | 96.90 | 6.00 | 6.00 |
| Himachal Pradesh | 16.47 | 16.00 | 16.00 | 16.71 | 15.00 | 15.00 |
| Jammu and Kashmir | 41.24 | 40.60 | 40.05 | 63.55 | 48.18 | 55.72 |
| Karnataka | 620.55 | 31.00 | 40.00 | 245.58 | 13.00 | 14.00 |
| Kerala | 259.48 | 15.00 | 16.00 | 323.51 | 18.00 | 18.00 |
| Madhya Pradesh | 391.49 | 21.36 | 21.36 | 406.32 | 18.63 | 18.63 |
| Maharashtra | 1480.02 | 21.00 | 22.00 | 1405.84 | 20.00 | 20.00 |
| Manipur | - | - | - | - | - | - |
| Meghalaya | - | - | - | - | - | - |
| Mizoram | - | - | - | - | - | - |
| Nagaland | - | - | - | - | - | - |
| Orissa | 140.15 | 22.00 | 23.00 | 171.15 | 20.00 | 22.00 |
| Punjab | 90.54 | 7.00 | 8.00 | 100.03 | 7.00 | 8.00 |
| Rajasthan | 117.82 | 12.00 | 16.00 | 137.46 | 9.00 | 16.00 |
| Tamil Nadu | 403.06 | 10.76 | 10.76 | 399.70 | 12.51 | 9.62 |
| Tripura | - | - | - | - | - | - |
| Uttar Pradesh | 591.09 | 28.00 | 29.00 | 631.14 | 23.00 | 30.00 |
| West Bengal | 82.34 | 16.00 | 16.00 | 87.96 | 15.00 | 15.00 |
| Goa | - | - | - | - | - | - |
| Chandigarh | - | - | - | - | - | - |
| Delhi | - | - | - | - | - | - |
| Andaman & Nicobar | - | - | - | - | - | - |
| Pondicherry | - | - | - | - | - | - |
| All India | 5314.39 | 25.81 | 26.77 | 5551.17 | 25.20 | 26.06 |

Annex Table 8 contd.: Asset Classification and NPA Status of Long Term Cooperatives as in 1997-98, Rs. Crore

| | SCARDBs | | | | | PCARDBs | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Standard | ub-standard | Doubtful | Loss | NPAs | Standard | standard | Doubtful | Loss | NPAs |
| Andhra Pradesh | - | - | - | - | - | - | - | - | - | - |
| Arunachal Pradesh | - | - | - | - | - | - | - | - | - | - |
| Assam | - | - | - | - | - | - | - | - | - | - |
| Bihar | - | - | - | - | - | - | - | - | - | - |
| Gujarat | 391.18 | 130.99 | 54.21 | | 185.20 | - | - | - | - | - |
| Haryana | - | - | - | - | - | 681.57 | 68.73 | 33.24 | - | 101.97 |
| Himachal Pradesh | 78.60 | 1.35 | 1.81 | - | 3.16 | 22.05 | 0.36 | 0.21 | - | 0.57 |
| Jammu and Kashmir | 17.90 | 1.58 | 3.53 | - | 5.11 | - | - | - | - | - |
| Karnataka | 941.21 | 19.46 | 38.91 | - | 58.37 | - | - | - | - | - |
| Kerala | 794.51 | 13.91 | 2.89 | - | 16.80 | - | - | - | - | - |
| Madhya Pradesh | 452.92 | 54.11 | 13.67 | - | 67.78 | 346.22 | 55.39 | 95.93 | 0.24 | 151.56 |
| Maharashtra | 640.26 | 172.92 | 239.01 | 1.46 | 413.39 | - | - | - | - | - |
| Manipur | - | - | - | - | - | - | - | - | - | - |
| Meghalaya | - | - | - | - | - | - | - | - | - | - |
| Mizoram | - | - | - | - | - | - | - | - | - | - |
| Nagaland | - | - | - | - | - | - | - | - | - | - |
| Orissa | 17.22 | 14.15 | 69.03 | - | 83.18 | 16.40 | 21.85 | 45.54 | 0.91 | 68.30 |
| Punjab | 922.10 | - | - | - | - | 957.51 | 2.69 | - | - | 2.69 |
| Rajasthan | 660.51 | 2.77 | 0.63 | - | 3.40 | 542.08 | 63.23 | 49.23 | 1.28 | 113.74 |
| Tamil Nadu | 742.10 | 107.12 | 9.29 | 2.48 | 118.89 | 648.63 | 106.00 | 73.23 | 18.48 | 197.71 |
| Tripura | - | - | - | - | - | - | - | - | - | - |
| Uttar Pradesh | 1014.61 | 248.59 | 99.70 | 8.27 | 356.56 | - | - | - | - | - |
| West Bengal | - | - | - | - | - | - | - | - | - | - |
| Goa | - | - | - | - | - | - | - | - | - | - |
| Chandigarh | - | - | - | - | - | - | - | - | - | - |
| Delhi | - | - | - | - | - | - | - | - | - | - |
| Andaman & Nicobar | - | - | - | - | - | - | - | - | - | - |
| Pondicehrry | 5.44 | 0.04 | 0.67 | - | 0.71 | - | - | - | - | - |
| All India | 6678.56 | 766.99 | 533.35 | 12.21 | 1312.55 | 3214.46 | 318.25 | 297.38 | 20.91 | 636.54 |

| Annex Table 8 contd.: Asset Classification and NPA Status of Long Term Cooperatives by March 1998, Rs. Crore | | | | | | | |
|---|---|---|---|---|---|---|---|
| | SCARDBs | | | PCARDB | | | |
| | Impaired Assets (NPAs) | NPAs as % to Total Assets | NPAs as % to Loans Outstanding | Impaired Assets (NPAs) | NPAs as % to Total Assets | NPAs as % to Loans Outstanding | |
| Andhra Pradesh | - | - | - | - | - | - | |
| Arunachal Pradesh | - | - | - | - | - | - | |
| Assam | - | - | - | - | - | - | |
| Bihar | 83.18 | 83.00 | 83.00 | 68.30 | 81.00 | 81.00 | |
| Gujarat | 185.20 | 32.00 | 33.00 | - | - | - | |
| Haryana | - | - | - | 101.97 | 13.00 | 13.00 | |
| Himachal Pradesh | 3.16 | 4.00 | 4.00 | 0.56 | 2.00 | 2.00 | |
| Jammu and Kashmir | 5.11 | 22.00 | 22.00 | 2.69 | 0.28 | 0.28 | |
| Karnataka | 58.37 | 6.00 | 6.00 | - | - | - | |
| Kerala | 16.80 | 2.00 | 3.00 | - | - | - | |
| Madhya Pradesh | 67.78 | 13.00 | 13.00 | 151.55 | 30.00 | 30.00 | |
| Maharashtra | 413.39 | 39.00 | 39.00 | | | | |
| Manipur | - | - | - | - | - | - | |
| Meghalaya | - | - | - | - | - | - | |
| Mizoram | - | - | - | - | - | - | |
| Nagaland | - | - | - | - | - | - | |
| Orissa | 83.18 | 83.00 | 83.00 | 68.30 | 81.00 | 81.00 | |
| Punjab | - | - | - | - | - | - | |
| Rajasthan | 3.40 | 0.51 | 0.51 | 113.74 | 17.00 | 17.00 | |
| Tamil Nadu | 118.89 | 14.00 | 14.00 | 197.71 | 23.00 | 23.00 | |
| Tripura | - | - | - | - | - | - | |
| Uttar Pradesh | 356.56 | 26.00 | 26.00 | - | - | - | |
| West Bengal | - | - | - | - | - | - | |
| Goa | - | - | - | - | - | - | |
| Chandigarh | - | - | - | - | - | - | |
| Delhi | - | - | - | - | - | - | |
| Andaman & Nicobar | - | - | - | - | - | - | |
| Pondicehrry | - | 0.71 | 12.00 | - | - | - | |
| All India | 1395.02 | 25.02 | 26.04 | 704.82 | 30.91 | 30.91 | |

**Annex Table 9: Borrowers' View on Causes of defaults (% of borrowers reporting)**

| Particulars | Commercial Bank branches | RRBs | PACS | PLDBs |
|---|---|---|---|---|
| 1. Crop failure due to bad weather | 10.9 | 33.2 | 23.5 | 19.4 |
| 2. Crop failure due to other reasons | 0.6 | 1.0 | 0.7 | 1.5 |
| 3. Inadequate income generation | 17.0 | 31.6 | 11.0 | 11.0 |
| 4. High installments of repayment | 0.4 | 1.6 | 0.4 | 0.3 |
| 5. Repayment schedule not suitable | 0.2 | - | 0.4 | - |
| 6. Diversion of amount for other purposes | 2.3 | 6.2 | 2.6 | 1.0 |
| 7. Political interference & misguidance | 0.5 | 1.6 | 1.1 | 2.0 |
| 8. Lack of understanding of terms | 1.1 | - | 0.6 | 1.0 |
| 9. High interest rate | 0.3 | 0.5 | 0.1 | - |
| 10. Non adjustment of earlier paid installment | 0.6 | 2.6 | 0.7 | 0.5 |
| 11. Unforeseen development in the household | 3.9 | 3.6 | 3.0 | 2.3 |
| 12. Any other | 7.5 | 5.7 | 3.9 | 6.6 |
| 13. None | 54.7 | 12.4 | 52.0 | 54.4 |

*Source*: RBI (1989)

**Annex Table 10:Year-Wise Position of SHGs Linked and Loan Extended**

*(Rs. million)*

| Year | No. of SHGs Linked During an year | Cumulative | Cumulative Bank Loan | Cumulative Refinance |
|---|---|---|---|---|
| 1992-93 | 255 | 255 | 2.89 | 2.68 |
| 1993-94 | 356 | 620 | 6.53 | 4.59 |
| 1994-95 | 1502 | 2122 | 24.45 | 22.93 |
| 1995-96 | 2635 | 4757 | 60.58 | 56.61 |
| 1996-97 | 3841 | 8598 | 118.36 | 106.5 |
| 1997-98 | 5719 | 14317 | 237.59 | 213.82 |
| 1998-99 | 18678 | 32995 | 570.70 | 520.6 |
| 1999-2000 | 61650 | 94645 | 1929.8 | 1501.3 |

*Source*: NABARD (2000a)

**Annex Table 11: Regional Spread of SHGs Linkage**

| Region | Percentage share in linkage as on March | | | |
|---|---|---|---|---|
| | 1996 | 1997 | 1998 | 1999 |
| Northern | 0 | 4 | 3 | 3 |
| North-Eastern | 1* | 1* | 1* | 1* |
| Eastern | 13 | 13 | 13 | 10 |
| Central | 10 | 12 | 11 | 11 |
| Western | 3 | 7 | 10 | 10 |
| Southern | 69 | 63 | 62 | 65 |
| Total | 100 | 100 | 100 | 100 |

* is less than 1 percent

**Annex Table 12: Bank wise position of Linkage as on 31st March 1998**

*(Rs. million)*

| Bank category | SHGs | | Bank Loan | | Refinance | |
|---|---|---|---|---|---|---|
| | No. | %age | Amount | %age | Amount | %age |
| Commercial banks | 8704 | 61 | 154.8 | 65 | 138.3 | 65 |
| Regional Rural Banks | 5192 | 36 | 77.6 | 33 | 71.5 | 33 |
| Co-operatives | 421 | 3 | 5.2 | 2 | 4.0 | 2 |
| Total | 14317 | 100 | 237.6 | 100 | 213.8 | 100 |

**Annex Table 13: Model Wise Linkage as on 31st March 1998**

*(Rs. million)*

| Bank category | SHGs | | Bank Loan | | Refinance | |
|---|---|---|---|---|---|---|
| | No. | % | Amount | % | Amount | % |
| I: NABARD-Bank-SHGs | 2536 | 18 | 66.9 | 28 | 62.0 | 29 |
| II: NABARD-Bank-NGO (as facilitator) -SHG | 6587 | 46 | 105.1 | 44 | 89.3 | 42 |
| III: NABARD-Bank-NGO (as facilitator & financial agency) - SHG | 5194 | 36 | 65.6 | 28 | 62.5 | 29 |
| Total | 14317 | 100 | 237.7 | 100 | 213.8 | 100 |

*Source* : for Tables 10-13 : NABARD (1998), Puhazhendhi (2000)

**Annex Table 14: Transaction cost and risk cost of different models of lending by Sahyadari Grameena Bank in Shimoga district in Karnataka (1996-97)**

| Particulars | Model I Individual-borrowers | Model II Individuals under IRDP | Model III SHGs |
|---|---|---|---|
| Transaction time in minutes | | | |
| Identification | 30 | 140 | 10 |
| Application | | | |
| Scrutiny & presanction visit | 70 | 75 | Nil since this was done during visit to group |
| Appraisal, sanction & disbursement | 165 | 95 | 210 |
| Post sanction visit | 60 | 40 | – |
| Monitoring, recoveries & reporting | 50 | 90 | 35 |
| Total time | 375 | 440 | 255 |
| Transaction cost (Rs.) | 405 | 476 | 276 |
| Per member cost | 405 | 476 | 21 |
| Average loan size | 10766 | 5802 | 30400 |
| Transaction cost/ | 3.76 | 8.20 | 0.91 |
| Rs. 100 loan Recovery rate at branch | 34 | 12 | 100 |

*Source* : Srinivasan (2000)

**Annex Table 15 : Viability of lending through Intermediation by SHGs and NGOS**

*(Figures in percentage)*

| Particulars | RRBs | Public Comm.banks | Private Comm.banks |
|---|---|---|---|
| Cost of funds | 5.87 | 5.99 | 7.03 |
| Cost of lending | 3.39 | 1.26 | 1.06 |
| Cost of deposit mobilization | 2.03 | 1.37 | 0.67 |
| Total cost of lending funds | 11.29 | 8.62 | 8.76 |
| Interest recd. | 9.97 | 11.61 | 11.02 |
| Net profit | 1.32 | 2.99 | 2.26 |
| **Impact of Intermediation** | | | |
| Reduction in transaction cost | 1.6 | 1.44 | 1.37 |
| Net profit | 0.28 | 4.43 | 3.63 |

| Models | Model 1 | Model 2 | Model 3 | Model 4 |
|---|---|---|---|---|
| Lending Trough | Direct to borrowers (Individuals) | Direct to borrowers (SHGs) | SHGs | NGOs and SHGs |
| Rate of Interest | Fixed by funding agency | Fixed by funding agency | fixed by SHGs | fixed by SHGs |
| Role of NGO | Nil | Advisory | advisory | as intermediary |
| Responsibility for Repayment | Borrowers | Borrowers | SHGs | NGO and SHGs |
| BankTransaction cost per account | 195 | 147 | 116 | 154 |
| BankTransaction cost per Rs 100 | 3.68 | N/A | 2.19 | N/A |
| Borrower Trans. Cost per account | 272 | 116 | 40 | 36 |
| Recovery Rate | 34.6 % | N/A | 97.2 % | – |

*Source* : V. Puhazhendhi (1995) Notes : Model M1 represents banks lend directly to the ultimate borrowers without having NGOs and SHGs as intermediaries ; Model 2 represents banks lend directly to the borrower with SHGs and NGOs as intermediaries; Model 3 represents banks lend to SHGs to lend to borrowers with NGOs as non-financial intermediaries; Model 4 represents banks give credit to NGOs to lend to SHGs to lend to the ultimate borrowers.