Agricultural Credit in India: Status, Issues and Future Agenda*

RAKESH MOHAN

Introduction: Historical Overview of Agricultural Credit in India

Risk in Indian Farming

Settled agriculture in India has had a long history because of the fertile plains of Northern India irrigated by the Indus, the Ganga-Jamuna river systems and the Brahmaputra in the East. Southern India has its own river systems and has, moreover, been characterised by its impressive history of sophisticated water management systems: perhaps among the most developed historically. As a consequence of this natural fertility and abundant availability of water, ironically, population density grew early in India, and along with that different degrees of poverty.

Despite the existence of these river systems, agriculture in India has always been heavily dependent on the monsoons and has hence been an inherently risky activity. At different times we have also had onerous rural tax systems under different empires, most recently under the British. Indigenous systems of credit had to develop as a consequence of seasonal needs and fluctuations in order to facilitate smoothing of consumption pattern of farmers over the year. With the intermittent failure of the monsoons and other customary vicissitudes of farming, rural indebtedness has been a serious and continuous characteristic of Indian agriculture. Because of the high risk inherent in traditional farming activity, the prevalence of high interest rates was the norm rather than an exception, and the concomitant exploitation and misery that often resulted. Development of rural credit systems has therefore, been found to be intrinsically very difficult and, as we will see, an issue of continuing official concern for over a century.

Early Attention to Agricultural Credit

These problems began to engage the attention of even the British colonial government as early as the 1870s: the practice of extending institutional credit to agriculture can be traced back to that period when farmers were provided with such credit by the Government during drought years. Thinking to do with credit cooperation began in the latter part of the nineteenth century. Finally, the Cooperative Societies Act was passed in 1904 and cooperatives were seen as the premier institutions for disbursing agricultural credit. "For some decades, that is, since long before the organisation of the Reserve Bank, great faith has been placed in India in the potentialities of the cooperative organisation to serve the credit needs of the country, especially of the rural sector" (Reserve Bank of India, 1970, p.68). The early years of the twentieth century were characterised by continuous official attention to the provision of rural credit: a new Act was passed in 1912 giving legal recognition to credit societies and the like (a precursor of micro-finance); the Maclagan Committee on Cooperation in India issued a report in 1915 advocating the establishment of provincial cooperative banks, which got established in almost all provinces by 1930 thus giving rise to the 3-tier cooperative credit structure; the Royal Commission on Agriculture further examined the program of rural credit in 1926-27; Sir Malcolm Darling submitted another report on cooperative credit to the Government of India in 1935, just before the founding of the Reserve Bank of India. This continuing concern reflected the intrinsic problems of extension of rural credit which, to some extent, find resonance even today. It was then reported that in many provinces credit overdues to these credit cooperative institutions constituted 60 to 70 per cent of the outstanding principal due.

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It was in 1935 that the Reserve Bank was founded: the Reserve Bank of India Act, 1934 is unusual among central banks to have specific provision for attention to agricultural credit. Section 54 of the Act enjoined the Reserve Bank to set up an Agriculture Credit Department which was to have an expert staff to advise the central government, state governments, state cooperative banks, and other banks; and to coordinate RBI functions for agricultural credit. Section 17 of the Act empowered it to provide agricultural credit through state cooperative banks or any other banks engaged in the business of agricultural credit.

Among the first activities of the Reserve Bank in agricultural credit were two studies in 1936 and 1937. It was found that almost the entire finance required by agriculturalists was supplied by money lenders and that cooperatives and other agencies played a negligible part. During the period between 1935 and 1950, the Reserve Bank was very active in continuing the attempt to re-invigorate the cooperative credit movement through a variety of initiatives. Besides providing financial accommodation to the cooperative movement, the RBI played a central role in the task of building the cooperative credit structure, which gradually evolved into two separate arms, one for short term credit and another for long term credit - a structure that still exists today. The continuing intense concern with the provision of rural credit continued in the post war years: more than half a dozen committees were appointed between 1945 and 1950. Despite all these efforts, even by 1951 the provision of credit through cooperatives remained meagre with only 3.3 per cent of the cultivators having access to credit from cooperatives, and 0.9 per cent from commercial banks. Furthermore, the funds supplied by the money lenders were subject to high interest rates and other usurious practices and accordingly, legislation on money lending was advocated to check such malpractices.

The foundation for building a broader credit infrastructure for rural credit was laid by the Report of the All India Rural Credit Survey (1954). The Committee of Direction that conducted this survey observed that agricultural credit fell short of the right quantity, was not of the right type, did not serve the right purpose and often failed to go to the right people. The Committee also observed that the performance of co-operatives in the sphere of agricultural credit was deficient in more than one way, but at the same time, co-operatives had a vital role in channelling credit to the farmers and therefore summed up that, "Co-operation has failed, but Co-operation must succeed".

The Committee, apart from visualising cooperatives as an exclusive agency for providing credit to agriculture, urged a well defined role for commercial banks in delivering credit for agriculture in specialised areas, such as marketing, processing, storage and warehousing. Towards this end, it recommended establishment of the State Bank of India and through it, extension of commercial banking facilities to rural and semi-urban areas. Thus, concern with the inadequate extension of agricultural credit had a significant role in the founding of both the Reserve Bank of India and transformation of the Imperial Bank of India into the State Bank of India.

The Period of Substantial Change: 1960s to the 1980s

The inadequacy of rural credit continued to engage the attention of the Reserve Bank and the Government throughout the 1950s and 1960s. The Agricultural Refinance Corporation (ARC) was set up by the Reserve Bank in 1963 to provide funds by way of refinance, but credit cooperatives still did not function too well.

Consequently, the All India Rural Credit Review Committee (Chairman: Shri B. Venkatappiah) was set up in July 1966 to, *inter alia*, review the supply of rural credit in the context of the Fourth Five Year Plan in general, and the requirements of the intensive programmes of agricultural production in different parts of the country, in particular, and to make recommendations for improving the flow of agricultural credit. After a comprehensive review, the Committee recommended that the commercial banks should play a complementary role, along with co-operatives, in extending rural credit. The social control and the subsequent nationalisation of major commercial banks in 1969 (and in 1980) acted as a catalyst in providing momentum to the efforts of leveraging the commercial banking system for extending agricultural credit. The outreach of banks was enlarged considerably within a relatively short period of time. The concept of priority sector was introduced in 1969 to underscore the imperative of financing certain neglected sectors like agriculture. The channelling of credit to the priority sectors was sought to be achieved through the

stipulation that a certain proportion of the total net bank credit be deployed in these sectors by specific target dates*. Decentralised credit planning through the Lead Bank Scheme was also introduced, under which, each district was placed with one of the commercial banks (called the district Lead Bank) to spearhead the credit allocation for, *inter alia*, agricultural lending. In order to emphasise the developmental and promotional role assigned to the ARC in addition to refinancing, the Corporation was renamed as the Agricultural Refinance and Development Corporation (ARDC) by an amendment to the Act in 1975.

It was also the case that the 1950s and 1960s had been characterised by a big industrial push with inadequate attention being given to agriculture. It was the 1965-1967 drought that brought matters to a head and focussed concentrated attention to agriculture. The Green Revolution then followed in the late 1960s and 1970s necessitating adequate availability of credit that could enable the purchase of inputs such as fertilizer, high yielding varieties of seeds, pump sets for irrigation, and the like.

Despite all these efforts, the flow of credit to the agricultural sector failed to exhibit any appreciable improvement due mainly to the fact that commercial banks were not tuned to the needs and requirements of the small and marginal farmers, while the co-operatives, on the other hand, lacked resources to meet the expected demand. The solution that was found involved the establishment of a separate banking structure, capable of combining the local feel and familiarity of rural problems characteristic of co-operatives and the professionalism and large resource base of commercial banks. Following the recommendations of the Narasimham Working Group (1975), Regional Rural Banks (RRBs) were set up. Thus, by the end of 1977, there emerged three separate institutions for providing rural credit, which is often described as the 'multi-agency approach'.

Following the recommendations of the "Committee to Review Arrangements for Institutional Credit for Agriculture and Rural Development", the National Bank for Agriculture and Rural Development (NABARD) was set up in 1982 for providing credit for promotion of, among others things, agriculture. NABARD took over the entire undertaking of the ARDC and the refinancing functions of the RBI in relation to state cooperatives and RRBs. NABARD is the Apex institution which has been entrusted with a pivotal role in the sphere of policy planning and providing refinance facilities to rural financial institutions to augment their resource base. Since its inception, the NABARD has played a central role in providing financial assistance, facilitating institutional development and encouraging promotional efforts in the area of rural credit. NABARD also administers the Rural Infrastructure Development Fund (RIDF), which was set up in 1995-96; the corpus of RIDF is contributed by scheduled commercial banks to the extent of their shortfall in agricultural lending under the priority sector targets. NABARD has been playing a catalytic role in micro-credit through the conduit of Self-Help Groups (SHGs).

The Period of Introspection and Reforms: 1991 to the Present

Notwithstanding the impressive geographical spread, functional reach and consequent decline in the influence of informal sources of credit, rural financial institutions were characterised by several weaknesses, *viz.*, decline in productivity and efficiency; erosion of repayment ethics and profitability. On the eve of the 1991 reforms, the rural credit delivery system was again found to be in a poor shape (R.V. Gupta Committee, 1998).

The Report of the Committee on the Financial System (Chairman: Shri M. Narasimham, 1991) provided the blue print for carrying out overall financial sector reforms during the 1990s. Furthermore, weaknesses in the performance of rural financial institutions since 1991 resulted in setting up of various committees/working groups/task forces to look into their operations such as: "The High-level Committee on Agricultural Credit through Commercial Banks" (R. V. Gupta, 1998), "Task Force to Study the Functions of Cooperative Credit System and to Suggest Measures for its Strengthening" (Jagdish Capoor, 1999), "Expert Committee on Rural Credit" (V.S. Vyas, 2001), and "The Working Group to Suggest Amendments in the Regional

* At present, scheduled commercial banks (excluding RRBs), are expected to ensure that the priority sector advances constitute 40 per cent of net bank credit and within the overall lending target of 40 per cent, 18 per cent of net bank credit goes to agricultural sector. To ensure that the focus of banks on direct category of agricultural advances does not get diluted, lendings under indirect category should not exceed one-fourth of the agricultural sub-target of 18 per cent, *i.e.*, 4.5 per cent of net bank credit.

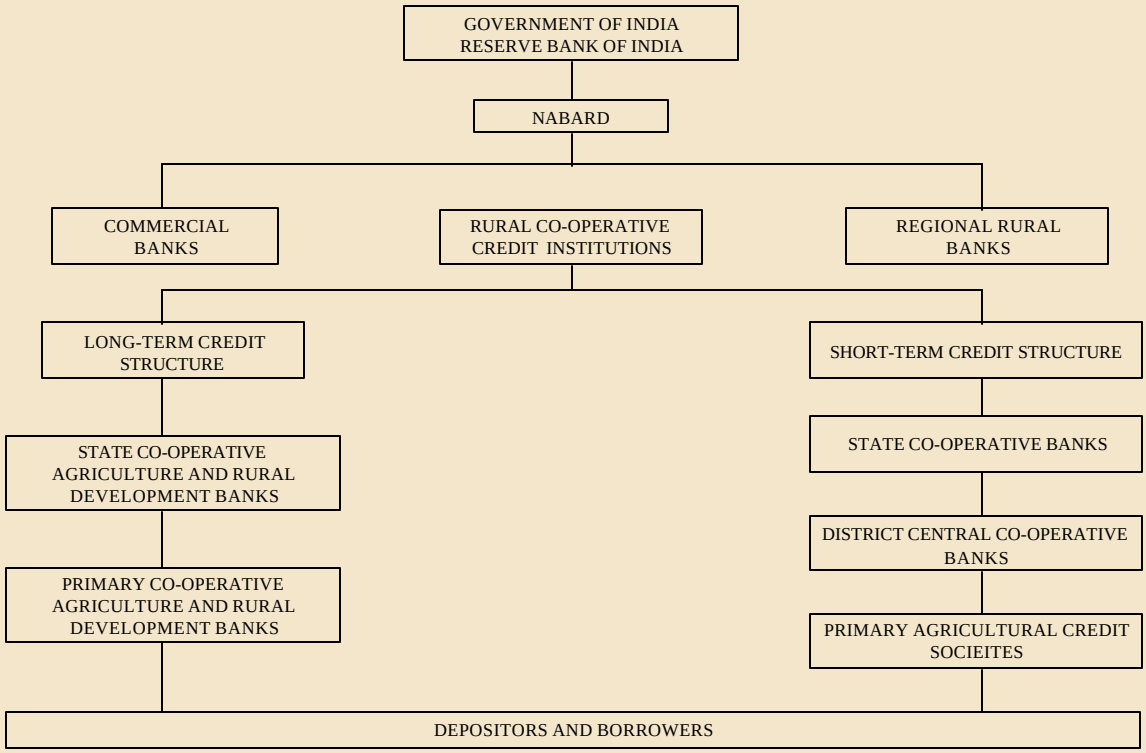
Rural Banks Act, 1976" (M.V.S. Chalapathi Rao, 2002). These committees/working groups/task forces made far-reaching recommendations having a bearing on agricultural credit. While the Capoor Task Force suggested adoption of a Model Co-operative Act, setting up of a Co-operative Rehabilitation and Development Fund at NABARD and Mutual Assistance Fund at the state level, the Vyas Committee (2001) recommended restoration of health of Primary Agricultural Credit Societies (PACs) by scrapping the cadre system, selective delayering of co-operatives credit structure and integration of short and long-term structures. The Chalapathi Rao Working Group (2002) had, in addition to suggesting diversification of the business of RRBs, recommended introduction of capital adequacy norms for RRBs in a phased manner, along with the RRB-specific amount of equity based on the risk-weighted assets ratio.

The financial sector reforms formed an integral part of the overall structural reforms initiated in 1991 and included various measures in the area of agricultural credit such as deregulation of interest rates of co-operatives, and RRBs; deregulation of lending rates of commercial banks for loans above Rs. 2 lakh; recapitalisation of select RRBs; introduction of prudential accounting norms and provisioning requirements for all rural credit agencies; increased refinance support from RBI and capital contribution to NABARD; constitution of the Rural Infrastructure Development Fund (RIDF) in NABARD for infrastructure projects; introduction of Kissan Credit Card (KCC) and stipulation of interest rate not exceeding 9 per cent for crop loans up to Rs.50,000 extended by the public sector banks.

Summing Up

Thus, concern with the inadequacy of agricultural credit has had more than a century of tortuous history. The agricultural credit system (Chart 1) as it has emerged, has been a product of both evolution and intervention and symbolises the system's response to the stimuli from continuing dissatisfaction with credit delivery. The concern for food security and the need for building up buffer stocks, which guided the Green Revolution, created both enhanced and diversified type of credit requirements for agricultural production. In India, a "supply-leading approach" to the institutional development for agriculture credit has been followed.

Chart 1: Structure of Agricultural Credit System in India

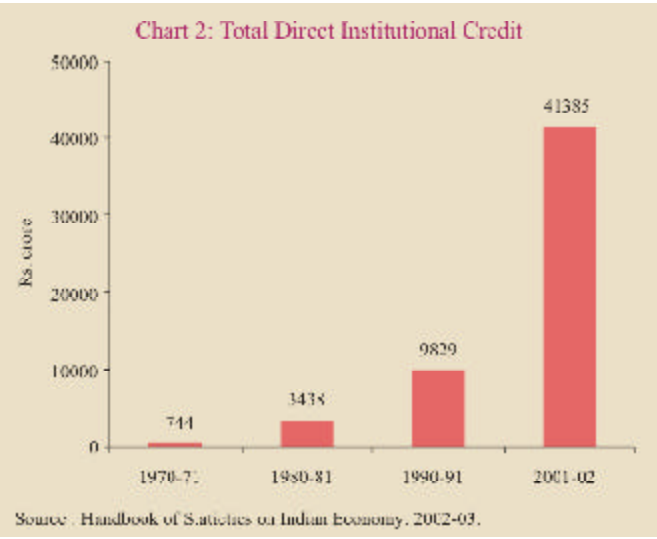


Assessment of Progress in Agricultural Credit

Agricultural credit clearly started to grow after bank nationalisation (Chart 2), and it has been growing continuously since then. With all the concerns and skepticism expressed, the difficult and continuous changes in institutional credit have indeed borne fruit. Over the years there has been a significant increase in the access of rural cultivators to institutional credit and, simultaneously, the role of informal agencies, including money lenders, as source of credit has declined. According to the All India Debt and Investment Survey 1991-92, the relative shares of institutional agencies in the total cash debt of rural cultivators increased from 31.7 per cent in 1971 to 63.2 per cent in 1981 and further to 66.3 per cent in 1991.

Nonetheless, recent years have again been characterised by a concern over the falling share of agricultural credit as a proportion of total credit. This is indeed true, but is this the correct metric to look at the progress of agricultural credit? What would be more relevant is to evaluate agricultural credit as a proportion of agricultural GDP; or short-term credit as a proportion of the value of inputs; or long term credit as a proportion of private investment.

As might be expected, the share of agricultural value added has been falling as a share of total GDP. Hence credit to agriculture may also be expected to fall as a proportion of total credit, assuming relative stability in the share of purchased inputs as a proportion of value added. What is interesting is that the share of agricultural credit as a proportion of agricultural GDP has been rising continuously since the 1950s, and even as a proportion of total GDP until the 1980s. There was indeed a fall in the mid 1990s, but has again risen now (Table 1). It is true, however, that agricultural credit has indeed fallen as a proportion of total credit.



The existing agricultural credit system is geared to the needs of foodgrains production: with the share of foodgrains production falling as a proportion of total agricultural production, it is all the more creditable that agriculture credit has not fallen as a proportion of agricultural GDP. With the share of agriculture in GDP falling continuously, from 36 per cent in 1981 to 29 per cent in 1991 and 22 per cent in 2001, it is to be expected that the share of agricultural credit would also fall as a proportion of total credit, unless this trend is corrected by increasing commercialisation of agriculture.

The age old problem of rural credit has been the excessive reliance of borrowers on money lenders and other informal sources that have entailed usurious interest rates and exploitation. It is quite remarkable how long it has taken to really substitute institutional credit for informal money lending channels and how tortuous the process of change has been: change of any significance took over 50 years from the beginning of serious attention in the 1930s to the 1980s (Table 2). It was the nationalisation of banks in 1969 and subsequent spread of rural bank branches that has really made a difference in reducing, finally the share of money lenders in agricultural credit.

Table 1: Ratio of Direct Agricultural Credit (Disbursements) to Agricultural Gross Domestic Product (GDP), Total GDP and Total Credit

(Per cent)

	Agricultural Credit/ Agricultural GDP	Agricultural Credit/ Total GDP	Agricultural Credit / CS
1950-51	0.5	0.3	n.a
1960-61	3.3	1.3	n.a.
1970s	5.4	2.1	10.8
1980s	8.3	2.6	8.5
1990s	7.4	2.0	6.4
2001-02	8.7	2.0	5.5

n.a. : not available.

Note : 1. Agricultural Credit : Direct credit for agricultural and allied activities extended by Co-operatives, Commercial Banks and Regional Rural Banks.

2. Total GDP and Agricultural GDP are at factor cost and at current prices.

3. CS – Other banks' credit to commercial sector (outstanding) proxy for total credit.

Source: Report on Currency and Finance: Various Issues and Handbook of Statistics on Indian Economy: 2002-03.

Table 2: Relative Share of Borrowing of Cultivator Households from Different Sources

(Per cent)

Sources of Credit	1951	1961	1971	1981	1991
Non –Institutional	92.7	81.3	68.3	36.8	30.6
of which					
Money Lenders	69.7	49.2	36.1	16.1	17.5
Institutional	7.3	18.7	31.7	63.2	66.3
of which					
Cooperative Societies / Banks	3.3	2.6	22.0	29.8	35.2
Commercial Banks	0.9	0.6	2.4	28.8	35.2
Unspecified	–	–	–	–	3.1
Total	100.0	100.0	100.0	100.0	100.0

Source: All India Debt and Investment Survey and RBI Bulletin, February 2000.

As documented in the last section, it has taken drastic action ranging from the formation of cooperatives to bank nationalisation, setting up of RRBs and the like. The Indian record of extension of rural credit is quite a story of institutional innovation.

The remarkable feature of agricultural credit extension in India is the widespread network of Rural Financial Institutions (RFIs). Following the first phase of nationalisation of commercial banks in 1969, large scale branch expansion was undertaken with a view to creating a strong institutional base in rural areas. At the time of nationalisation in June 1969, the total number of rural offices of scheduled commercial banks (SCBs) was 1,833, which then increased significantly to 32,406 by March 2003. The number of co-operative institutions catering to agriculture went up from 95,871 in end-June 1980 to over 1,10,000 at present. The share of the rural branches of scheduled commercial banks (including RRBs) in total increased sharply from 22 per cent in June 1969 to 47 per cent by March 2003. The main story in the expansion of rural credit in the 1980s and 1990s has been the ascendancy of commercial banks, along with RRBs, with a corresponding fall in the share of cooperatives (Table 3). This is reflected in the increasing concern in recent years over the effectiveness, governance and financial health of rural cooperative banks. Just under half of rural credit continues to be extended by them and hence it is essential that they be revitalised and put on a sound business footing.

Table 3: Decadal Average Share of Institutions in Direct Agricultural Credit (Disbursements)

(Per cent)

	Co-operatives	RRBs	Commercial Banks
1970s	79.5	2.3	21.0
1980s	55.9	5.3	38.9
1990s	51.5	6.2	42.3
2001-02	44.0	11.0	45.0

Note : Direct Agricultural Credit (disbursements) from 1975-76 for RRBs and 1971 - 72 for commercial banks.

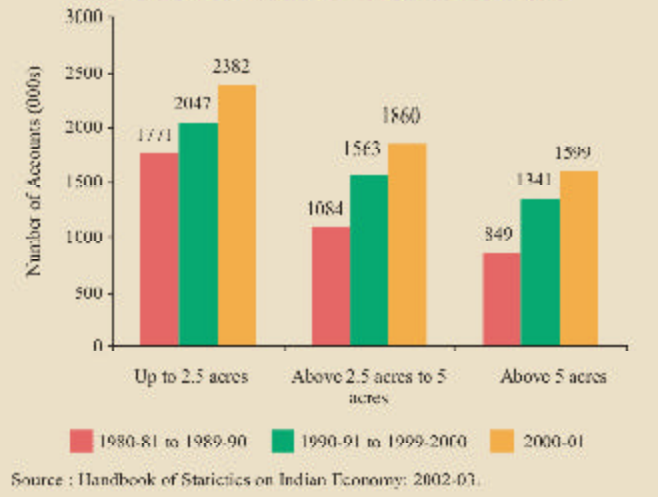
Source: Handbook of Statistics on Indian Economy: 2002-03.

There has been increasing expression of concern on the extension of agricultural credit in the 1990s. There has actually been continuous growth in the number of accounts in all size-wise categories in the case of commercial banks (Chart 3).

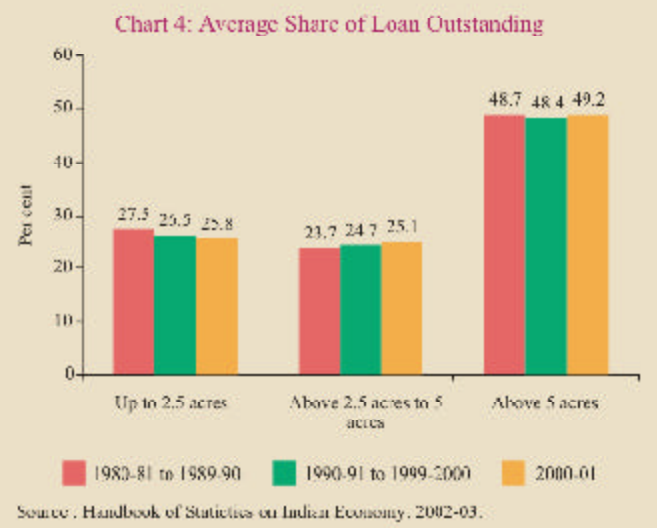
It is probably the case that the introduction of Kissan Credit Cards (KCCs) has also aided this process in the recent years. But it is equally true that the share of small farms in total credit appears to be falling to a certain extent (Chart 4).

This trend needs to be analysed carefully and is a good topic for further research. Are larger farmers becoming more productive and commercial with higher intensity of bought-out inputs, thus requiring higher levels of credit? Or are small farms becoming unviable, making it difficult for banks to finance them? Or, are

Chart 3: Average Number of Accounts: Size-wise



Source : Handbook of Statistics on Indian Economy: 2002-03.



banks becoming more risk averse and hence reluctant to lend?

There is some evidence to the contrary. Available data suggest that agricultural credit has been rising in recent years as a share of both the value of inputs or the value of output (Table 4). Moreover, long-term credit as a share of private investment has also been rising in the 1990s (Table 5). Thus, it is probably fair to say that the agricultural credit effort has not really been slackening in the 1990s. It is also possible that with credit intensity going up in this fashion it could, ironically, also lead to greater risk on the part of borrowers because of greater indebtedness.

Regional Distribution

Among the striking features of the agricultural credit scene in India are the wide regional disparities in the disbursement of agricultural credit by scheduled commercial banks (excluding RRBs). The correct way to evaluate the performance of agricultural credit is to look at the ratio of agricultural credit to state agricultural value added. It is difficult to obtain these data. So, as a second best, we can look at agricultural credit as a proportion of net state domestic product (NSDP). The Southern states stand out with a substantially higher share of agricultural credit (Tables 6 and 7), followed by the Northern and Central regions. Whereas the ratio for the Southern region increased during the latter part of the 1990s, it remained stationery for the Northern, Central and North-Eastern regions. It is also notable that the Southern States have a much more active cooperative movement (not covered in the data reported here), and hence their share of agricultural credit is likely to be even higher. The low share of the Western region is surprising, but could be because of the very active role of cooperatives in this region. The East and North-Eastern regions clearly get a very low share.

Some information is also available on a per capita basis and, as may be expected the Southern region really stands out in terms of exposure to agricultural credit. The per capita extension of agricultural credit in the Eastern and North Eastern regions is extremely low (Table 8). Since these data pertain to commercial banks, the puzzle before us is why should such stark differences exist between regions? Given that Punjab, Haryana, and Western UP are the centres of the green revolution, one would have expected a higher intensity of agricultural credit in the Northern region and why do public sector banks, with similar management and staff, behave so differently between regions? If it is possible for banks to do direct lending for agriculture in the Southern States, why not in the other regions? And why should the differences be so large? Incidentally, it is notable that the rural stress that has emerged in

Table 5: Private Capital Formation and Share of Long-Term Credit

(Rupees crore)

Year	Private Sector Capital Formation	Investment Credit	Proportion (%)
1980-81	2,843	1,335	47.0
1990-91	8,402	4,208	50.1
1998-99	19,311	13,264	68.7

Source: Pant Joshi (2003).

Table 4: Gross Value of Outputs, Value of Inputs and Short-Term Credit

(Rupees crore at 1993-94 prices)

Year	Gross Value of Outputs	Value of Inputs	Short-term Credit	Short-term Credit as Percentage to	
				Value of inputs	Value of outputs
1993-94	2,04,874	27,413	9,752	35.6	4.8
1996-97	2,32,833	30,735	13,330	43.4	5.7
1998-99	2,45,413	34,566	14,642	42.4	6.0

Source : Pant Joshi (2003).

Table 6 : Region-wise Ratio of Agricultural Credit to Net State Domestic Product (NSDP)

(Per cent)

Regions	1991-95 (Average)	1996-2001 (Average)
Northern	0.7	1.0
North-Eastern	0.2	0.2
Eastern	0.5	0.5
Central	0.7	1.0
Western	0.7	0.7
Southern	1.6	2.0
All India	0.9	1.0

Notes : 1. Agricultural credit relates to direct finance to agriculture and allied activities by all scheduled commercial banks (disbursements - Short term and Long term).
2. NSDP is at current prices.

Source: Reserve Bank of India and Economic Survey: Various Issues.

recent years after repeated droughts has been concentrated in the Southern region. Ironically, it is possible that this may have occurred as a consequence of the relative success of the agricultural credit effort in this region. All these issues need much greater research so that our continuing search for viable agricultural credit extension is informed by appropriate knowledge.

Non-Performing Assets

I started with the core issue of risk in agriculture and how that is a key determinant of all the problems encountered in agricultural lending. I would, therefore, briefly like to examine the record of non-performing assets (NPAs) in agriculture for commercial banks. Is the hesitation of banks to lend for agriculture really caused by the experience of a much higher level of NPAs? It is found that the proportion of NPAs are indeed higher for agriculture than they are for the non-

Table 7: Region-wise Share of Agriculture and Allied Sector Credit (Short Term and Long Term) Disbursements

(Per cent)

Region	1990-91	1995-96	2001-02
Northern	12.9	11.6	19.9
North-Eastern	0.4	0.4	0.5
Eastern	8.3	6.4	7.4
Central	16.9	16.4	14.1
Western	13.6	17.1	14.4
Southern	47.9	48	43.8
All-India	100	100	100

Note : Agricultural Credit relates to direct finance to agricultural and allied activities of all scheduled commercial banks (Disbursments - Short-term and Long- term).

Source: Reserve Bank of India.

Table 8: Region-wise Trends in Agricultural and Allied Sector Credit Per Capita

(Rupees)

Regions	1991-95	1996-2001
Northern	60	153
North-Eastern	9	17
Eastern	21	42
Central	36	86
Western	67	134
Southern	157	280
All India	67	128

Notes : 1. Ratios obtained by dividing the average direct finance to Agricultural and allied activities of all scheduled commercial banks (Disbursements – Short term and Long term) during the period 1991-95 and 1996-2001 by the total region-wise population in 1991 and 2001, respectively.
2. NSDP is at current prices.

Source : Reserve Bank of India and Economic Survey: Various Issues.

priority sector. However, they are not as high as those for small scale industries (SSI) and for other priority sectors. In fact, for private sector banks, agricultural NPAs are as low as 5 per cent of total outstanding advances to agriculture, and are lower than for the non priority sector (Table 9). In fact, it is likely that if public sector enterprises are excluded from the data for the non-priority sector, the performance of NPAs in agriculture may not be much higher than for lending to the non-priority sector private sector credit exposure as a whole. These data do suggest that agricultural lending may be more risky than non-priority sectors, but the difference is probably not large enough to warrant excessive caution in bank lending for agricultural purposes.

Table 9: Sector-wise Average Non-Performing Assets of Banks - (2001- 2003)

(Amounts in Rs Crore)

	Agriculture	Small Scale	Others	Total Priority Sector	Non-Priority Sector
Public Sector Banks					
Average NPAs	7,635	10,362	6,748	24,745	28,764
Average NPAs as a per cent of average outstanding advances	**12.0**	**20.6**	**12.2**	**14.2**	**9.4**
Private Sector Banks					
Average NPAs	433	1,249	593	2,275	9,271
Average NPAs as a per cent of average Outstanding advances	**5.1**	**15.9**	**5.3**	**8.1**	**10.2**

Note : NPAs and outstanding advances as on March 31.

Source : Report on Trend and Progress of Banking in India: Various Issues; Reserve Bank of India.

Summary

What have we learnt from this brief summary of the record of agricultural credit? First, after about 70 years of constant efforts, institutional credit is indeed reaching a substantial proportion of farmers. Second, with the share of agricultural GDP falling in total GDP, it is to be expected that the share of agricultural credit will go down as a proportion of total credit. But we do need to ensure that it does not fall as a share of agricultural GDP, and that it in fact intensifies. Third, what is needed is a better analysis by banks on where the risks are in the extension of agricultural credit, and to then find market-oriented solutions for mitigating such risks. Where the mitigation of such risk involves positive externalities and the promotion of public good, methods of appropriate government intervention would need to be identified and considered. Fourth, there is an urgent need for the adoption of the best modern techniques for risk management in agriculture, including a clearer distribution between risky and less risky borrowers. Fifth, banks need to adopt a more specialised approach as between different agricultural sectors and regions in order to achieve a better understanding of agricultural credit needs and risks on a disaggregated basis: which sectors and regions are more credit worthy and which less so? Which agricultural activities and regions are getting more credit and why? Business as usual and a blanket approach will no longer do. Sixth, there is an increasing need for allied activities and term lending, and hence a change in our traditional view of what constitutes agriculture and how it should be promoted.

It is to these issues that I now turn.

The Changing Face of Agriculture

Changes in the Demand for Food

The defining characteristic of the 1980s and 1990s has been the overall acceleration in economic growth of the country (Table 10). Whereas per capita annual income growth was only about 1.2 per cent for about 30 years until 1980 or so, growth has been accelerating in the 1980s and 1990s. With the perceptible fall in population growth in the 1990s a similar level of overall GDP growth implies still higher per capita income growth. The consequence is that Indian annual per capita income is now about US $ 500 which is pushing India into the group of middle income countries.

Table 10: Growth of Indian Economy (Annual Growth Rate)

(Per cent)

Year	GNP	Per Capita
1950-80	3.5	1.2
1980-90	5.7	3.4
1990-2000	5.8	3.6

Source: National Accounts Statistics: Central Statistical Organisation.

When annual per capita income growth is in the region of 1.2 per cent, it is barely palpable, even cumulatively over 10 years. When, however per capita income growth ascends to around 3.5 per cent per year, it starts becoming palpable on a cumulative basis and leads to perceptible shifts in the demand pattern. Although there is some dispute on the measurement of poverty, the official estimates of poverty, and of most academic analysts suggest that there has been substantial reduction in absolute poverty levels between the 1970s and late 1990s (Chart 5). With measured poverty having fallen to around 26 per cent, from the late 1970s levels of around 50 percent, the pattern of demand for food has been changing correspondingly.

The key observation to be made is that there has been a steep fall in the share of cereals in total household food expenditure over the last 30 years: from just under 60 per cent in the late 1960s to less than 40 per cent in the late 1990s in rural areas; and from over 35 per cent in the late 1960s to 25 per cent in the late 1990s in urban areas (Table 11).

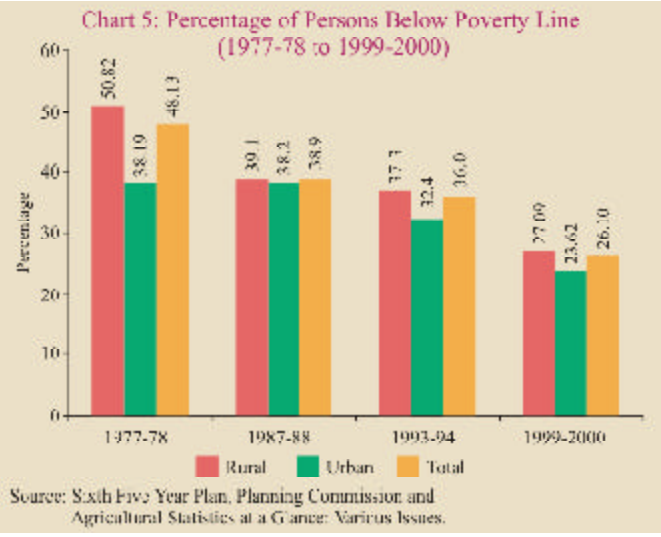


Table 11: Share of Cereals and Non-Cereal Items in Total Monthly Per-Capita Expenditure on Food: Rural and Urban Areas

(Per cent)

		1969-70	1987-88	1993-94	1999-2000
Rural	Cereals	56.0	41.0	38.3	37.3
	Non-Cereals	44.0	59.0	61.7	62.7
Urban	Cereals	36.6	26.5	25.7	25.7
	Non-Cereals	63.4	73.5	74.3	74.3

Source: Various NSS Rounds on Household Consumption Expenditure.

Moreover, there has been similar change in the household expenditure on food as a proportion of total expenditure in both rural and urban areas. In rural areas, the expenditure on non-food items has shot up from 26 per cent of the total in 1969-70 to 41 per cent in 1999-2000. In urban areas, this proportion has gone up from about 34 per cent to 52 per cent over the same period (Table 12).

Thus household expenditure on cereals has been shrinking as a proportion of total expenditure in the last 30-35 years, and this trend may be expected to continue in the years to come. It is quite clear that with progressive and continuous increases in income and poverty reduction, the Indian diet is gradually becoming more diversified. The composition of products in the supply of food will also have to reflect this with the passage of time. With acceleration in economic growth, this change will probably take place faster.

From a policy perspective, the key lesson from this change in demand pattern is that Indian agricultural policy will need to shift its almost exclusive attention from the production of foodgrains to the promotion of all the other food products. The quest for higher agricultural growth, and large accelerated economic growth in rural areas therefore requires a shift of policy attention to a much more diversified approach involving growth of production of products such as meat, fish, poultry, vegetables, fruits, and the like.

Table 12: Share of Food and Non-Food Items in Total Monthly Per-Capita Expenditure: Rural and Urban Areas

(Per cent)

		1969-70	1987-88	1993-94	1999-2000
Rural	Food	73.7	63.8	63.2	59.4
	Non-food	26.3	36.2	36.8	40.6
Urban	Food	65.7	55.9	54.7	48.1
	Non-food	34.3	44.1	45.3	51.9

Source: Various NSS Rounds on Household Consumption Expenditure.

Changes in the Supply Pattern of Food

India is already a very large producer of fruits and vegetables. It is ranked among the top five producers in a range of items such as bananas, mangoes, papayas and pineapples, among fruits; and brinjal, cabbage, cauliflower, peas, onions and potatoes, among vegetables. India is perhaps the second largest producer of both fruits and vegetables (Table 13).

As incomes increase and diet diversification takes place, the demand for fruits and vegetables will grow correspondingly and hence, we can expect huge changes to take place in the supply response to such emerging demand. The production growth in these items is likely to accelerate significantly if appropriate conditions are created for such expansion. Correspondingly, such expansion will give rise to huge possibilities for food processing. Although India is indeed a very large producer of fruits and vegetables, our productivity levels continue to be very low: Indian yields are significantly below the world average in vegetables (Table 14).

One successful example of policy attention in the non-foodgrains area is that of milk. Ever since the creation of the National Dairy Development Board (NDDB), the production of milk has increased tremendously, as has its distribution over most parts of the country. The production of milk increased from around 56 million tonnes in 1991-92 to about 80 million tonnes by 2000-01. This development took place only as a result of focussed attention to technology development, extension, provision of input supply, procurement, distribution and marketing, along with corresponding appropriate institutional development. The success achieved in both the acceleration of growth in foodgrains production since the early 1970s, and milk production later, owed much

Table 13: India's Position in World Production of Fruits and Vegetables

Crop	Rank	Crop	Rank
1	2	3	4
Apple	10	Brinjal	2
Banana	1	Cabbage	2
Mango	1	Cauliflower	1
Papaya	2	Peas	1
Pine apple	4	Onion	2
Grapes	10	Potato	3
Total Fruits	**2**	**Total Vegetables**	**2**
Coconut	3	Cashew	1

Source: Indian Horticulture Database - 2001.

Table 14: Yields in Vegetables: India and the World

(Quintals per hectare)

	1990	1995	2000	2002	2003
World	149	155	166	169	168
China	177	188	189	196	192
India	102	102	131	125	129

Note : Vegetables include melons.

Source: FAO Stat 2004.

to specific policy analysis and subsequent policy action accompanied with institutional development - including that of the provision of credit. The key innovation made by the NDDB was to find a way of expanding production by small producers located over different regions, while concentrating technology investment centrally and then extending it to the producers.

Just as research and development activities, and marketing were very important in the production and adaptation of high yielding seed varieties for wheat and rice, expanding milk production, productivity increases in other areas such as horticulture will also need similar intensity of investment in appropriate R&D, and special marketing efforts increasingly involving public/private partnership.

Elements of A New Approach

The changing demand pattern for food involves a reordering of priorities in organising appropriate matching supply responses. Besides promoting diversification, there is also a need for value addition in agricultural production for increasing rural employment and incomes. Interestingly, very significant changes are taking place in the agricultural sector in this regard. There are incipient signs of a much closer connection between primary producers, trade intermediaries, food processing entities, and the eventual marketing of value added products. With the share of unprocessed foods falling, the real growth area in the agricultural sector is in value added food products such as meat, poultry, fish, vegetables, fruits and the like. There is an accelerating move of consumers to basic processed foods such as atta, packaged milk, fresh poultry, soft drinks, processed meat and poultry, and the like.

Supporting policy changes and investment are required to facilitate agricultural diversification and value-addition. The task of the policy makers in designing an appropriate package of measures becomes more challenging considering the fact that the new growth areas of agriculture are characterised by a high degree of heterogeneity, unlike in the case of wheat, rice and milk. There is a multiplicity of varieties that can be produced in each of these product groups; production is often regionally concentrated; the production and marketing conditions differ significantly; and the input requirements are equally heterogeneous. Hence, policies and programmes that are to be designed to support higher productivity and production in these areas need to be much more regionally disaggregated and knowledge intensive.

In the new growth areas of agriculture, the importance of post harvest activities such as storage, transportation, processing and marketing of non-cereal products increases which leads to greater links between agricultural diversification and rural industrialisation. The success of this strategy would, however, depend crucially on developing adequate infrastructural and other support systems.

The monopoly of Government regulated wholesale markets has prevented development of a competitive marketing system in the country, providing no help to farmers in direct marketing, organised retailing, developing smooth raw material supply systems for agro-processing industries and the adoption of innovative marketing system and technologies. An efficient agricultural marketing system is essential for development of the agricultural sector as it provides outlets and incentives for increased production and the marketing system contributes greatly to the commercialisation of subsistence farmers. Worldwide, Governments have recognised the importance of liberalised agricultural markets. If the agricultural markets are to be developed in private and co-operative sectors and are to be provided a competitive environment *vis-à-vis* regulated markets, the existing framework of State Agricultural Produce Marketing Committee (APMC) Acts will have to undergo a change. In this context, the Model Agricultural Produce Marketing (Development & Regulation) Act, 2003 circulated in September 2003 acquires significance. Ten States have initiated legal or administrative action for direct marketing and 'contract farming' arrangements in line with the Model Act. Other states need to follow suit.

As mere policy reforms in these areas would be inadequate, corresponding investment in rural infrastructure is required for closer connection between the farmer and the market. The government has already launched an ambitious rural roads programme, namely the Prime Minister's Gram Sadak Yojana. As village connectivity is actually achieved through the

construction of rural roads, it will become possible to make other investments that are required for farm to market transfer of agricultural products. The experience of states like Tamil Nadu, Punjab, Haryana, Kerala and Goa, where rural connectivity through roads was achieved much earlier, suggests that such a programme is more successful when conducted in a decentralised framework.

Heavy investments need to be made in establishing cold chains across the country such as cold storage, transport facilities and the like. The kind of storage and transportation facilities required will differ from product to product and from region to region. It would be best accomplished in a decentralised private sector framework with appropriate policies and supportive financing facilities.

The banking system in India is, at present, geared more to financing the traditional crops like cereals. However, it needs to reorient itself to meet the changing requirements of commercialising agriculture. Credit requirements would go up due to purchased-input intensive and heterogeneous production cycles of the new areas of agriculture. This would also call for designing innovative schemes and products which recognise the differing nature of agri-business and supply chains for different products. Newer forms of credit assessment and risk management systems may also have to be put in place, besides upgrading skills and changes in attitudes and mind-sets. The rural credit system has been bypassed by the revolution in information technology. The banking system may also have to address the problem of 'financial dualism', characterised by faster modernisation of urban financial markets compared with their rural counterparts and the 'digital divide' which separates those using modern computers and communication technologies from those who do not. Financial dualism could result in large farmers, agri-business and rural industries obtaining financial services from modern urban financial institutions, while small and marginal farmers and landless laborers may have to depend on micro finance and personal savings. Information technology has to be used to facilitate transformation in various processes of rural credit. In this regard, it is suggested that each bank should form a special task force to look into the entire gamut of credit in the context of the agricultural transformation. The best results could be obtained if these task forces are staffed with enthusiastic young bankers with penchant for innovation.

Experience shows that the green revolution was largely aided by domestic and international research and extension efforts. While traditionally this has been concentrated exclusively in the Government, in these new areas of agriculture, measures need to be taken to encourage the private sector to invest in R&D and extension activities.

Several South-east and East-Asian countries, which adopted agricultural diversification and rural industrialisation as a strategy for rural development, have witnessed a move away from cereals to non-cereal production. This was spurred by the structural changes, which accompanied the long-term contraction of agriculture in the economy, the decline in the real prices of cereals following the success of green revolution, as also the changes in the consumption pattern due to rising incomes and urbanisation. Agricultural diversification has been seen as desirable response to these demand and supply changes and was explicitly incorporated into many countries' agricultural policies and rural development strategies (Goletti, 1999). Thus, fundamental changes in the diets of the population in Asian developing countries has been a major factor in the evolution of cereal supply and demand and agricultural diversification (Rosegrant and Hazell, 2001). Agro-based rural industries were recognised as providing not only high value products and income to the rural population but also employment to large rural non-farm population which could not be absorbed by the rapidly expanding industrial and services sector. This strategy was followed in several countries like Taiwan and Malaysia in sixties and Thailand, Philippines and Indonesia in the seventies and eighties.

The rapid transformation that has been observed in these areas in South East Asian countries in the last 20 years provides pointers to what can be expected in the years to come. One key area of change that has occurred is in the modernisation of retail grocery structures. Most cultures in a transitional phase attach great importance to personalised shopping for daily needs. The small corner stores are well distributed across towns and cities. The situation in East Asia was similar until the 1980s. However, tremendous change has taken place in retail grocery structures in these countries over the last 15 years. In Taiwan, for example, whereas only about 2 per cent of groceries were sold in modern retail formats such as super markets in the mid 1980s, this proportion has now shot up to more than 65 per cent. Similar change has taken place from

zero to 50 per cent over the same period in Thailand. Even in Indonesia, about 25 per cent of groceries are now bought in modern super markets. Modern retailing firms are much more efficient than traditional firms. Their costs can be as much as 20 per cent lower than in traditional firms. Contrary to popular perception, they actually generate greater employment. The economies of scale provide for greater variety in product stocks; they provide a demand pull factor from consumers to producers; and they help in reducing the difference between the retail and farm gate prices. Overall, they help in accelerating growth in the whole food chain thereby leading to higher agricultural growth and, more importantly, higher employment growth in the whole food chain from the farm, food processing, logistics, and retailing.

To sum up, the income and consumption changes, described above, have ushered in a new demand structure for rural products that has gone largely unnoticed. Traditional approaches to agriculture, which focussed on foodgrain production will only bring agricultural stagnation and employment distress in rural areas. The need of the hour is to promote agricultural diversification, encourage production of other food products, invest actively in rural infrastructure, and enable greater food processing and value addition to agricultural production, which would create new avenues for rural employment and income.

Conclusion

Agricultural credit has played a vital role in supporting agricultural production in India. The Green Revolution characterised by a greater use of inputs like fertilizers, seeds and other inputs, increased credit requirements which were provided by the agricultural financial institutions. Though the outreach and the amount of agricultural credit have increased over the years, several weaknesses have crept in which have affected the viability and sustainability of these institutions. Furthermore, antiquated legal framework and the outdated tenancy laws have hampered flow of credit and development of strong and efficient agricultural credit institutions.

A review of performance of agricultural credit in India reveals that though the overall flow of institutional credit has increased over the years, there are several gaps in the system like inadequate provision of credit to small and marginal farmers, paucity of medium and long-term lending and limited deposit mobilisation and heavy dependence on borrowed funds by major agricultural credit purveyors. These have major implications for agricultural development as also the well being of the farming community. Efforts are therefore required to address and rectify these issues.

Following the changes in the consumption and the dietary patterns from cereals to non-cereal products, a silent transformation is taking place in the rural areas calling for diversification in agricultural production and value addition processes in order to protect employment and incomes of the rural population. In the changed scenario, strong and viable agricultural financial institutions are needed to cater to the requirements of finance for building the necessary institutional and marketing infrastructure.

What is needed in agriculture now is a new mission mode akin to what was done in the 1970s with the Green Revolution. The difference is that then we concentrated countrywide on two relatively homogeneous products so that the countrywide strategy could also be similarly homogeneous. The approach was a package approach, which attempted to bring together technology inputs (focussed investment in new agricultural universities, regionally distributed, with complementary organisation of agricultural extension services) along with provision of infrastructure inputs like power at subsidised costs; arrangements for the supply of bought out inputs like seeds, fertilisers, tractors; and most importantly, corresponding arrangements for credit provision through the then recently nationalised banking system. This model has clearly delivered results in the sense that India has become self sufficient in food and we have effectively brought food security. However, the model has not changed much since then and various ills have resulted: the persistence of high fertiliser subsidies, power subsidies and minimum support prices that may now act as a disincentive for crop diversification. We, therefore, need a major review of agriculture policy to meet the changing needs of both producers and consumers.

The difference now is that we need initiatives in a disaggregated manner in many different segments of agriculture and agro industry: horticulture, aquaculture, pisciculture, dairying, sericulture, poultry, vegetables, meat, food processing, other agro-processing and the like.

So what we need to do is to initiate a nationwide major mission programme for different activities, regionally disaggregated, in a similar package mode. The packages will have to be different for each activity and location. To begin with, expert teams will have to be formed for each agro climate zone focussing on the relevant activities there. These teams can then design the package that needs to be put together in each place. The basic ingredients of each package can be similar: provision of technology inputs, infrastructure, extension services, arrangements for the supply of inputs and the corresponding credit model. A key difference in approach would have to be the much greater involvement of region specific market participants, and of private sector suppliers in all these activities, and credit suppliers ranging from public sector banks, cooperative banks, the new private sector banks and micro-credit suppliers, specially self help groups.

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