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Agricultural Credit and Indebtedness in India: Some Issues

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In almost all the models of growth and development, capital accumulation is pivotal because it raises the productive capacity of the sector in which it takes place. The capital accumulation depends on the rate of investment, which in turn depends on the rate of savings. The financial institutions play a dominant role in mobilising savings and then channelising those savings for investments into productive economic activities. Therefore, the role of financial institutions is crucial in the development of any sector and agriculture is no exception to it. Rather the development of agriculture sector is more dependent on banking sector because 80 per cent of the farmers are small and marginal farmers, who are unable to save and invest due to their low levels of income. Further, about 70 per cent of the population in India lives in rural areas contributing about 24.2 per cent to gross domestic product (GDP) and forms the largest consuming market leading to income and employment generation through multiplier effects. Banking sector helps in the monetisation of the rural economy, which is useful in achieving the multiplier effect to the maximum benefit. Agriculture sector is the most crucial sector of the Indian economy because the main objectives of economic policy of output growth, price stability and poverty alleviation are best sub-served in this sector. There is thus a need to increase the credit flow to agriculture, raise productive capacity of land and enhance the potential of water resources as well its use efficiency for agricultural development.

A tremendous increase in the production of foodgrains has been witnessed from 82 million tonnes in 1960-61 to 212 million tonnes in 2003-04. This growth was made possible by the adoption of high yielding varieties especially wheat and rice crops, expansion in irrigation, higher use of modern inputs and development of infrastructure and institutions like power, village roads, agricultural market infrastructure, minimum support price policy and institutional agricultural credit. Agricultural credit in itself is not an input but it helps in creating environment for the adoption of modern production technology and encouraging private investments on the farms. Recognising the importance of credit, the National Agricultural Policy adopted in July 2000 envisages a growth of 4.0 per cent of agriculture to achieve 8 per cent economic growth of the country and emphasises adequate and timely supply

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of institutional credit to farmers. The agricultural credit institutions will therefore have to gear up to meet this challenge. The Government of India has recently announced the target of doubling the flow of institutional agricultural credit in next three years. It has been noted that though the institutional agricultural credit has increased on an overall basis but its growth is not equally spread in all the regions of the country. The developed regions had greater access to credit as compared to less developed regions (Dadibhavi, 1988; Giri and Dasgupta, 1988; Haque and Verma, 1988). Similarly, the dependence of small and marginal farmers is still very high on non-institutional sources. The transaction costs of borrowing from formal institutions to the borrowers are high due to complicated lending procedures, required documentation and tangible loan collaterals while such costs are less in non-institutional sources due to flexibility in lending, no requirement for documentation and loan security. Even from the lenders' point of view, the transactions cost of agricultural lending is considered to be high due to heavy overheads and large number of small loans. Further, the rural financial institutions are reeling under the problem of poor recovery due to variability in agricultural incomes, low incomes of small holders and expectation of waiver of loans causing willful default, multiplicity of lending agencies, etc. In recent years, many parts of the country are facing the problem of suicides of farmers associated with increasing indebtedness in the rural sector (Gill, 2005) due to deceleration in agricultural production, productivity and incomes (Chand, 2005; Sidhu and Johl, 2002). In this context, it becomes important to examine the growth and distributional aspects of institutional agricultural credit over time, its role in promoting use of modern production inputs and private capital formation and analysing its shortcomings and weaknesses in not meeting the objectives of agricultural credit policy of equity, adequacy, cost effectiveness, low prices and playing pro-active role in increasing agriculture production. The problem of indebtedness and suicides in the rural sector and reasons thereof also needs to be investigated in order to suggest some policy measures to tackle these grave issues. This paper tries to explore the issues of growth of institutional agricultural credit in India, its distribution in different regions and accessibility of credit to rural poor especially small and marginal farmers and economic viability of the operations of agricultural credit disbursement in terms of recovery performance and margins. The degree of indebtedness and factors causing indebtedness and suicides was also studied in Punjab, Andhra Pradesh, Maharashtra, Tamil Nadu and other states.

GROWTH OF INSTITUTIONAL AGRICULTURAL CREDIT

Many policy changes have taken place since 1960, when the agricultural credit scenario was largely dominated by private informal sources of credit, to increase the flow of institutional credit to the agriculture sector. The co-operative credit structure was strengthened by reorganising and merging weak credit societies with strong societies. The number of village level co-operative societies also increased. Presently, more than 92,000 primary agricultural co-operative credit societies are working in

villages. The participation of scheduled commercial banks (SCBs) was negligible in agricultural loans. However, after the nationalisation of commercial banks (CBs) in 1969, they were mandated to increase their geographical and functional presence in the rural areas. Consequently, the number of rural branches of CBs increased from just 1833 in 1969 to 32,121 in 2004. Another credit institution lending exclusively to weaker sections of the rural areas, known as Regional Rural Banks, was set up in 1975. To meet the challenges of institutional agricultural credit, both short-term and long-term, the apex institution namely National Bank for Agriculture and Rural Development (NABARD) was created in July 1982. To increase the flow of agricultural credit, new approaches were also initiated like Service Area Approach, micro finance and Kisan Credit Cards. There is now a very strong network of rural and semi-urban branches catering to the requirements of agriculture sector and rural areas. The growth of agricultural advances has also been significant over the years. The direct agricultural advances increased from Rs. 3,436 crores in 1980-81 to Rs. 38,128 crores in 2000-01 at an annual growth rate of 13.05 per cent. If we compare the growth of agricultural credit in real terms since 1980s, it was noted that the growth was very high in the period of 1980-81 to 1989-90, when green revolution technology was at full bloom. The new technology was widely adopted and capital investments on developing irrigation structures, development of land and farm machinery were made to realise the full potential of new high-yielding technology. However, during the period of deceleration in growth of agriculture, the growth in institutional credit also slowed down significantly from around 10.6 per cent in the earlier period to 6.8 per cent in the later period (Table 1). The agricultural advances at 1990-91 prices increased from Rs. 4,361 crores in 1980-81 to Rs. 10,686 crores in 1989-90 and further to Rs. 17,762 crores in 2000-01.

TABLE 1. GROWTH OF DIRECT INSTITUTIONAL AGRICULTURAL CREDIT IN INDIA
(Rs. crores)

Year (1)	Short term (2)	Long term (3)	Total at current prices (4)	At 1990-91 prices	
				Total (5)	Per ha GCA (6)
1980-81	2,047 (59.6)	1,388.8 (40.4)	3,435.8 (100.0)	4,361	253
1985-86	4,529 (63.3)	2,629.4 (36.7)	7,158.4 (100.0)	7,864	441
1989-90	6,499 (61.2)	4,128.9 (38.8)	10,627.9 (100.0)	10,686	586
1994-95	11,932 (63.6)	6,840.8 (36.4)	18,772.8 (100.0)	11,399	606
1999-2000	23,694 (65.9)	12,276.3 (34.1)	35,970.3 (100.0)	17,505	923
2000-2001	26,421 (69.3)	11,706.6 (30.7)	38,127.6 (100.0)	17,762	935
CGR (per cent)					
Overall	13.05	11.89	12.63	6.57	6.00
1980-81 to 1989-90	13.10	13.78	13.35	10.56	10.15
1989-90 to 2000-01	15.87	12.40	14.59	6.76	6.30

Source: *Handbook of Statistics on the Indian Economy, 2004-05*, RBI, Mumbai.

GCA refers to gross cropped area.

Figure in parentheses indicate percentage to the total.

A target of 18 per cent of net bank credit has been set for lending to agriculture sector for SCBs. Despite significant growth in agricultural advances, only 5 SCBs have achieved this target showing that still greater effort for increasing agricultural credit is required from SCBs (Reserve Bank of India, 1991). Yet, SCBs have given many reasons for this shortfall in target like faster growth in bank credit in other sectors, poor uptake of credit due to drought in many states, low capital formation in agriculture and low recovery in north-eastern states (Reserve Bank of India, 2004).

STATE-WISE DISTRIBUTION OF INSTITUTIONAL CREDIT

Another issue which is strongly associated with the growth is the distribution of agricultural credit among different states and regions of the country. There are wide variations in the availability of institutional credit per ha of gross cropped area in different states. The flow was as high as Rs. 6,235 in Kerala, Rs. 5,502 in Tamil Nadu, Rs. 3,806 in Punjab and Rs 3428 in Andhra Pradesh while it was as low as Rs. 873 in Uttar Pradesh, Rs. 432 in West Bengal and only Rs. 155 in Bihar in 1999-2000 (Table 2). The accessibility to institutional credit is higher in the southern region while it is very poor in the north-eastern region. Secondly, it is highly related with the level of agricultural development. Similar results were reported in the studies conducted earlier during the 1980s (Rao, 1994). It is a kind of vicious cycle operating in less developed states. Less availability of credit influences adversely the adoption of modern technology and private capital investments, which in turn lowers the productive capacity of the agricultural sector and results in lower productivity and production and also pushes the farmers to borrow from non-institutional sources. Consequently, the demand for agricultural credit for short and long term purposes is dampened.

The annual increase in the availability of credit also varied widely across states. It was only 3 per cent in Orissa whereas it was 47.5 per cent in Punjab from 1990-91 to 2001-02 accentuating the disparity in agricultural credit further in favour of irrigated, technologically advanced and agriculturally more developed regions. The largest increase occurred in the northern region while the smallest in central region comprising Uttar Pradesh and Madhya Pradesh states. The distribution of institutional credit on the basis of area was highly skewed in favour of the southern region as against the central and north-eastern regions. The southern states with only 19 per cent of the gross cropped area of the country accessed about 44 per cent of the total disbursements at all India level in 2001-02. The central states accounted for 27 per cent of the area and obtained only 14 per cent share of the total disbursements. Further, the share of the central region in the total credit declined over time making the distribution more skewed. The proportional share of Madhya Pradesh, Orissa and Bihar in the total credit was much lower than their respective shares in gross cropped area. Similarly, the share of Rajasthan was lower than its share in area. On the other hand, the share of Tamil Nadu, Kerala, Andhra Pradesh, Punjab, Karnataka and Gujarat in

institutional agricultural credit was higher than their respective shares in gross cropped area. The skewness in distribution of credit after NEP has slightly declined with respect to southern region and availability has improved for the western and central regions. However, the proportional availability has fallen for the eastern region.

TABLE 2. DISTRIBUTION OF FLOW OF INSTITUTIONAL AGRICULTURAL CREDIT IN DIFFERENT STATES OF INDIA

Region/states (1)	1990-91		2001-02		Annual increase (per cent) (6)	Percentage GCA (1998-99) (7)	Rs./ha of GCA		Annual increase (per cent) (10)
	Rs. crores (2)	Per cent (3)	Rs. crores (4)	Per cent (5)			1990-91 (8)	2001-02 (9)	
Northern	1314	12.9	8236	19.9	43.9	20.25	377	2132	38.9
Punjab	642	6.3	4304	10.4	47.5	4.22	856	5352	43.8
Haryana	285	2.8	1821	4.4	44.9	3.22	482	2964	42.9
Rajasthan	326	3.2	1490	3.6	29.7	11.7	168	667	24.7
Himachal Pradesh	20	0.2	248	0.6	93.2	0.51	207	2555	94.5
Jammu and Kashmir	20	0.2	83	0.2	25.5	0.57	191	764	25.0
North-Eastern	41	0.4	207	0.5	34.0	2.90	96	374	31.4
Assam	20	0.2	124	0.3	42.4	2.09	54	311	39.9
Eastern	846	8.3	3062	7.4	21.8	14.71	463	1092	22.8
Orissa	306	3	414	1	3.0	4.53	319	479	4.2
West Bengal	285	2.8	1573	3.8	37.6	4.83	329	1708	34.9
Bihar+									
Jharkhand	245	2.4	1076	2.6	28.3	5.25	233	1075	30.1
Central	1722	16.9	5835	14.1	19.9	27.57	349	1110	18.2
Madhya Pradesh + Chattisgarh Uttar Pradesh + Uttanchal	764	7.5	1821	4.4	11.5	13.67	320	698	9.9
Uttanchal	958	9.4	4056	9.8	27.0	13.90	376	1529	25.6
Western	1386	13.6	5959	14.4	27.5	7.06	430	1831	27.4
Gujarat	520	5.1	2980	7.2	39.5	5.56	501	2809	38.3
Maharashtra	846	8.3	2938	7.1	20.6	11.40	387	1352	20.8
Southern	4880	47.9	18127	43.8	22.6	17.51	1410	5426	23.8
Andhra Pradesh	1477	14.5	5587	13.5	23.2	6.36	1120	4604	25.9
Karnataka	642	6.3	4014	9.7	43.8	6.13	546	3432	44.1
Kerala	835	8.2	2276	5.5	14.4	1.56	2766	7666	14.8
Tamil Nadu	1895	18.6	6166	14.9	18.8	3.44	2857	9403	19.1
All-India	10188	100	41385	100	25.5	100.00	549	2169	24.6

Source: Report of the Advisory Committee on Flow of Credit to Agriculture and Related Activities from the Banking System, RBI, Mumbai, 2004.

GCA refers to gross cropped area.

Role of Institutional Agriculture Credit in Modern Technology and Capital Formation

When the country faced the problem of food shortages in the early sixties, agricultural public policy aimed at increasing productivity and production of foodgrains to meet this challenge. The introduction of dwarf wheat and rice varieties, which were highly responsive to use of fertilisers and irrigation, fortunately coincided with this period. The farmers were hesitant to adopt modern technology, which was new and untested, on their fields. Secondly, their levels of income were low due to low productivity of crops. Therefore, agricultural credit policy aimed at increasing the flow of institutional credit at reasonable rates of interest to the agriculture sector. The policy measures adopted included strengthening of the co-operatives, nationalisation of scheduled commercial banks, fixing targets for lending to agriculture, launching new schemes like service area approach and lead bank scheme, creation of Regional Rural Banks and apex national level bank namely, National Bank for Agriculture and Rural Development (NABARD). Apart from public capital formation especially on the major and medium irrigation projects, the growth in private capital formation on minor irrigation facilities, farm machinery and other farm equipment was facilitated by long term lending by the formal financial institutions. It was noted that the relationship of short term advances by the credit institutions with purchased inputs like chemical fertilisers, pesticides, irrigation charges and electricity and diesel was very strong (Table 3). The growth in short term advances facilitated the adoption of modern technology and as the short term advances grew over time the use of chemical fertilisers, pesticides and other variable production inputs also grew. It was a two-way relationship. Short term loans helped use of modern production inputs which in turn created demand for short term capital and thus the demand for short term institutional loans went up.

Though the rate of growth of short term advances remained higher than the expenditure on current (variable) inputs during all the periods but it was lower than the growth in demand for purchased inputs during the immediate green revolution period of 1970-71 to 1979-80. Consequently, the share of short term advances to the expenditure on purchased inputs like fertilisers, pesticides, irrigation, electricity and diesel fell from 74.5 per cent in TE 1973 to only 50.7 per cent in TE 1983. In the eighties the share continued to vary but was the lowest at 43.8 per cent in TE 1993. Due to emphasis on institutional agricultural credit in the post-economic reform periods, when a minimum of 18 per cent target lending to agriculture sector of total credit was assigned to all SCBs, the institutional agricultural advances picked up and constituted between 65 to 72 per cent of the expenditure on purchased inputs. The demand for purchased inputs has also slowed down during this period due to deceleration in productivity and many developed regions like Punjab and Haryana already attained very high levels of use of these inputs. The share of short term credit to total variable inputs hovered around 39 per cent since the mid-nineties.

TABLE 3. GROWTH AND SHARE OF SHORT TERM LOANS (ST) IN PRODUCTION INPUTS IN INDIA

Period (1)	ST credit (2)	Current inputs (3)	Purchased inputs (4)	<i>(Rs. crores at current prices)</i>	
				ST/ Current inputs (per cent) (5)	ST/Purchased inputs (per cent) (6)
TE 1973	673	2,035	903	33.1	74.5
TE 1983	2,515	8,245	4,964	30.5	50.7
TE 1988	4,852	13,304	8,494	36.5	57.1
TE 1993	6,752	24,681	15,429	27.4	43.8
TE1998	16,955	43,916	23,491	38.6	72.2
TE 1999	18,734	47,923	26,906	39.1	69.6
TE 2000	20,979	53,470	31,088	39.2	67.5
TE 2001	23,575	60,212	36,392	39.2	64.8
CGR (per cent)					
1970-71-1979-80	14.43	13.64	18.21		
1980-81-1989-90	13.47	11.57	12.62		
1990-91-2000-01	15.87	12.12	11.41		
1970-71-2000-01	13.25	12.5	13.36		
Correlation coefficients with ST credit					
1970-71-1979-80	1.00	0.951	0.956		
1980-81-1989-90	1.00	0.984	0.98		
1990-91-2000-01	1.00	0.994	0.962		
1970-71-2000-01	1.00	0.992	0.984		

Sources: 1. *Handbook of Statistics on the Indian Economy, 2004-05*, RBI, Mumbai.

2. CSO data on inputs use and value added in agriculture.

Purchased inputs include fertilisers, pesticides, electricity, irrigation, diesel costs. Current inputs include purchased inputs, seeds, manures, current repairs and maintenance, marketing charges, etc.

The correlation coefficient of short term advances with variable production inputs and purchased inputs was very high in all the periods but in the post green revolution period of the 1980s when the modern technology was widely adopted on the farms, it was the highest with purchased inputs. During the post-economic reform (including financial sector reforms) period, when the deceleration of agricultural growth set in, this relationship slightly weakened. The responsiveness of use of modern production inputs to institutional credit was also examined by fitting linear regression models with short term advances as the independent variable and current inputs and purchased inputs as dependent variables separately (Table 4). It was noted that one rupee increase in short term advances resulted in Rs. 1.49 increase in expenditure on purchased inputs and Rs. 2.5 increase in current inputs. The elasticity of use of inputs to agricultural credit was close to unity indicating the strong contribution of institutional agricultural credit in promoting modern production technology for increasing productivity and production. The elasticity of fertiliser use with respect to short term agricultural advances was the highest. Further, the elasticity of output to fertilisers use was estimated between 0.134 in Orissa and 0.70 in Tamil Nadu indicating its importance in increasing agricultural production in different states of the country (Government of India, 2005).

TABLE 4. EFFECT OF SHORT TERM INSTITUTIONAL CREDIT ON USE OF PRODUCTION INPUTS IN INDIA, 1980-81 TO 2000-01

Dependent variable (1)	(Rs.)	
	Regression coefficient (2)	Elasticity (3)
Current (Variable) inputs	2.525	0.898
Fertiliser	0.835	0.933
Pesticides	0.039	0.558
Fertilisers + pesticides	0.873	0.906
Purchased inputs	1.487	0.892

The growth of long term advances to agriculture sector has been very high over time, which has greatly helped in private capital investments on irrigation and land development, farm machinery, livestock, etc. Private investments being lumpy in nature and requiring heavy expenditure are generally financed by the institutional sources. Table 5 shows the growth in gross private capital formation and long term advances and their relationship in India. It was seen that the long term agricultural credit increased at a faster rate than rate of growth of private capital formation during 1970s and 1980s. Therefore, the share of credit in capital formation increased from 37 per cent in triennium ending (TE) 1973 to 77 per cent in TE 1988. However, during the decade of the nineties, the growth in long-term advances was little lower than the growth in private capital formation resulting fall in the share of institutional credit to private investments to 54 per cent in TE 2001. Overall, the growth in long term advances slowed down over time leading to lower growth in private investments. The decline in public investments may also have caused fall in private investments due to their positive relationship.

TABLE 5. SHARE AND CONTRIBUTION OF LONG TERM (LT) CREDIT IN PRIVATE CAPITAL FORMATION IN AGRICULTURE IN INDIA

Period (1)	Long-term credit (2)	Private GCF (3)	Share of credit (per cent) (4)
TE 1973	267	725	37
TE 1983	1,513	2,306	66
TE 1988	3,173	4,148	77
TE 1993	4,554	9,467	48
TE 2001	12,023	22,261	54
CGR (per cent)			
1970-71-1979-80	19.07	17.31	
1979-80-1989-90	14.29	10.85	
1989-90-2000-01	12.40	12.81	
Correlation coefficient of long-term credit with Private GCF			
1970-71-1979-80		0.980	
1979-80-1989-90		0.951	
1989-90-2000-01		0.967	
Contribution of long-term credit to Private GCF			
Regression Coefficient		1.84	
Elasticity		1.01	

Sources: 1. *Handbook of Statistics on the Indian Economy*, 2004-05, RBI, Mumbai.

2. *Agricultural Statistics at a Glance*, Ministry of Agriculture, Government of India, New Delhi.

The relationship of long term advances with private capital formation was very strong in all the periods (correlation coefficient being higher than 0.95) but during the 1980s and 1990s, it slightly weakened as compared to the 1970s. The regression coefficient between long term loans as an independent variable and private capital formation as dependent variable was as high as 1.84 and elasticity 1.01, which indicated the contribution of long-term institutional loans in promoting capital investments on the farms enhancing their productive capacity. The contribution of credit in output growth was found to be significant by Chand and Kumar (2004). In the phase of declining public investments in agriculture, it was the private investments facilitated by the institutional loans, which did not allow the agriculture sector to slip to the era of negative growth. The private capital investments on irrigation helped raising agricultural production as the impact of irrigation is very strong on agricultural productivity and production (Rao, 1994; Rao *et al.*, 1988; Vaidyanathan, 1991; Dhawan, 1993). Similarly, farm machinery helped raising multiple crops and obtaining higher production on per unit area basis. The Punjab state represents the case of role of farm mechanisation including tractorisation and private tubewell irrigation, which encouraged multiple cropping, precision in farm operations, bringing larger area under high-yielding varieties and higher use of modern production inputs, all of which put agriculture sector of the state on high-growth path (Sidhu *et al.*, 1998; Bhalla, 1993; Sidhu and Grewal, 1991).

SOME POLICY ISSUES

The institutional agricultural credit has grown significantly over time encouraging adoption of modern production technology and private capital formation on farms to enhance their productive potential. It helped raising agricultural productivity and production in different states and the country as a whole. Yet, the institutional agricultural credit delivery system is faced with some problems, which restrict its outreach to different areas and sections of farming classes as well as are hindering its growth and contribution towards agricultural growth to the optimum levels. We have tried to discuss these issues here which require adequate policy attention.

(1) *Transaction Costs of Agricultural Credit*

Two issues are involved in agricultural lending in India. The banking sector has to cater to a very large number of small borrowers spread over a very large area. Secondly, size of the loan is very small. The small and marginal farmers constitute more than 80 per cent of the farmers and some of the areas in India are located in remote places and catering to their requirements becomes very difficult and costly. From the borrowers' point of view, access to institutional credit especially for small, resource poor and illiterate farmers gets inhibited as the procedural and

documentation requirements are cumbersome and time consuming and raise the cost of borrowing for the farmers. On the other hand, access to non-institutional agricultural credit is regarded to be very simple where transaction cost is negligible and involve no procedural complications. Some of the empirical studies have brought out this fact (Table 6). The transaction cost in case of non-institutional loans was negligible whereas it was quite high in the case of institutional loans. In case of CBs they ranged between 3 and 5 per cent per annum while in case of co-operatives they were lower than 3 per cent. The transaction cost was the highest in case of RRBs due to small size of the loans.

TABLE 6. TRANSACTION COST OF BORROWINGS FOR AGRICULTURAL CREDIT FROM DIFFERENT SOURCES IN INDIA

Author(s) (1)	State (2)	Period (3)	Area/Farm category (4)	Type of Institution (5)	Transaction cost (per cent of loan) (6)	Effective Rate of Interest (per cent) (7)
Reddy	Andhra Pradesh	1992	Developed	Informal	Neg.	22.13
			Backward	Informal	Neg.	43.13
Singh and Mruthyunjaya	Uttar Pradesh	1990	Aligarh district	Coop.	2.69	N.A.
				RRBs	8.58	N.A.
				Non-inst.	Nil	N.A.
Rao, N.	Andhra Pradesh	1989	-	Formal	5.71	17.68
Sanjeeva <i>et al.</i>				Non-Inst.	0.48	23.35
Dandekar	Andhra Pradesh	1987	Small farmers	Institutional	2.71	13.71
			Medium	Institutional	2.61	13.61
			Other farmers	Institutional	2.82	13.82
			Small	Non-Inst.	Nil	23
			Medium	Non-Inst.	Nil	21.4
			Other	Non-Inst.	Nil	24.7
Srivastava and Kumar	Not known	1985	-	SCB: 3-5 yrs	4.96	N.A.
				SCB: 5-7 yrs	3.29	N.A.
				Coop: 5 yrs	1.8	N.A.
				Coop: 7 yrs	1.41	N.A.
				Moneylender	Nil	N.A.

2. Loan Overdues

Economic viability is a major issue in case of rural financial institutions as the range of services provided by them is limited and institutions generally are regarded as the providers of loans only. Secondly, the recovery of the loans in the agricultural sector is poor. Empirical studies have suggested many reasons for high rate of loan defaults in the agriculture sector. Low level of income generation especially on small sized farms, diversion of loans to unproductive purposes, inadequacy of the loans leading to their diversion and willful default under the hope of their waiver are estimated to be the important ones. Besides high rate of loan default, which was estimated to be 37 per cent ending March, 2000, the recovery performance varies greatly across regions/states and financial institutions. It can be seen from Table 7

TABLE 7. AGRICULTURAL CREDIT, RECOVERY AND PRODUCTIVITY OF FOODGRAINS IN DIFFERENT STATES OF INDIA

State (1)	Credit use in 1999-2000 (Rs./ha of NSA) (2)	Average recovery as on June 1999 (per cent) (3)	Foodgrains productivity in 1998-99 (kg/ha) (4)	Net irrigated area in 1996-97 (per cent to NSA) (5)
Northern				
Punjab	10786	88	3741	93
Haryana	8611	80	2700	76
Rajasthan	1167	74	961	33
Himachal Pradesh	2839	62	1766	19
Jammu and Kashmir	438	32	1729	43
North-Eastern				
Assam	276.4	10	1288	21
Manipur	115	11	2708	46
Meghalaya	328	36	1411	21
Nagaland	316	9	1338	28
Tripura	481	32	1893	13
Arunachal Pradesh	132	29	1038	19
Mizoram	338	51	1682	6
Eastern				
Bihar	572	26	1441	49
Orissa	1269	45	1080	35
West Bengal	1734	61	2198	35
Central				
Madhya Pradesh	1104	61	1113	32
Uttar Pradesh	2172	66	1957	69
Western				
Gujarat	2887	74	1426	32
Maharashtra	2363	61	974	14
Southern				
Andhra Pradesh	5253	66	2003	41
Karnataka	3253	62	1352	22
Kerala	9948	83	1768	16
Tamil Nadu	7640	70	2278	53
Correlation coefficient				
Credit	1.00	0.75	0.63	0.53
Recovery	0.75	1.00	0.30	0.34
Foodgrain production	0.63	0.30	1.00	0.72
Reg. Coeff.		84.51	2.17	0.46
Std. deviation		17.47	0.85	26.86
R2		0.73	-	-
F-value		17.35	-	-

Source: Report of the Expert Committee on Rural Credit, NABARD, Mumbai, 2001.

Dependent variable: Credit use/ha of Net Sown Area (NSA); Constant = -5365.4.

that the rate of recovery was very high in the relatively developed states like Punjab, Kerala, Haryana and Tamil Nadu, where it was greater than 80 per cent. It was in the range of 60-80 per cent in Andhra Pradesh, Gujarat, Karnataka, Maharashtra, Rajasthan, Madhya Pradesh and Uttar Pradesh. It was very poor in eastern and north-eastern states except West Bengal. There is one good feature that where the use of institutional credit was higher the recovery performance was also better. The correlation coefficient between per ha use of credit and rate of recovery was 0.75.

The use of institutional credit has also had significantly positive association with productivity of foodgrains and irrigated area. Yet, the correlation coefficient of recovery with foodgrains productivity was not high because the southern states like Karnataka, Kerala, Gujarat, Maharashtra, where the recovery performance was good, do not grow foodgrains significantly. The production is largely dominated by cotton, sugarcane and plantations. If we take a look on the recovery performance and the productivity of major foodgrain growing states like Punjab, Haryana, Bihar, Orissa, Uttar Pradesh, Madhya Pradesh, Andhra Pradesh and Tamil Nadu, it can be noticed that the rate of recovery was very high in Punjab, Haryana, Andhra Pradesh and Tamil Nadu, where foodgrain productivity was also high while on the other hand, in the states like Bihar and Orissa, the productivity as well as recovery performance was poor. The only exception was Madhya Pradesh, where the recovery performance was at par with all India average despite low productivity.

The use of institutional credit (in terms of per ha credit across different states) was also estimated to have been significantly influenced by foodgrains productivity and rate of recovery by using simple single equation regression model. The productivity reflected higher use of modern inputs requiring larger funds and recovery performance reflected the ability of the farmers to obtain credit as well as financial health of the rural institutions to fund short and long term credit needs of the farmers.

3. Economic Viability of Rural Credit Institutions

Agricultural loans were considered to be economically unviable by rural financial institutions due to low rates of interest on them in the pre-reform period. To promote new technology, the policy of cheap agriculture credit was followed in India. Gulati and Katula (1992) observed that agricultural loans were subsidised due to low rate of interest on one hand and high risk and transaction cost on the other. High per unit cost of service in case of agricultural loans was due to heavy overhead costs, large number of small borrowers and higher risk cost. The lending (transaction) cost was estimated to be 6.78 per cent on production and investment credit at all India level whereas the interest margin varied between 2.55 and 5.93 per cent in 1980-81. The average interest income from agriculture for PACS, CBs, primary land development banks and RRBs taken together was lower than the total cost of lending during 1983-84 to 1985-86 for Andhra Pradesh, Tamil Nadu, Kerala, Maharashtra, Haryana, Assam, Uttar Pradesh and Orissa.

The interest rate structure started undergoing changes after the financial sector reforms of 1991 in order to improve the economic viability of rural credit and provide more flexibility to the banking institutions to decide the interest rate structure for different sectors including the agriculture sector. The interest rates were further rationalised after the exchange rate mechanism was made more flexible and foreign capital was allowed in the Indian economy. In recent years, the pyramid of interest rates for different sectors of the economy has been reversed. The rate of interest on

agricultural loans is higher than some of the loan categories like housing loans. Yet, the economic viability of the rural financial institutions is not good due to high transaction (lending) and risk cost. It was noted that the net margins (as per cent of working capital) in the case of District Central Co-operative Banks was negative at all-India level while the economic position of RRBs has improved (Table 8). The co-operative loans have become more costly due to some margins getting added at every level of its three-tier structure. Only recently, the agricultural loans of less than Rs.50,000 are made accessible at 9 per cent rate of interest, which may further lower down the net margins. But, the Expert Committee on increasing flow of agriculture credit estimated that a 2 per cent reduction in the rate of interest on agricultural loans will reduce the net margins of commercial banks only by 0.14 per cent.

TABLE 8. AGGREGATE MARGINS AVAILABLE TO BANKS IN INDIA

Agency (1)	<i>(per cent of working capital)</i>				
	Financial margin (2)	Total transaction cost (3)	Risk cost (4)	Miscellaneous income (5)	Net margin (6)
CBs (2002-03)	2.91	2.24	1.35	1.66	0.98
RRBs (2002-03)	3.48	2.98	0.34	0.76	0.92
DCCBs (2001-02)	2.99	1.69	1.91	0.60	(-0.01)

Source: Report of the Advisory Committee on Flow of Credit to Agriculture and Related Activities from the Banking System, 2004.

Financial margin= Financial returns minus financial cost of funds.

4. Access to Institutional Credit of Small Farmers

The small and marginal farmers constitute 80 per cent of the operational holdings and cultivate about 36 per cent of the area in India. Their number is expected to increase in future due to sub-division of holdings and lack of employment opportunities in the non-farm sector. Due to their small holdings, they are disadvantageously placed with respect to access to technology, capital, credit and other institutional support. The information on distribution of institutional agriculture credit suggests that their access to credit to meet their short term and long term capital requirements has not improved over time (Table 9). Yet, the high share of small holders in institutional loans can be attributed to target lending to them and higher share of southern states in total advances where the proportion of small holdings is very high. Some medium and large farmers also obtain sizeable loans in the name of small holders.

TABLE 9. ACCESS OF SMALL HOLDERS (FARM SIZE LESS THAN 2 HA) TO INSTITUTIONAL CREDIT IN INDIA

Year (1)	<i>(per cent)</i>		
	(2)	Area operated (3)	Amount (4)
1985	Total	26.3	42.6
1996-97	Short term	36.0	61.0
	Long term		31.0

Source: Desai, 1988 and NABARD, 2001.

There are some disquieting features of lending to small borrowers. The number of small borrower accounts in case of commercial banks has come down over time (NABARD, 2001) indicating shifting of their focus to large borrowers. The rate of growth in agricultural advances to small and marginal farmers of less than 5 acres farm size by scheduled commercial banks in the 1990s has come down as compared to other farm size categories due to which their share declined from 54 per cent in TE 1993 to 51 per cent of total agricultural credit in TE 2002 (Table 10). The All India Debt and Investment Survey (AIDIS) showed that rural households with assets less than Rs. 20,000 had access to institutional loans for their credit needs only up to 35 to 37 per cent while the share of non-institutional agencies in the outstanding debt was as high as 52 to 62 per cent. In case of higher asset households, 70 per cent of the outstanding debt came from institutional sources. Therefore, despite strong network of rural branches and strong emphasis on target lending under poverty alleviation programmes, creating self employment opportunities, etc, a large number of rural poor remain outside the fold of formal banking system for their credit needs. According to the findings of Rural Financial Survey 2004, conducted by the World Bank and NCAER only 19.4 per cent of the rural households in Uttar Pradesh and 24 per cent in Andhra Pradesh had access to formal sources of credit. Only 11.8 per cent of marginal farmers and 33.8 per cent small farmers accessed institutional credit in Andhra Pradesh as against 13.5 per cent and 24.7 per cent respectively in Uttar Pradesh (Table 11). The important factors impeding the access of disadvantaged sections of the rural society to institutional credit are higher transaction cost due to large numbers and small borrowings, higher risk cost, complicated procedures and large documentation required, inability of the borrowers to provide tangible collaterals, non-availability of tenancy agreements, loan waivers affecting recovery performance, poor risk mitigation mechanism on farms in the wake of crop failures and the mindset of the bankers against small loans viewing them as unprofitable.

TABLE 10. DISBURSEMENT OF AGRICULTURAL CREDIT TO DIFFERENT FARM SIZE CATEGORIES BY COMMERCIAL BANKS, INDIA

CGRs (1)	<2.5 acres (2)	2.51 to 5.0 acres (3)	> 5 acres (4)
1980-81 to 1989-90	18.3	21.9	14.6
1989-90 to 2001-02	13.2	15.6	16.0
1980-81 to 2001-02	13.6	15.2	14.1
Share in total disbursements (per cent)			
Period			
TE 1983	27.1	20.9	52.0
TE 1993	28.3	25.7	46.0
TE 2002	25.4	25.5	49.1

Source: Handbook of Statistics on the Indian Economy, 2004-05, Reserve Bank of India, Mumbai.

TABLE 11. DISTRIBUTION OF RURAL HOUSEHOLDS' ACCESS TO INSTITUTIONAL CREDIT

State (1)	<i>(per cent)</i>					
	Marginal (2)	Small (3)	Medium (4)	Large (5)	Others (6)	Total (7)
Andhra Pradesh	11.8	33.8	41.9	56.3	20.7	24.0
Uttar Pradesh	13.5	24.7	30.8	36.1	17.7	19.4

Source: Report of the Advisory Committee on Flow of Credit to Agriculture and Related Activities from the Banking System, Reserve Bank of India, Mumbai, 2004.

Indebtedness Among the Farmers

Indebtedness among Indian farmers has long been recognised by the observers of rural scene in India. The Deccan Riots Commission (1875) reported that one-third of occupants of the government land were under debt. The Famine Commission of 1880 reported that one-third of the land holders in the country were in deep debt and another one-third were also in debt but in a position to redeem it. The Famine Commission 1901 estimated that more than 80 per cent of the cultivators were under debt. The great depression (1929-33) considerably increased the burden of debt of the farmers (Kaushal, 1979). The problem of indebtedness of the farmers continues in the post-Independence period. The proportion of indebted cultivators came down to 46.1 per cent in 1971 and further declined to 22.3 per cent in 1981. In the subsequent period, the proportion of indebted cultivators increased to 25.9 per cent in 1991 and has increased sharply to 57.2 per cent in 2003 (Table 12). If farmers engaged in allied agricultural activities (going by principal source of income) are added to the cultivators then the proportion of indebted farmers at all-India level is estimated at 48.6 per cent (NSSO, 59th Round). Thus, the proportion of indebted farmers has been higher than that was estimated in 1971. Deceleration in agricultural growth in the 1990s is regarded as one of the most important factors responsible for increasing indebtedness.

TABLE 12. INDEBTEDNESS AMONG CULTIVATORS IN INDIA

Year (1)	Percentage indebted cultivators (2)
1971	46.1
1981	22.3
1991	25.9
2003	57.2

Sources: 1. RBI Bulletin May 1999 (for the years 1971, 1981 and 1991).
2. NSSO (2005).

There is a wide variation in the number and proportion of indebted farmers across the states and union territories in India. At the all-India level 48.6 per cent of the total farmer households are reported to be indebted. The incidence of indebtedness is the highest in Andhra Pradesh (82.0 per cent) followed by Tamil Nadu (74.5 per

cent), Punjab (65.4 per cent), Kerala (64.4 per cent), Karnataka (61.6 per cent) and Maharashtra (54.8 per cent). The states of Haryana, Rajasthan, Gujarat, Madhya Pradesh and West Bengal and group of UTs have reported indebtedness among the farmers to the extent of 50 to 53 per cent. The states of Maghalaya (4.1 per cent), Arunachal Pradesh (5.9 per cent) and Uttaranchal (7.2 per cent) are reporting very low incidence of indebtedness among farmers. The rest of the states are reporting the proportion of indebtedness among the farmers in the range of 18.1 per cent in Assam and 49.2 per cent in Tripura (Table 13). The states with high level of agricultural development are reporting high level of indebtedness among the farmers.

TABLE 13. ESTIMATED NUMBER OF TOTAL AND INDEBTED FARMER HOUSEHOLDS AND AMOUNT OUTSTANDING IN EACH STATE

State (1)	Estimated number of farmer households ('00) (2)	Estimated number of indebted farmer households ('00) (3)	Percentage of farmer households indebted (4)	Av. amount outstanding per indebted farmer (Rs.) (5)
Andhra Pradesh	60,339	49,493	82.0	23,965
Arunachal Pradesh	1,227	72	5.9	493
Assam	25,040	4,536	18.1	813
Bihar	70,804	23,383	33.0	4,476
Chhattisgarh	27,598	11,092	40.2	4,122
Gujarat	37,845	19,644	51.9	15,526
Haryana	19,445	10,330	53.1	26,007
Himachal Pradesh	9,061	3,030	33.4	9,618
Jammu and Kashmir	9,432	3,003	31.8	1,903
Jharkhand	28,238	5,893	20.9	2,205
Karnataka	40,413	24,897	61.6	18,135
Kerala	21,946	14,126	64.4	33,907
Madhya Pradesh	63,206	32,110	50.8	14,218
Maharashtra	65,817	36,098	54.8	16,973
Manipur	2,146	533	24.8	2,269
Meghalaya	2,543	103	4.1	72
Mizoram	780	184	23.6	1,876
Nagaland	805	294	36.5	1,030
Orissa	42,341	20,250	47.8	5,871
Punjab	18,442	12,069	65.4	41,576
Rajasthan	53,080	27,828	52.4	18,372
Sikkim	531	174	38.8	2,053
Tamil Nadu	38,880	28,954	74.5	23,963
Tripura	2,333	1,148	49.2	2,977
Uttar Pradesh	1,71,575	69,199	40.3	7,425
Uttaranchal	8,962	644	7.2	1,108
West Bengal	69,226	34,696	50.1	5,237
Group of UT's	732	372	50.8	10,931
All India	8,93,504	4,34,242	48.6	12,585

Source: NSSO (2005), *Indebtedness of Farmer Households*, 59th Round, Government of India, New Delhi.

The amount of outstanding loans per farmer also widely varies between different states and group of UTs. The highest per farmer debt is reported from Punjab (Rs.41,576) followed by Kerala (Rs. 33,907), Haryana (Rs. 26,007), Andhra Pradesh

(Rs. 23,965), Tamil Nadu (Rs. 23,963), Rajasthan (Rs. 18,372), Karnataka (Rs.18,135) and Maharashtra (Rs. 16,973). The states of Gujarat (Rs. 15,526) and Madhya Pradesh (Rs. 14,218) follow the states with high per farmer outstanding loans. The rest of the states and group of UTs have per farmer loan ranging between Rs.1,030 in Nagaland and Rs. 10,931 in case of group of UTs (Table 13). The states with high level of agricultural development and with commercial farming report high level of per farmer debt. The average holding size also differ across the states with Punjab, Haryana and Rajasthan having relatively higher size compared to Kerala, Tamil Nadu, Andhra Pradesh, Karnataka and Maharashtra reducing the gap in terms of per hectare/acre outstanding loans among the states reporting high percentage of farmers being indebted and also high per hectare outstanding loans.

The major shares of the outstanding loans of the farmers have been contracted for capital and current expenditure in farm business. At all India level 58.4 per cent of these loans have been used for meeting capital and current expenditure in farm business. The agriculturally developed states practicing commercial agriculture like Punjab, Haryana, Maharashtra, Karnataka and Andhra Pradesh have reported that farmers in these states have used these loans for meeting capital and current needs of agriculture. Among high farm household indebted states, Kerala has been exception in this matter. Non-productive loans (including for consumption expenditure and marriage ceremonies, medical treatment and other expenses and excluding for education) accounted for 34 per cent of the total outstanding loans at all India level. Among the major states, the share of non-productive loans has been varying between 24 per cent and 49 per cent. Among the non-productive loans, the combined share of consumption loans and loans for marriages and other ceremonies has been the highest (Table 14). The sizeable components of non-productive loans do not contribute to repayment capacity of the farmers. The case of crop failure due to droughts/floods, pest attacks or use of spurious insecticides and productive loans also add to high incidence of indebtedness of farmers and contribute to high level of debt per farmer.

The consequences of loans and their transformation into outstanding debt are considerably influenced by sources of loans. It is well known fact that availability of loans from formal sources makes them cheap because interest rates on regulated loans are low. But when loans are availed from informal sources, they involve high interest rates. Although the cost of transaction of credit is very low/zero in case of informal credits but high for formal sources of credit yet, formal credits are cheap. At all India level 57.7 per cent of the outstanding loans are from formal sources and 42.3 per cent loans have been obtained by farmers from informal sources. But the share of informal loans, which mainly comes from the money lenders and traders, is as high as 68.6 per cent in Andhra Pradesh, 52.1 per cent in Punjab, 65.8 per cent in Rajasthan, 46.6 per cent in Tamil Nadu, 58.3 per cent in Bihar, 81.9 per cent in Manipur and 42.0 per cent in West Bengal. In Karnataka the share of informal loans of the total outstanding loans is 31.1 per cent (Table 15).

TABLE 14. PER 1000 RUPEES DISTRIBUTION OF OUTSTANDING LOAN TAKEN BY FARMER HOUSEHOLDS IN DIFFERENT STATES BY PURPOSE OF LOAN

State	Purpose of Loan								
	Capital expenditure in farm business	Current expenditure in farm business	Non-farm business	Consumption expenditure	Marriages and ceremonies	Education	Medical treatment	Other expenditure	All purposes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Andhra Pradesh	234	381	32	114	96	14	24	105	1000
Arunachal Pradesh	44	58	5	159	0	203	120	411	1000
Assam	166	67	162	124	117	1	15	348	1000
Bihar	308	86	76	64	229	23	102	112	1000
Chhattisgarh	403	300	82	67	64	3	34	47	1000
Gujarat	203	503	39	63	101	5	30	56	1000
Haryana	360	262	68	47	140	0	20	103	1000
Himachal Pradesh	94	101	290	66	102	9	29	309	1000
Jammu and Kashmir	260	32	241	183	83	0	20	181	1000
Jharkhand	272	53	248	105	97	0	9	216	1000
Karnataka	307	375	98	56	75	6	2	81	1000
Kerala	110	104	228	102	112	14	25	305	1000
Madhya Pradesh	470	213	14	96	143	1	36	27	1000
Maharashtra	379	375	48	42	49	9	15	83	1000
Manipur	4	30	124	111	93	87	220	331	1000
Meghalaya	321	464	0	141	1	2	0	69	1000
Mizoram	807	0	2	126	0	12	0	53	1000
Nagaland	115	60	189	127	44	81	8	376	1000
Orissa	289	244	115	113	140	1	29	69	1000
Punjab	264	360	44	84	102	0	26	120	1000
Rajasthan	375	197	22	139	176	8	39	44	1000
Sikkim	122	49	221	204	2	0	6	396	1000
Tamil Nadu	243	251	55	131	87	26	41	166	1000
Tripura	263	157	171	68	43	0	17	281	1000
Uttar Pradesh	403	206	70	68	118	2	62	71	1000
Uttaranchal	184	158	173	92	74	0	22	297	1000
West Bengal	244	213	103	72	111	5	51	201	1000
Group of UT's	90	171	56	124	190	1	14	354	1000
All India	306	278	67	89	111	8	33	108	1000

Source: NSSO (2005), *Indebtedness of Farmer Households*, 59th Round, Govt. of India, New Delhi.

The prevalence of informal loans generates interlinked transactions in the market. The farmers borrowing from informal sources generally use their crop as collateral and commit to sell the output to the lenders. The loans are also used to acquire modern inputs like seeds, fertilisers, insecticides, pesticides and also consumer goods from the lenders. In some of the cases the farmers buy inputs as well as sell output via lenders. The interlinked transactions take place because lenders are engaged to marketing of agricultural inputs, consumer goods and agricultural output along with money lending. The professional money lenders/commission agents charge high interest rates generally between 18-36 per cent per annum and also exploit the farmers in supply of inputs and marketing of agricultural output (Bell, 1988, Gill, 2000; 2004). This has negative implications for agricultural development and cripples the farmers' capacity to return loans and come out of debt trap.

TABLE 15. DISTRIBUTION OF OUTSTANDING LOANS TAKEN BY FARMER HOUSEHOLDS
 IN DIFFERENT STATES BY SOURCE OF LOAN

(per '000 Rs.)

State (1)	Sources of Loan								All (10)
	Government (2)	Co-op. Society (3)	Bank (4)	Agri./Professional money lender (5)	Trader (6)	Relatives and friends (7)	Doctor/Lawyer etc. (8)	Others (9)	
Andhra Pradesh	10	104	200	534	48	53	9	42	1000
Arunachal Pradesh	61	0	208	0	159	507	0	65	1000
Assam	70	27	278	155	120	246	5	99	1000
Bihar	22	25	370	328	11	127	12	105	1000
Chhattisgarh	13	206	505	130	42	62	7	35	1000
Gujarat	5	418	272	65	44	177	9	10	1000
Haryana	11	239	426	241	20	34	15	14	1000
Himachal Pradesh	61	116	476	72	55	170	1	49	1000
Jammu and Kashmir	131	2	543	11	155	156	0	2	1000
Jharkhand	39	45	557	190	17	136	4	12	1000
Karnataka	19	169	501	200	18	68	4	21	1000
Kerala	49	283	491	74	17	67	10	9	1000
Madhya Pradesh	19	169	381	226	90	101	6	8	1000
Maharashtra	12	485	341	68	8	59	3	24	1000
Manipur	15	0	166	329	40	401	0	49	1000
Meghalaya	60	0	0	128	3	809	0	0	1000
Mizoram	243	31	499	0	34	193	0	0	1000
Nagaland	75	77	536	3	153	156	0	0	1000
Orissa	130	181	437	148	9	84	1	10	1000
Punjab	19	176	284	363	82	63	6	7	1000
Rajasthan	13	59	270	365	192	69	18	14	1000
Sikkim	348	0	230	73	221	67	0	61	1000
Tamil Nadu	20	233	281	397	4	53	1	11	1000
Tripura	164	28	605	20	39	119	0	25	1000
Uttar Pradesh	24	67	512	191	29	138	19	20	1000
Uttaranchal	315	48	398	59	17	149	0	14	1000
West Bengal	103	192	285	130	107	153	7	23	1000
Group of UT's	307	147	136	103	61	245	0	1	1000
All India	25	196	356	257	52	84	9	21	1000

Source: NSSO (2005).

Indebtedness and Farmers' Suicides

Suicide deaths may occur on account of economic, social, cultural and psychological factors and have been occurring across space, time and cultures. But suicides among the farmers in India have been of recent origin. Farmers' suicides are reported in the country regularly for the period of a decade and a half. The states of Andhra Pradesh and Karnataka have experienced a large number of farmers' suicides. The farmers' suicide deaths are also reported from Kerala, Maharashtra and Punjab. The emergence of this phenomenon has become a subject of debate among the scholars, social organisations and policy makers. As a result, some studies have been

sponsored by the state governments while some scholars have studied this phenomenon at their own. In Karnataka an expert committee was appointed by Government of Karnataka in 2001 under the chairmanship of G.K. Veerah. Similarly, Jayati Ghosh Committee was appointed by Government of Andhra Pradesh in 2005 to investigate distress in agriculture of the state.

Many studies from Andhra Pradesh (Parthasarathy and Shameen, 1998; Rao, 2004, Sridhar, 2005; Reddy, 2005; Sarma, 2004), Karnataka (Assadi, 2000, Krishnaprasad and George, 2005), Maharashtra (Mohanty and Shroff, 2004) and Punjab (Gill and Singh, 2005; Iyer and Manick, 2000; AFDR, 2000; Gill, 2005) have studied this phenomenon. Most of the studies have brought out multiple reasons for farmers' suicides. In Kerala and Maharashtra, along with economic factors, non-economic factors remain important for distressed farmers committing suicide. But in states of Andhra Pradesh, Karnataka and Punjab, economic factors are reported as the main causes of farmers' suicides. Among the economic factors, the failure of crop (mainly cotton) and failure of investment in bore wells are responsible for involvement of farmers in debt trap. In Punjab indebtedness of farmers is due to stagnant agricultural yields along with crop failure (Table 16), which have put heavy pressure on the farmers. In the wake of limited access to institutional credit, the small farmers are forced to borrow from non-institutional sources. At times, they rotate credit from non-institutional to institutional sources and vice versa leading to their exploitation by multiple agencies. There are a large number of factors which

TABLE 16. PROFILE OF SUICIDE VICTIMS

Sr. No.	Items	Punjab		Maharashtra	Kerala		
		Bhalla <i>et al.</i> (1998)	Iyer and Manick (2000)	AFDR (2000)	Mohanty (2005)	Mohan kumar and Sharma (2005)	Krishna Prasad and George (2005)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1.	Households of suicide cases studied (No.)	53	75	79	66	35	26
2.	Percentage of cultivators who committed suicides	55	66.66	84.80	100.00	100.00	100
3.	Percentage of agricultural labour households	45	33.33	15.20	N.A.	N.A.	N.A.
4.	Percentage of small and marginal farmers	25	84.00	65.70	63.63	86.10	100.00
5.	Causes of Suicides (in percentage of suicide cases studied)						
(i)	Indebtedness as one of the multiple causes	38	78.75	62.00	N.A.	N.A.	100.00
(ii)	Crop failure	1.05	10.00	5.10	67.00	N.A.	N.A.
6.	Debt exclusively from money lenders	36.72	67.50	27.40	N.A.	N.A.	N.A.
7.	Debt from money lenders and other sources	N.A.	81.25	73.60	72.27	N.A.	100.00
8.	Unproductive use of loans	68.20	51.61	20.00	N.A.	N.A.	N.A.

operate simultaneously and cause unbearable distress to the farmers. The resource poor farmers in all the major states reporting suicides constitute the largest proportion of suicide victim farmers.

From the evidence available it can be concluded with reasonable certainty that farmers suicide are reported from those states of India, which are relatively more advanced and are front runners in commercial agriculture. They are Andhra Pradesh, Karnataka, Kerala, Maharashtra and Punjab. These are the states which show high proportion of the farmers under outstanding debt. With the exception of Kerala and Maharashtra these are the states where farmers' dependence on informal sources of credit is quite high (Andhra Pradesh and Punjab). In case of Karnataka also, the dependence on informal sources is to the extent of 31.10 per cent. In majority of the cases, the suicide victim farmers have used loans for investment in agriculture and they belong to the category of small and marginal farmers. The resource poor farmers' suicides indicate that there is breakdown of the community sense and social support mechanism in areas of highly commercialised and competitive agriculture.

THE CHALLENGES AHEAD

Broadly speaking, there are three types of challenges before the rural financial institutions to cater to the agriculture sector for accelerating its growth. (1) The flow of agricultural credit has to be increased, (2) The accessibility of formal credit to rural poor and disadvantaged and agriculturally less developed regions has to be improved and (3) The economic viability of the rural banking operations has to be ensured over time. The Planning Commission has projected the institutional credit requirements for the agriculture sector at Rs. 7,36,570 crores for the Tenth Five Year Plan, which is three times higher than credit flow during the Ninth Plan period. The banking institutions have evolved new products to meet the challenge of increasing flow of credit in the farming sector like Kisan Credit Cards, Self Help Group (SHG)-Bank linkage programme, micro finance, etc. The expansion of the agricultural credit shall have to be improved further (i) by covering large number of farmers, who still are unable to access to formal credit due to rigidity in lending procedures and requirements, rigidity in loan products such as oral lessee, lack of ownership title, lack of capital, etc., inadequacy of the staff in rural branches and low profitability of institutions; and (ii) by increasing quantum of flow.

The agriculture scenario in India is moving towards new directions under globalisation. Promoting production of high value crops and value addition in agricultural produce is the new mantra for accelerating growth in Indian agriculture. Our agro-climatic conditions are so diverse that it provides the agricultural sector opportunities to enhance production in high value commodities like fruits and vegetables, livestock products, fisheries, etc., which are in high demand in the domestic as well as in the international market. The modern marketing infrastructure will be required to promote their production. Therefore, processing, value addition,

grading, standardisation, efficient and modern transportation, modern storage, contract farming, etc. are going to step up the financing requirements of the agricultural sector to drive full benefits from commodity production. New loan products such as pledge financing, marketing credit, loans against warehouse receipts, export credit, etc., shall have to be evolved to meet this challenge. The demand for purchased inputs and hence for credit is expected to rise due to high tech-high value agriculture. The formal agricultural credit delivery system has to address to these issues. The present credit delivery mechanism overly emphasises production credit. Thus, the imbalance between production and post production credit needs to be rectified.

The agricultural credit delivery system has been found wanting with respect to meeting adequately the credit requirements of high tech-high value agriculture and non-crop agricultural activities. Apart from crop sub-sector, the financing of activities like animal husbandry, fisheries, forestry, etc., which are registering significant higher growth than crop sector in recent years, will require vast credit support. The rural financial institutions will be required to play an active role in their promotion after the initial bottlenecks with regard to feed, fodder, veterinary services and processing facilities are removed.

The productive agriculture requires investments in complementary assets like irrigation, land development, farm machinery, livestock, etc. Irrigation is the pivot to the process of agricultural development. Sixty per cent of the net sown area of the country is unirrigated. Further exploitation of irrigation potential will come through watershed development and minor irrigation projects such as wells and tanks and their energisation. These projects should receive priority in formal lending for increasing agricultural productivity and production. The formal credit delivery system should shed excessive caution and find alternative ways of risk management in such investments to promote private capital formation. Rural financial institutions have done a good job in watershed development and such lessons should be shared to encourage watershed development further.

Financing rural non-farm employment activities is another area requiring attention of rural credit institutions as the scope of employment in farm sector is limited. The employment elasticity was estimated as 0.7 only during 1993-94 to 2001-02 (Tenth Plan Document). With the need for income diversification in rural areas, credit institutions will have to play a larger role in financing non-farm activities. Measures will include: strengthening capital structure, meeting requirements in time, providing bridge loans, extending credit line for banks by NABARD, better loan recovery mechanisms, etc.

The outreach of the formal agricultural credit is not adequate to rural poor, small and marginal farmers and agriculturally less developed areas. The small and marginal farmers, tenants and agricultural labourers still heavily depend upon informal sources of finance to meet their credit needs and pay very high rates of interest. The target oriented subsidy driven programmes have limited impact on income and employment

generation. We have seen some successful SHG–bank linkage projects, which have created assets, increased income and generated employment for these disadvantaged sections of the rural society. Such successful experiences of forming SHGs, encouraging them to save and providing micro finance have to be replicated. The consumption requirements of the rural poor, small holders and tenants need to be integrated with production requirements. Therefore, a holistic approach to lending covering their various sources of livelihood and consumption requirements is best suited to expand the coverage of formal credit to such sections. New innovations in risk management, individual or systemic, be evolved and tried because the security offered by them is inadequate. It will also help in improving the recovery performance of the loans and bring down the risk cost of financial institutions. KCC takes care of individual risk. Crop insurance programmes need to be made more effective to take care of the risk of crop failure. The tenants lack access to formal credit because tenancy agreement is not in written form. If the land lease market is made free, it can help tenants to meet their credit requirements from formal sources of finance. The concept of contract farming with the backing of formal credit should be encouraged to meet the credit needs of the small holders. There are wide regional variations in agricultural advances. The reasons for inequalities should be studied and corrective measures to the maximum possible extent should be taken to lessen these variations.

The cost of borrowings to the farmers is also an important issue affecting flow of credit to agriculture sector. The rate of interest to agriculture has been recently brought down to 9 per cent for loans less than Rs. 50,000 and 10.5–12.5 per cent on loans greater than Rs. 50,000. The cost of credit from the co-operative institutions is still high because at every tier of the three tier structure some costs and margins are added and secondly, co-operatives offer higher interest on deposits. The NABARD has amended its 1981 Act to provide refinance directly to DCCBs. Yet, the transaction cost is high, which need to be reduced by introducing new products like group lending, strengthening SHGs–bank linkages, improving efficiency of the staff through IT tools and increasing volume of business and providing multipurpose credit facility. KCC scheme has helped reducing transaction costs by providing access to all types of short term credit. Some procedural modifications are also required to reduce the cost of transaction such as simplification of forms, delegation of more powers to branch managers, introduction of composite cash credit limit, cash disbursement of loans without tying with kind component, dispensation of ‘no due certificate’, lending through non-banking financial companies, etc. Flexibility in the loans can also increase the flow of agriculture credit and reduce transaction costs.

The Indian economy is changing, so is the agriculture sector. There are changes in the livelihood pattern, pattern of holdings and input-output mix. The rural credit institutions shall have to shed their inhibitions to support the process of agricultural diversification and development. A progressive integration of financial market with

emphasis on self regulation, accountability and autonomy of the institutions with social responsibility will be required.

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