Working Paper 302

Credit Policy for Agriculture in India - An Evaluation

Supporting Indian Farms the Smart Way: Rationalising Subsidies and Investments for Faster, Inclusive and Sustainable Growth

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June 2015

INDIAN COUNCIL FOR RESEARCH ON INTERNATIONAL ECONOMIC RELATIONS

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List of Abbreviations

ADWDRS	Agricultural Debt Waiver and Debt Relief Scheme
AIDIS	All India Debt and Investment Survey
ANBC	Adjusted Net Bank Credit
CAGR	Compound Annual Growth Rate
CCB	Central Cooperative Banks
DBTL	Direct Benefit Transfer of LPG
DCAP	Doubling of Agricultural Credit Policy
DCCB	District Central Cooperative Bank
LPG	Liquefied petroleum gas
NABARD	National Bank for Agriculture and Rural Development
NGO	Non-Government Organisation
NPA	Non-Performing Asset
NSSO	National Sample Survey Organisation
OBE	Off-Balance sheet Exposure
PACS	Primary Agricultural Credit cooperative Societies
PCARDB	Primary Cooperative Agriculture and Rural Development Bank
RBI	Reserve Bank of India
RIDF	Rural Infrastructure Development Fund
RRB	Regional Rural Banks
SACP	Special Agricultural Credit Plan
SCARDB	State Cooperative Agriculture and Rural Development Banks
SCB	State Cooperative Banks
SHG	Self-Help Groups
WDRA	Warehouse Development and Regulatory Authority

Acknowledgements

The research leading to this paper was undertaken at ICRIER as a part of the project " **Supporting Indian Farms the Smart Way**: Rationalising Subsidies and Investments for Faster, Inclusive and Sustainable Growth", commissioned by Syngenta Foundation in 2014. The authors would like to acknowledge the invaluable comments from Dr. Ashok Gulati, ICRIER, Dr. K. J. S Satyasai, DGM, NABARD, Dr. Arvind Virmani, Chintan, Dr. Seema Bathla, Jawaharlal Nehru University, New Delhi and other participants during the Policy Workshop on "Fertilizer Subsidy and Credit Subsidy", 16 January 2015. Special gratitude is due to Dr. K J S Satyasai for his detailed comments following a review of the paper.

The authors take full responsibility for the views expressed in the paper and these should not be attributed to the reviewer or commentators.

Abstract

Rural indebtedness and dependence on private moneylenders is an age-old problem in India. For more than 100 years now, the Central Government and the Reserve Bank of India have been making efforts to enhance institutional credit in rural areas particularly to assist in agricultural operations. It began with the enactment of the Co-operative Credit Societies Act (1904) but efforts were redoubled after the nationalisation of Scheduled Commercial Banks in 1969. The aim of this paper is to evaluate the measures taken over the years and assess the extent to which they have been successful. It attempts to answer the question, "Is the agenda of expansion of institutional finance to agriculture unfinished?" The findings in the paper are inconclusive on this issue on account of contradictions in evidence: while the 2013 AIDIS survey finds that non-institutional lenders still account for only 36 per cent of the total outstanding agricultural loan, the short-term credit from institutional sources in 2012-13 covered 100 per cent of the input cost in agriculture in that year according to the National Accounts Statistics.

A particular focus of the paper is analysis of the cost and benefits of subsidies for agricultural credit and generalised debt waivers.

It finds that the steps taken to enhance institutional credit such as the opening of a large number of rural branches of commercial banks, priority sector lending with 18 per cent target for agriculture, Kisan Credit Cards and the financial inclusion initiative have really been instrumental in the impressive rise in agricultural credit and not credit subsidies. At the same time, the sharp rise in the share of short-term credit in the proportion of input costs points towards diversion of subsidised credit for non-agricultural purposes. The paper, therefore, makes a strong case for a serious review of the policy on agricultural credit subsidies. On generalised debt waivers, the finding is that they create expectations of similar waivers in future and disincentivise farmers from repaying loans. At the same time, anticipating adverse borrower behaviour, lenders tend to reduce the size of their lending operations; the net result is a contraction of credit available to farmers. The paper, therefore, also argues strongly against generalised waivers in future. However, targeted action where waivers follow a case by case examination of the merits of the case can be an appropriate response, particularly if such action is part of a comprehensive package to address acute agricultural distress.

JEL Classification: *I38, Q18, Q14.*

Keywords: *Agriculture, Credit, Subsidy*

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Credit Policy for Agriculture in India - An Evaluation

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Section 1: Introduction

Rural indebtedness is an age-old problem in India. In the nineteenth century, commercial banking was non-existent in rural areas, and farmers were completely in the hands of usurious moneylenders. Starting from the days of British rule, the central government has been striving to expand institutional lending to the rural agricultural sector. In recent decades, efforts in this direction have intensified and today, there is a vast network of institutions providing credit for agriculture.

One of the first steps taken by the Government of India towards addressing the problem was the establishment of co-operative credit societies. The Co-operative Credit Societies Act (1904) was passed to provide cheap and cost-effective financial services to farmers and attempts were made thereafter to widen the co-operative movement. The Maclagan Committee (1915) and the Royal Commission of Agriculture in India (1928) focused on the expansion of co-operatives in the country. The RBI Act, 1934, made provisions to establish an Agriculture Credit Department in the bank and extend refinancing facilities to the co-operative credit system.

However, there was a slowdown in the co-operative movement in subsequent years, as a large number of co-operative institutions were found to be saddled with the problem of frozen assets, because of heavy overdues in repayment. The RBI commissioned the All India Rural Credit Survey in 1951 to understand the situation at the grassroots level and address concerns regarding the financing of the rural sector. The committee recommended the creation of an efficient system of agricultural finance and the development of a sound co-operative credit structure. They suggested increasing the share of co-operatives and advised that at least one member of each household should be a member of a co-operative institution.

When the State Bank of India was created in July 1955, extending banking services to rural and semi-urban areas was made one of its objectives. Until 1966, co-operatives were viewed as the main instrument for extending agricultural credit. The All-India Rural Credit Review Committee (1969) recommended the adoption of a "multi-agency approach" towards agriculture and rural credit and commercial banks were expected to complement the efforts of co-operatives to enhance the quantum of credit in the rural economy. The nationalisation of commercial banks in 1969 made it possible for government to become more proactive on expanding credit to agriculture. In the same year, the concept of a ‘lead bank’ was introduced by the Reserve Bank of India; each bank was expected to concentrate on a specific geographical area to increase the

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flow of credit to agriculture and to promote overall development in rural areas within its area of operation.

A directed credit programme towards certain priority sectors was a major development policy in both developed and developing countries in the 1960s. The shortfall in agricultural output in India in 1966 and 1967 helped focus attention on the need for commercial banks to increase their involvement in financing agricultural activities. Under the concept of priority sector lending introduced in 1972, commercial banks were mandated to advance a certain proportion of their funds to these priority sectors, which included agriculture and small-scale industries.

The Narasimham Committee on rural credit (1975) recommended the establishment of Regional Rural Banks, as it was of the view that neither commercial banks nor co-operative institutions were able to meet agricultural credit needs. Another major step taken towards the development of rural credit was the establishment of NABARD in 1982 by a special act of Parliament on the recommendation of the Committee to Review Arrangement for Institutional Credit for Agriculture and Rural Development. Its mission is to "promote sustainable and equitable agriculture and rural prosperity through effective credit support, related services, institution development and other innovative initiatives" (NABARD).

Three other initiatives, viz., the Kisan Credit Card Scheme, Self Help Group-Bank Linkage Programme and Special Agricultural Credit Plans were put in place in the 1990s to increase the flow of credit to the agricultural sector. The increased lending to agriculture accelerated, particularly after the government adopted doubling of agricultural credit policy (DCAP) over a three-year period beginning in 2003-04.

Despite the successive efforts taken by the government, the latest All India Debt and Investment Survey (AIDIS) by the NSSO shows that non-institutional agencies still accounted for as much as 44 per cent of outstanding dues in 2012-13, an increase from the 36 per cent level in 1990-91. The ground level institutional credit flow to agriculture has shown a significant increase of more than ten times from Rs.0.53 lakh crore in 2001-02 to Rs.6.07 lakh crore in 2012-13 (Annual Report NABARD, 2013-14). And yet, only about half of 14 crore farm households were covered by formal institutions while the remaining were dependent on informal sources such as moneylenders who charge exorbitantly high rates of interest (Annual Report NABARD, 2012-13).

In 2006-07, the central government introduced an interest subvention of two per cent for short-term credit up to Rs.3 lakh. The subvention was enhanced subsequently and by 2013-14, an additional subvention of three per cent was available for prompt payment, making a total subvention of five per cent and reducing the effective rate of interest for short-term credit to four per cent.

In addition to the interest subvention schemes, there has been an intensification of debt waiver schemes. The first such waiver was announced in 1990. Another scheme to address the issue of indebtedness of farmers was the Farmer's Debt Waiver Scheme, announced by the Government

of India in 2008, covering 3.69 crore small and marginal farmers and 0.6 crore other farmers. The cost of this scheme was estimated initially at approximately Rs.70,000 crore.

The Prime Minister also announced a rehabilitation package in 2006 to mitigate the distress of the farmers in suicide-prone districts in the country. This included interest waivers and restructring of loans, investments in irrigation, seed replacement, watershed development and horticulture development.

Despite the slew of measures taken to improve access of farmers to institutional credit, the latest AIDIS report has reopened the question of whether the agricultural sector is adequately covered by institutional finance. Is the agenda of expansion of institutional finance for agriculture unfinished?

This paper aims to evaluate the policies of the central government and the Reserve Bank of India to enhance credit flows to agriculture. A particular focus of the paper is subsidies for agricultural credit and generalised debt waivers.

Section 2 deals with developments in agricultural credit during the period 1951 to 2013, when institutional sources gradually replaced non-institutional sources as the principal source of credit. Within institutional sources, commercial banks replaced co-operatives as the dominant credit agency.

Section 3 analyses the two components of credit subsidy, viz., interest subvention and debt relief through waivers of loans and/or interest.

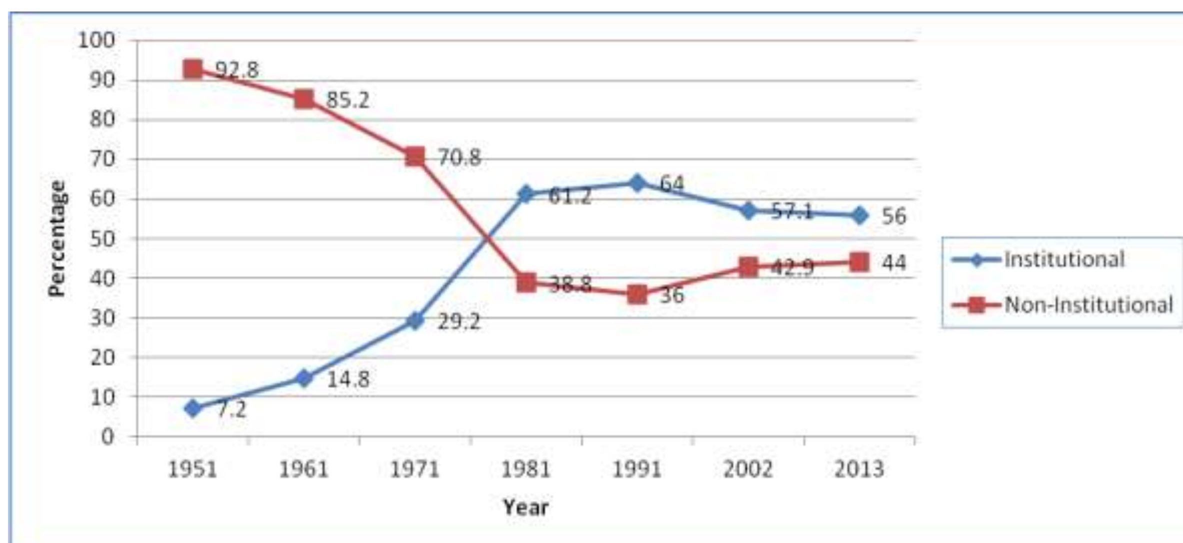
Section 4 concludes and makes recommendations.

Section 2: Trends in Agricultural Credit (1951-2013)

2.1 Expansion of institutional credit

Since the most important objective of government in agricultural credit after independence has been to strive for a greater share of institutional credit, we begin our analysis by looking at the evolution of institutional/non-institutional shares in rural and agricultural credit since 1951. The share of non-institutional credit as a proportion of overall rural credit[3] declined rapidly during the period 1951-81, and more slowly in the next decade but the trend seems to have reversed during the period 1991 to 2002 (Table 1a). The overall trend in agricultural credit is broadly similar but there is some variation after 2002 (Table 1b). Unlike in rural credit, it is seen that the institutional share in agricultural credit gained some ground in 2013, although it still remained lower than in 1991. With a number of policy measures taken by the government to step up the supply of agricultural credit in the decade of the 2000s, which we shall review later, it was expected that there would be an increase in the share of institutional credit. However, the latest report of AIDIS (2013), 70th round, has belied these expectations and it is seen that the share of institutional credit lost ground in agriculture and fell from 66.3 per cent in 1991 to 64 per cent in 2013.

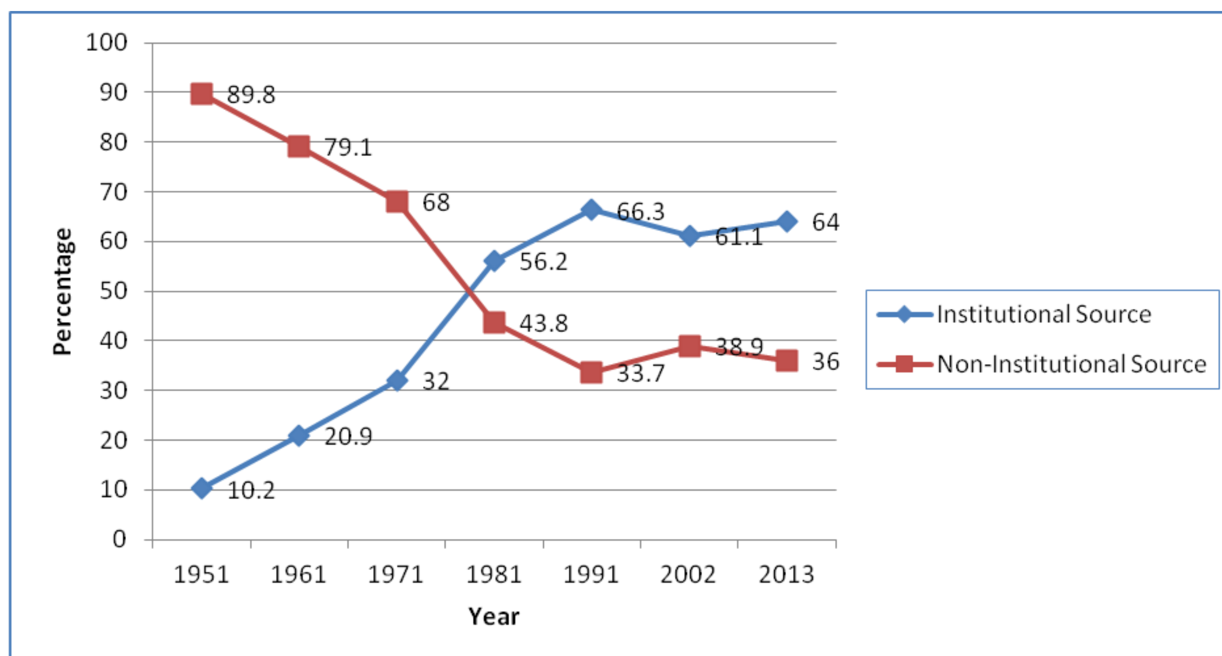
Figure 1 (a): Share of Outstanding Debt of Rural Household from Institutional and Non-Institutional Sources



Source: All India Debt & Investment Surveys, Various Issues, NSSO

[3] The AIDIS reports on which our study relies estimate the total outstandings.

Figure 1 (b): Share of Outstanding Debt of Cultivator Household from Institutional and Non-Institutional Sources



Source: All India Debt & Investment Surveys, Various Issues, NSSO

Non-institutional sources were dominant in 1951, accounting for 90 per cent of the outstanding debt of cultivator households, but their share declined rapidly to 79 per cent in 1961 and further to 68 per cent in 1971 and 43.8 per cent in 1981. After 1981, the rate of decline slowed down and the share of non-institutional sources was 33.7 per cent in 1991. There was, however, a reversal of this pattern thereafter and the share of non-institutional debt actually climbed up to 39 per cent in 2002 and dropped to 36 per cent in 2013. During this period, the share of moneylenders in providing credit rose from 17.5 per cent in 1991, to 26.8 per cent in 2002 and 29.6 per cent in 2013.

Growth in institutional credit came mainly from commercial banks and, by 1991, they had become the dominant agency, leaving co-operative banks well behind. In subsequent years, however, co-operative banks gained some lost ground and, by 2013, there is more or less parity in the standing of these two agencies as far as outstanding loans in the agricultural sector are concerned.

The above estimation of the evolution of shares of institutional and non-institutional sources, which is based on AIDIS reports of periodic surveys at the borrowers end, has not been accepted uncritically by experts. Satyasai (2002) has found that the outstanding debt owed to commercial and co-operative banks estimated in the 1991 AIDIS report was a mere 26 per cent of the credit shown in the returns submitted by the agencies. The reliability of AIDIS data has been similarly contested by Chavan (2002), who has found underestimation of household debt by about 46 per cent and 35 per cent in 1991 and 2001 respectively as compared to the bank credit outstanding from commercial banks. The same author has surmised that the possible reasons for underestimation could be sensitivity in revealing the full extent of indebtedness, failure to recall

debts fully or inability to calculate the interest accurately. While there is bound to be divergence in the data collected from the borrowers' and lenders' ends, it can be reasonably assumed that same errors apply equally to loans from various sources and the actual share of agencies in the outstanding agricultural debt would not be out of line by a wide margin with what has been estimated from time to time in AIDIS reports. As acknowledged in the Report of the Task Force on Rural Credit (2010), the credit needs of farmers have been growing due to an increase in the commercialisation of agriculture. The formal sources are inadequate to meet their credit needs and farmers need to approach informal sources for additional credit facilities.

Table 1 (a): Break-up of Institutional and Non-Institutional Rural Credit

Sources of Credit	**1951**	**1961**	**1971**	**1981**	**1991**	**2002**	**2013**
Institutional	**7.2**	**14.8**	**29.2**	**61.2**	**64**	**57.1**	**56**
Government	3.3	5.3	6.7	4	5.7	2.3	1.2
Co-operative Societies/Banks, etc	3.1	9.1	20.1	28.6	18.6	27.3	24.8
Commercial Banks	0.8	0.4	2.2	28	29	24.5	25.1
Insurance, Provident Fund	-	-	0.2	0.6	1.4	0.6	0.3
Other Agencies*	-	-	-	-	9.3	2.4	4.6
Non-Institutional	**92.8**	**85.2**	**70.8**	**38.8**	**36**	**42.9**	**44**
Moneylenders	69.7	60.8	36.9	16.9	15.7	29.6	33.2
Relatives, Friends, etc.	14.2	6.9	13.8	9	6.7	7.1	8.5
Traders & Commission Agents	5.5	7.7	8.7	3.4	7.1	2.6	0.1
Landlords	1.5	0.9	8.6	4	4	1	0.7
Others	1.9	8.9	2.8	4.9	2.5	2.6	1.4
Total	100	100	100	100	100	100	100

Source: All India Debt &Investment Surveys, Various Issues, NSSO

Note: Breakup of the share of each source is taken from RBI Working Paper Series, Persistence of Informal Credit in Rural India: Evidence from 'All India Debt and Investment Survey' and beyond.

*includes financial corporations/institutions, financial companies

Table 1(b): Break-up of Institutional and Non-Institutional Agricultural Credit

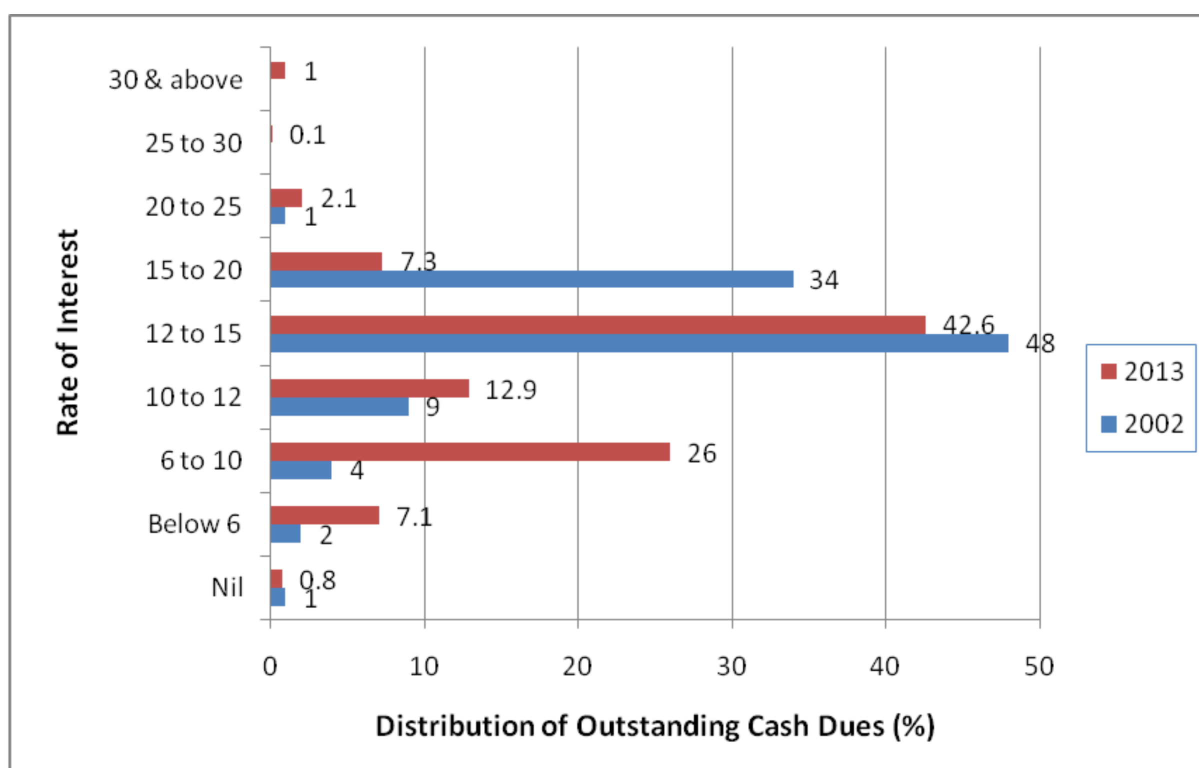
Sources of Credit	**1951**	**1961**	**1971**	**1981**	**1991**	**2002**	**2013**
Institutional	**10.2**	**20.9**	**32**	**56.2**	**66.3**	**61.1**	**64**
Government	-	6.2		4	5.7	1.7	1.3
Cooperative Societies/Banks, etc	6.2	12.5		27.6	23.6	30.2	28.9
Commercial Banks	4	2.2		23.8	35.2	26.3	30.7
Insurance, Provident Fund	-	-		0.8	0.7	0.5	0.1
Other Agencies*	-	-		-	1.1	2.4	3
Non-Institutional	**89.8**	**79.1**	**68**	**43.8**	**33.7**	**38.9**	**36**
Moneylenders	39.8	25.3		17.2	17.5	26.8	29.6
Relatives, Friends, etc.	-	-		11.5	4.6	6.2	4.3
Traders & Commission Agents	-	-		5.8	2.2	2.6	
Landlords	21.4	15		3.6	3.7	0.9	0.4
Others	28.6	38.8		5.7	5.7	2.4	1.7
Total	100	100	100	100	100	100	100

Source: All India Debt and Investment Survey, Various Issues, NSSO

2.2 *Interest Rates Charged by Institutional and Non-Institutional Sources*

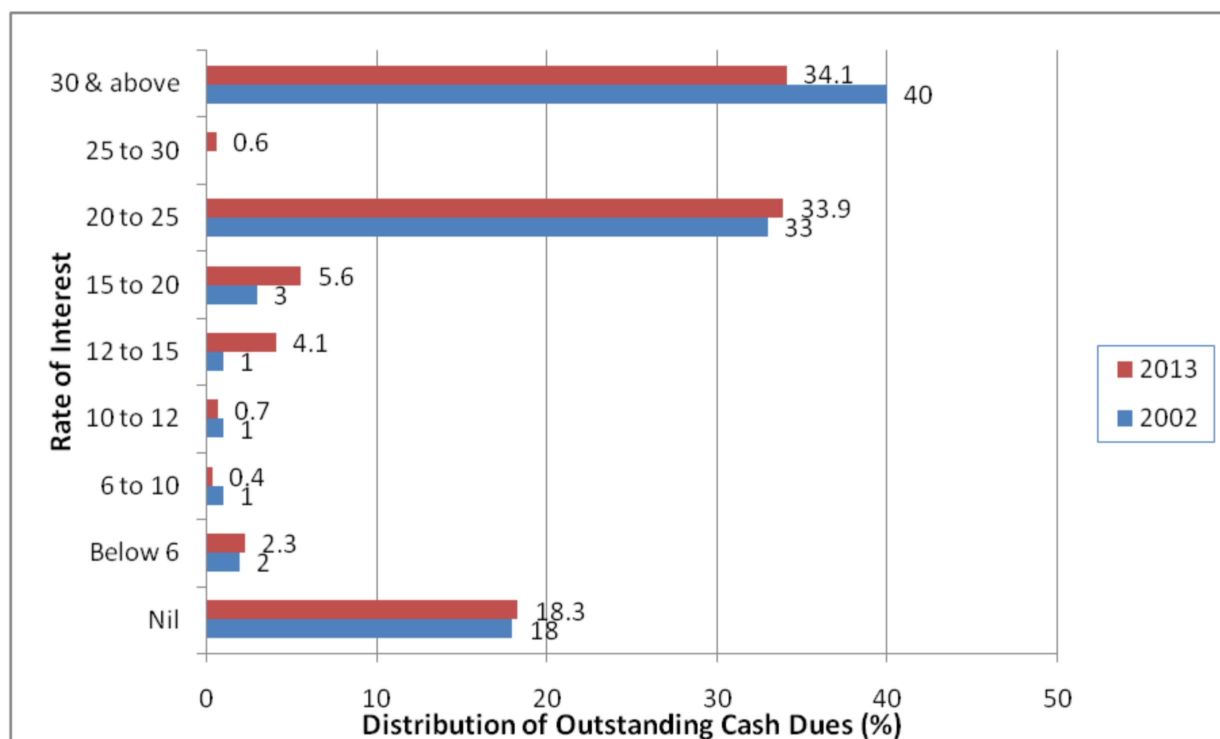
Non-institutional sources have shown resilience in retaining a large share of the outstanding debt despite the fact that the rates of interest charged by them are generally much higher than those charged by institutional sources (Figure 2 & Figure 3). According to the latest AIDIS Survey, as much as 71 per cent of the outstanding dues from non-institutional sources attracted interest rates of more than 15 per cent in 2013 whereas the corresponding figure for institutional sources was only 10 per cent. Further, outstanding debt at rates above 30 per cent was as much as 34 one per cent for non-institutional sources and only one per cent for non-institutional sources. It is, however, significant that non-institutional agencies also grant loans at zero per cent rate of interest and the share of interest-free debt in the outstanding debt was almost 18 per cent and18.3 per cent in 2002 and 2013, respectively. The flexibility to offer interest-free loans helps non-institutional agencies to lure their rural clients.

Figure 2: Distribution of cash dues with interest rates from institutional agencies: rural India



Source: All India Debt & Investment Survey, NSSO

Figure 3: Distribution of cash dues with interest rates from non-institutional agencies: rural India



Source: All India Debt & Investment Survey, NSSO

2.3 Trends in Institutional Credit

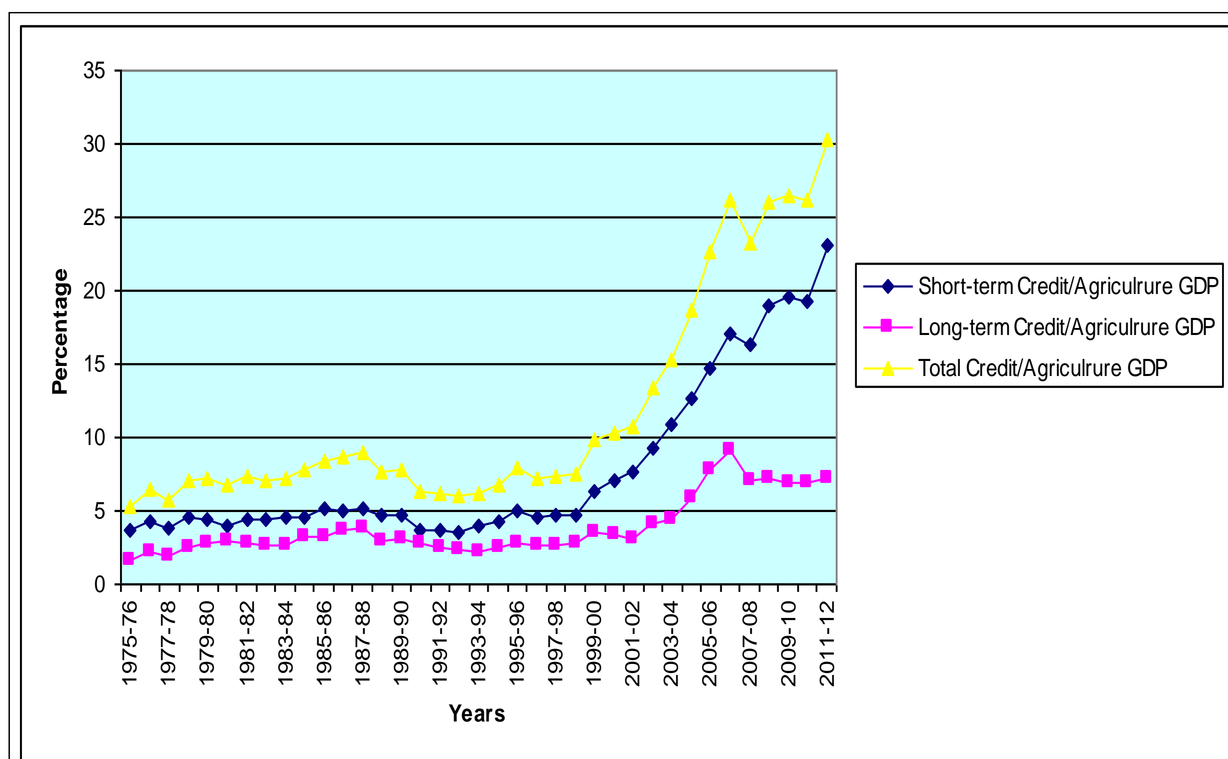
Direct lending to farmers by institutional agencies (co-operative banks, commercial banks and regional rural banks) takes the form of either short-term or long-term credit. In addition, there is substantial lending for allied activities, which is deemed to constitute indirect financing of agriculture.

Short-term agricultural credit or crop loans enable cultivators to procure inputs such as fertiliser and seeds needed for seasonal agricultural operations, while long-term credit is for investment in fixed assets, such as irrigation pumps, tractors, agricultural machinery, plantations and those related to dairying, fishing and poultry. Short-term credit is also meant to cover the cost of hired labour as well as a part of the consumption needs of poorer farmers. Indirect finance of agriculture includes loans to input dealers, loans for setting up agri-clinics and agribusiness centres, loans to microfinance institutions, loans to dealers in agricultural machinery and drip and sprinkler irrigation systems, loans for construction and running of cold storage units, irrespective of their location, loans to food and agro-processing units, and diverse other activities related to agriculture.

There has been a manifold increase in the volume of direct agricultural credit advanced by institutional agencies in the last four decades or so. Between 1975-76 and 2011-12, the volume of short-term credit from commercial banks, co-operative banks and RRBs rose from Rs 1,096 crore to Rs 3,46,737 crore, that of long-term credit from Rs 499 crore to 1,07,162 crore and that

of the total from Rs 1,595 to Rs 4,53,899 crore at current prices. The growth of credit has been far higher than the growth of agricultural GDP, and in terms of the percentage of agricultural GDP, short-term credit has risen steeply from 3.66 to 23.13 , long-term credit from 1.67 to 7.15 and total credit from 5.33 to 30.28 during the period. The year-on-year increase can be seen in Figure 4.

Figure 4: Graph showing short-term credit and long-term credit as a percentage of agricultural GDP



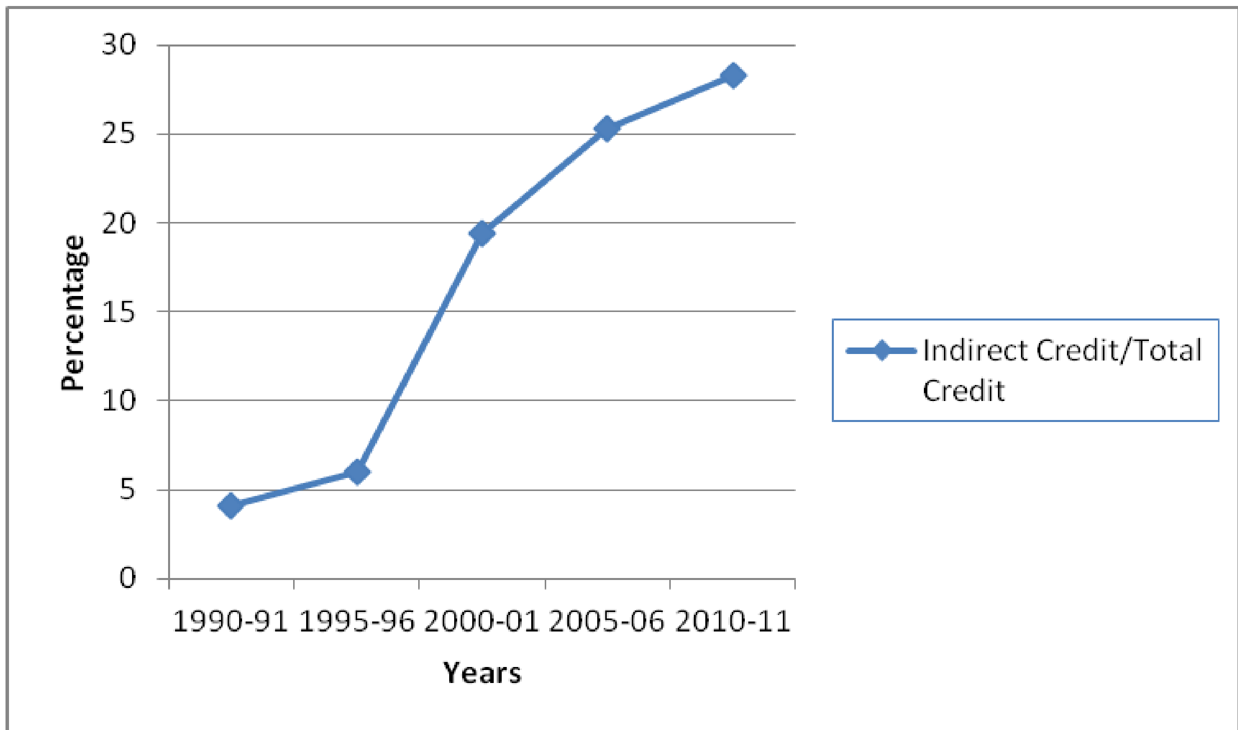
Source: Handbook of Statistics on the Indian Economy, Reserve Bank of India & National Accounts Statistics, CSO

There was a visible fall in the rate of growth of agricultural credit in the early 1990s and it remained modest in the rest of the decade too. Accelerating growth could only be seen from around 2002-03.

Indirect credit has risen even more impressively, due mainly to more and more categories being brought within the ambit of agricultural credit. As a percentage of agricultural GDP, indirect finance rose from the level of 1.86 in 1975-76 to 22.24 in 2007-08 (the latest year for which complete data are available).

The graph (Figure 5) shows that the share of indirect credit as a proportion of total credit by commercial banks has increased from 4.10 per cent in 1990-91 to 28.28 per cent in 2010-11.

Figure 5: Graph showing Indirect Credit as a proportion of total Credit by Commercial Banks



Source: Handbook of Statistics on the Indian Economy, Reserve Bank of India

2.4 Factors contributing to the growth of agricultural credit

2.4.1 Growth of rural branches of commercial banks

In the 19th century, commercial banking was an urban phenomenon and the rural population was dependent entirely on moneylenders. It was only after the enactment of the Co-operative Credit Societies Act (1904) that co-operative banks introduced institutional financing in rural areas and started providing affordable financial services to farmers for agricultural purposes. Commercial banks did not appear on the rural scene until after independence. In the era of planned development, the government wanted commercial banks to play an active role in the development process rather than being a passive agent for providing financial services. When the Imperial Bank of India was taken over and the State Bank of India was established in 1955, a conscious attempt was made to open bank branches in rural areas. The initiative was strengthened thereafter, with the introduction of the concept of social control of banks in December 1967 and accelerated even further after structural transformation following the nationalisation in 1969 of 14 major commercial banks that had deposits of over Rs 50 crore. The spread of banking to unbanked areas received focused attention after nationalisation. Apart from the adoption of a branch licensing policy to serve this objective, the Lead Bank Scheme was launched under which a 'lead bank' was designated for each district to take the lead role in surveying the credit needs of the population and developing banking and credit facilities. The

banks were also mandated to ensure that rural and semi-urban branches maintained a credit-deposit ratio of 60 per cent. As a result, of the 10,543 branches opened in the period between June 1969 and December 1975, as many as 5,364, or more than 50 per cent, were in rural areas.

Between 1976 and 2014, the number of rural branches of commercial banks increased from 7690 to 44,699. During this period, commercial banks became the lead institutional credit agency, accounting for 73 per cent of credit flows in 2012-13. Obviously, the increase in the number of bank branches and the fall in the branch/population ratio (Table 2) helped improve the access of farmers to commercial banks and helped increase credit volumes.

Table 2: Rural Branches and Population per Branch

Year	Rural Branches	Population per Branch
1975	5598	87442
1981	8471	64650
1991	11344	57992
2001	14597	52319
2011	23097	36335

Source: Handbook of Statistics on the Indian Economy, Reserve Bank of India & United Nation Population Division

2.4.2 Establishment of Regional Rural Banks (RRBs)

In order to widen the reach of institutional credit, particularly among small and marginal farmers, the government also decided to establish Regional Rural Banks (RRBs) in 1975. The branches of RRBs served to improve further the farmers' access to credit. The number of RRBs as on March 31, 2014, stood at 57 with a network of 19,082 branches covering 642 districts throughout the country, although it accounts for only 10 per cent of total agricultural credit flow.

2.4.3 Priority Sector Lending

In line with the thinking in government that commercial banks should play a developmental role in the country, the Reserve Bank of India moved to improve the availability of farm loans from commercial banks to neglected areas in 1972 by introducing the requirement that banks allocate a proportion of aggregate bank advances to priority sectors. The banks were advised to increase their share to 33.5 per cent of adjusted net bank credit (ANBC) or the credit equivalent amount of off-balance sheet exposure (OBE), whichever is higher, by March 1979. This was later revised upwards to 40 per cent in March 1985. Priority sector lending remains an important element in banking policies to date, with new categories added. Agriculture and small-scale industries were the original beneficiaries of priority sector lending but now a number of other categories have been added, including micro and small enterprises, education, housing, export credit, and loans and borrowers belonging to the weaker sections. The original target of 40 per cent for priority sector lending and the sub-target of 18 per cent for agriculture continue to be valid. However, the target for agriculture now applies not only to direct lending to farmers but indirect financing as well, with a sub-target of 4.5 per cent. Indirect agricultural loans include loans up to Rs.5 crore to dealers/sellers of agricultural inputs, loans for setting up of agri-clinics

and agribusiness centres, loans to customs service enterprises who provide tractors, bulldozers, well-boring equipment, threshers, combines for being hired by farmers, loans up to Rs.5 crore to co-operative societies of farmers for disposing of the produce of members, loans for construction and running of storage facilities including cold storages, and loans to MFIs, NGOs and RRBs for on-lending to farmers. Even the outstanding deposits under RIDF, warehouse Infrastructure Fund, Short-term Co-operative Rural Credit Refinance Fund and Short-term RRB Fund with NABARD are treated as indirect agriculture loans. Although the activities brought under the purview of indirect agricultural lending have the potential to support farming, it deserves to be underlined that the earmarking of a sub-target for indirect financing has affected the volume of direct lending to farmers.

The targets and sub-targets are strictly enforced on banks. Scheduled commercial banks, which fall short of achieving the agricultural sub-target, are allocated targets for contribution to the Rural Infrastructure Development Fund (RIDF), established with NABARD, by the Reserve Bank of India. These amounts are determined on the basis of the shortfall in achievement of the sub-target for agriculture; the rate of interest payable to them by the RIDF is also related to the deficit as shown in Table 3. It will be seen that the banks incur a substantial penalty for underperformance and the level of such penalty rises with the level of shortfall.

Table 3: Rate of Interest for Shortfall in Agriculture Lending

Shortfall in agriculture lending target for domestic commercial banks	Rate of interest (%)
Less than two percentage points	Bank Rate minus 2 percentage points
Between two and five percentage points	Bank Rate minus 3 percentage points
Between five and nine percentage points	Bank Rate minus 4 percentage points
Above percentage points	Bank Rate minus 5 percentage points

Source: Annual Report, NABARD, Various Issues

It is apparent that directed lending by commercial banks envisaged under the priority sector lending mandate has been a critical factor contributing to the expansion of agricultural credit in the country. It must be acknowledged, however, that the inclusion of indirect financing within the scope of lending to agriculture would have released the pressure on banks for direct lending to farmers.

2.4.4 Self-Help Groups (SHG)-Bank linkage Programme

The SHG-Bank Linkage Programme is an important plank of the strategy for delivering financial services to the poor in a sustainable manner. Under this programme, SHGs come together and gain financing access through banks by pooling in their resources. The pilot project was started by NABARD in 1992 as a partnership model between SHGs, banks and NGOs. Later on, RBI approved guidelines to banks to enable SHGs to open accounts. This was coupled with a commitment by NABARD to provide refinance and promotional support to banks for the SHG-Bank Linkage Programme. In the initial years, the scheme progressed slowly but picked up gradually; the number of SHGs financed accounts increased to more than 73.18 lakh savings-

linked Self Help Groups (SHGs) covering over 9.50 crore poor households as on March 31, 2013. The total outstanding amount is Rs.39,375 crore and savings deposit of these SHGs with banks amounted to Rs.8,217.25 crore (NABARD Annual Report, 2013-14).

2.4.5 Special Agriculture Credit Plan

With a view to ensuring that the flow of credit to agriculture increases substantially, RBI advised banks in 1994-95 to prepare an action plan for disbursement of credit to agriculture. Accordingly, each bank prepares a Special Agricultural Credit Plan (SACP), segregated into quarterly targets, which is monitored by the RBI. Earlier, the SCAP mechanism was applicable only to the public sector banks but it was extended to private sector banks in 2005-06.

2.4.6 2004 Initiative for Doubling of Agricultural Credit

In June 2004, the central government announced a package of measures aimed at doubling agricultural credit over three years, starting with a credit growth of 30 per cent for 2004-05. The measures taken by the Reserve Bank and the Indian Banks Association in respect of commercial banks and by NABARD in respect of co-operative banks and the RRBs included debt restructuring and fresh loans to farmers affected by natural calamities, one time settlement for small and marginal farmers, fresh finance to farmers whose earlier debts had been settled and relief measures for farmers indebted to private money lenders. This initiative was immensely successful and the actual disbursement of credit exceeded the three-year target. Encouraged by the expansion of credit, the central government fixed targets for subsequent years as well. The target increased at an annual compound growth rate of 21 percent in the period beginning from 2004 to 2014.

2.4.7 Kisan Credit Cards

The Kisan Credit Cards Scheme, introduced in August 1998, is an innovative credit delivery mechanism to meet the credit needs of the farmer. Apart from providing short-term and term loans, a certain component of KCC also covers consumption needs. An important feature of the scheme from the outset was that once the documentation to establish the bona fide and assets of beneficiaries is done, they could approach financial institution for simple and hassle free sanction of credit from the second year onwards. Further progress was made in later years and now the passbook has been replaced by a plastic card, and the Kisan Credit Card is an ATM enabled debit card. Under the earlier system, disbursal of short-term credit to agriculture was mostly through demand loans and cash credit, which permitted withdrawals mainly through debit vouchers, saving accounts and through bankers' cheques. However, the traditional system of loan disbursement through passbooks were replaced by ATM-enabled debit cards with facility for withdrawal/disbursement of loan. The main objective is to develop a cashless eco system by enabling the farming community to avail of banking facilities. Its use has spread over the vast institutional credit framework involving commercial banks, RRBs and co-operatives.

According to the RBI, 12.84 crore Kisan Credit Cards had been issued up to 2012-13. This number exceeds the number of agricultural households given by Situation of Agricultural

Households in India, NSSO (9.02 crore) for that year, implying that many households have multiple cards.

2.4.8 Financial Inclusion Programmes

The outreach of agriculture credit to farmers by covering them through bank accounts is one of the most important factors that have led to the recent expansion of agricultural credit. According to the latest data released by AIDIS (2013), 68.8 per cent of rural households and 79.5 per cent of urban households had bank accounts.

As part of the financial inclusion programme, the government had launched the Swabhiman scheme in 2011 to extend the reach of banking in rural areas initially to approximately 74,000 habitations with a population of more than 2,000. It aimed to provide branchless banking services in the remotest areas through banking correspondents, making use of technology.

Another step in this direction was the introduction of Jan Dhan Yojna to provide access to banking facilities to all households and almost every household has a bank account (PMJDY, Ministry of Finance). The government has already introduced the Benefit Transfer of LPG (DBTL) Scheme where consumers receive LPG cylinders directly in their bank accounts. Such financial inclusion programmes enable rural households to be covered by mainstream banking, reducing further their dependency on non-institutional sources of finance.

2.5 Performance of Institutional Credit Agencies

In the year 1975-76, co-operative banks accounted for the largest share of 75 per cent, followed by commercial banks at 25 per cent and RRBs at 0.13 per cent. In 1990-91, the shares of co-operative institutions and commercial banks were almost equal at 48 per cent and 49 per cent, respectively. Thereafter, there has been a turnaround in the position of these two institutions. There is a gradual decline in the share of co-operatives and an increase in the share of commercial banks. By 2012-13, the share of co-operative banks had fallen to around 17 per cent while that of commercial banks had increased to 73 per cent. The share of RRBs increased to 9.79 per cent in 2012-13 as compared to 3.4 per cent in 1990-91 (Figure 8).

Table 4: Average share of loans issued from various financial institutions towards Agriculture & Allied Activities

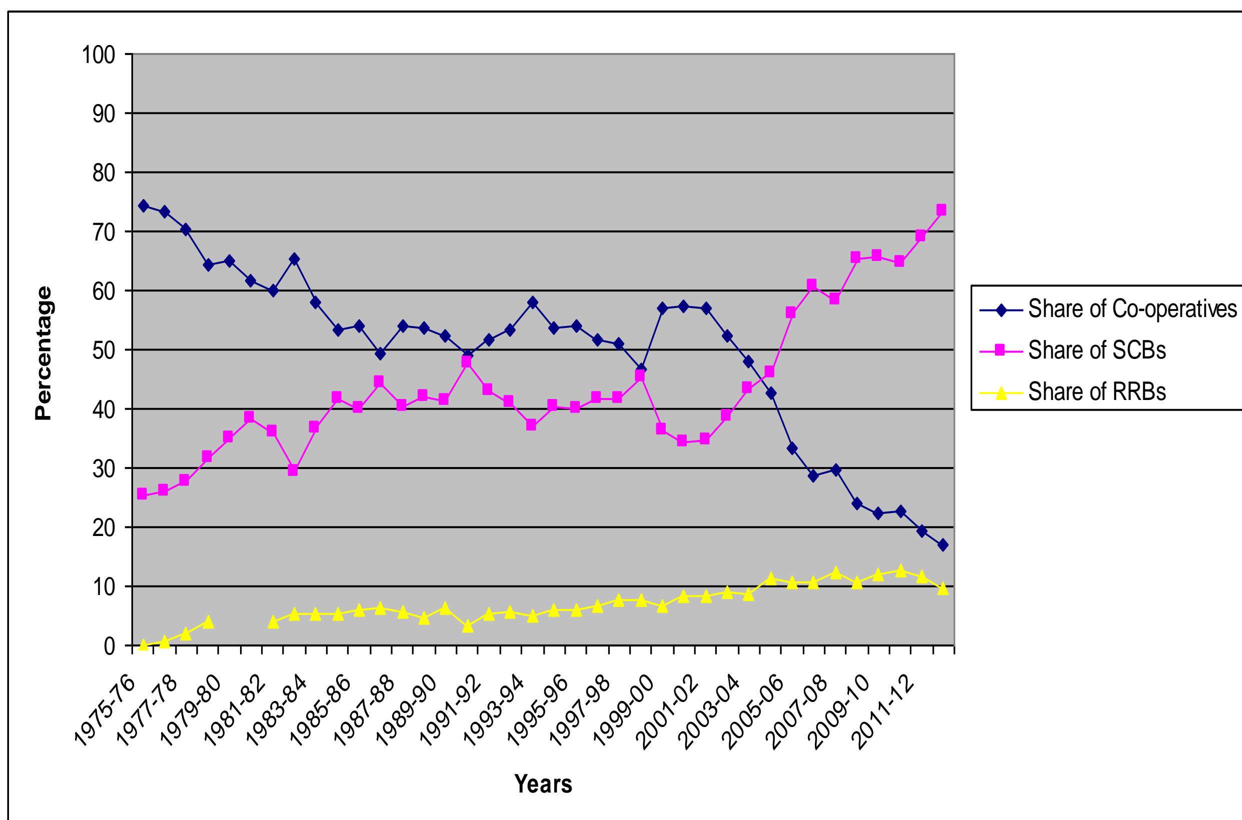
YEAR	**Share of Co-operatives (percent)**	**Share of Commercial Banks (percent)**	**Share of RRBs (percent)**
1975-75 to 1990-91	59.84	36.47	4.21
1991-92 to 2002-03	53.63	39.48	6.89
2003-04 to 2012-13	28.72	60.23	11.05

Source: Handbook of Statistics on the Indian Economy, Reserve Bank of India

Table 4 shows the major change in the shares of co-operative institutions and commercial banks in aggregate lending to the agricultural sector. The time periods in the table have been selected on the basis of significant changes in policies. The year 1991 was selected because it was the

year economic reforms were introduced; in 2004, a policy for doubling agricultural credit over the next three years was adopted. It is seen that in less than three decades, there was a complete reversal in the share of co-operatives and commercial banks.

Figure 6: Share of Direct Institutional Credit of various Agencies (Commercial Banks, RRBs & Co-operatives) for Agriculture & Allied Activities (percentage)



Source: Handbook of Statistics on the Indian Economy, Reserve Bank of India

Note:

(i) Data on credit by RRBs is not available for the years, 1979 & 1980

(ii) RRBs came into existence in 1975-76

(iii) Data since 1999-2000 covers PACS, SCARDBs, PCARDBs, while the earlier period covers only PACS

Until the 1960s, co-operative banks were entrusted with the main responsibility of extending credit service to the rural population of the country, particularly to small and marginal farmers. The share of co-operatives, which once dominated the rural credit market in the institutional segment with a 74 per cent share in 1975-76, has been declining consistently. As on March 31 2013, the short-term co-operative credit segment comprised 92,432 primary agricultural credit co-operative societies (PACS), 370 district central co-operative banks (DCCBs) and 32 state co-operative banks. Even though their share in total agricultural credit flow has diminished, they still provide credit to approximately 3 crore farmers, compared to 2.55 core farmers who receive credit from commercial banks and 82 lakh farmers who receive credit from regional rural banks

(RRBs). Their total exposure in the loan portfolio to small and marginal farmers is 66 per cent as compared to 55 per cent for commercial banks. As they have the largest outreach at the grass-root level, they also have the potential to become the most effective agency to promote financial inclusion (Nirupam Mehrotra, 2011).

The task force on the Revival of Co-operative Credit Institutions, headed by Prof. A. Vaidyanathan, (2004) has attributed the decline of these institutions to 'impairment of governance, 'impairment of management', and deteriorating financial performance. To give some examples of the state of affairs in these institutions from the Report of the Task Force, elections had not taken place in co-operative credit societies for 10 years or more in some states, boards of nine out of 30 state co-operative banks had been superseded, the state governments interfered directly in co-operative banks by deputing officials to top positions and by setting up common cadres for senior positions in co-operatives across tiers, and 53,626 PACS out of about one lakh PACS were incurring losses.

Based on the recommendation of the Vaidyanathan Committee, a package for the revival of the short-term rural co-operative credit structure was rolled out in 2006. An amount of Rs. 9,002 crore was released by NABARD as the Government of India's share, while state governments released Rs. 856 crore as their share for recapitalisation of 53,202 eligible PACS in 17 states. The RBI relaxed its licensing norms and 50 state and central co-operative banks were qualified for the issue of licences.

These efforts to improve the health of co-operatives have borne fruit and there has been a significant decline in all the tiers of co-operative institutions in the share of overdues to total demand, as can be seen in Table 7. There is perceptible improvement but only in the upper tiers (Table 5 and Table 6) in the share of NPA as a percentage of outstanding loans and in the percentage of recovery.

Table 5: NPA as a proportion (%) of Outstanding Loan (StCBs, DCCBs, SCARDBs and PCARDBs)

Year	**StCB**	**DCCB**	**SCARDBS**	**PCARDBs**
2005-06	16.84	19.65	32.69	35.64
2006-07	14.16	18.53	30.27	35.44
2007-08	12.33	18.48	34.99	43.47
2008-09	11.91	18.02	30.39	42.22
2009-10	9.08	13.00	33.34	42.78
2010-11	8.58	11.19	32.22	40.53
2011-12	6.98	10.25	33.20	36.71
2012-13	6.16	9.83	35.97	37.09

Source: Annual report, NABARD

Table 6: Percentage of Recovery (StCBs, DCCBs, SCARDBs & PCARDBs)

Year	StCB	DCCB	SCARDBS	PCARDBs
2005-06	86.57	69.16	46.38	47.63
2006-07	85.65	71.08	43.89	52.22
2007-08	84.59	55.61	49.94	42.15
2008-09	91.78	72.17	40.73	39.48
2009-10	92.00	76.00	41.00	37.00
2010-11	80.00	74.00	40.00	47.00
2011-12	95.62	80.78	40.17	47.33
2012-13	94.62	79.33	32.26	42.68

Source: Annual report, NABARD

Table 7: Percentage of Overdues to Total Demand (StCBs, DCCBs & PACS)

Year	StCBs	DCCBs	PACS
2002-03	17.74	37.43	39.55
2003-04	16.82	36.9	34.04
2004-05	15.53	32.86	31.09
2005-06	13.76	31.69	31.53
2006-07	13.27	32.93	31.31
2007-08	8.61	37.15	36.75
2008-09	8.68	32.69	51.37
2009-10	8.20	26.73	55.98
2010-11	7.69	27.37	37.92
2011-12	3.86	21.88	28.58
2012-13	5.18	20.37	26.03

Source: National Federation of State Cooperative Banks Ltd.

At present, commercial banks have the largest share in the flow of institutional credit for agriculture at approximately 73 per cent. There has been a sharp increase in their share from 46 per cent to 73 per cent between 2004-05 and 2012-13. After the adoption of the policy of doubling agriculture credit, an increasing proportion of the credit for agriculture has been disbursed by commercial banks.

2.6 Trends in Long-Term and Short-Term Credit

Based on tenure, agriculture credit can be classified into long-term and short-term credit. Short-term credit is typically for six months but covers credit up to one year. Long-term credit includes the medium term.

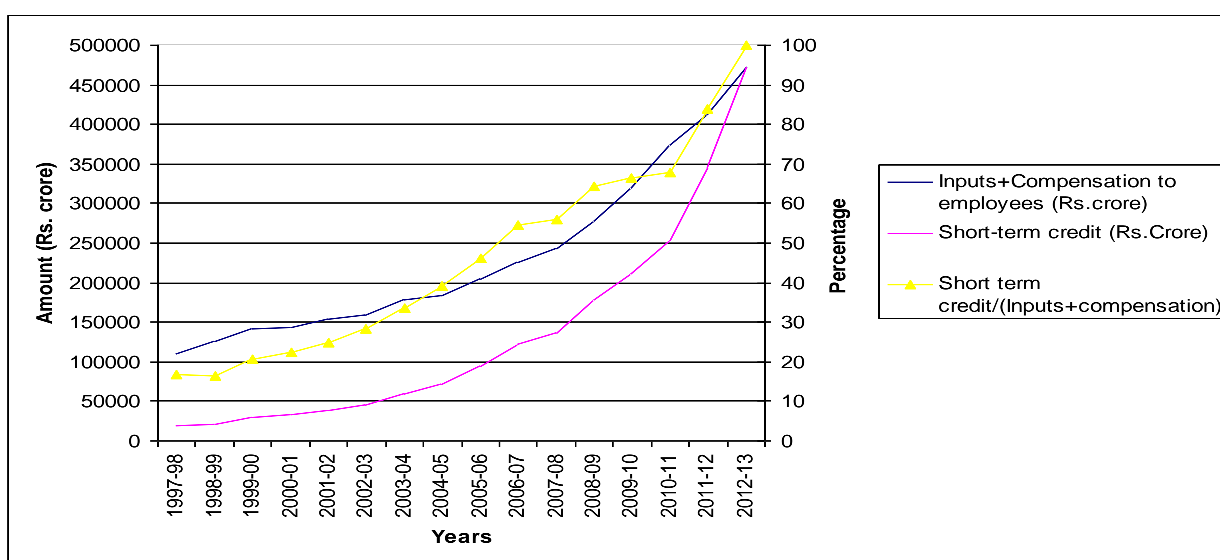
The amounts advanced as long-term and short-term credit have both been increasing rapidly. While long-term credit grew from Rs.500 to Rs.1,07,162 crore, short-term credit expanded from Rs.1,096 to Rs.3,46,737 crore during the period from 1975-76 to 2011-12. The rate of growth of

short-term credit was a tad higher, and the share of short-term credit increased from 68.7 in 1975-76 to 76.4 per cent in 2011-12.

From the demand side, the increase in short-term credit points to the fact that farmers have been borrowing more to meet their input needs such as seeds, fertilisers pesticides, power, irrigation and hired labour. We can estimate the total value of inputs used in agriculture by adding the value of inputs other than hired labour (Statement 54 of the National Accounts Statistics) to the value of compensation to employees in the sector (Statement 76 of National Accounts Statistics). The total value of inputs also represents the total short-term credit need of farmers. By comparing the total value of inputs used in agriculture with the total amount of short-term credit advanced by institutions, we can determine what proportion of the credit needs of farmers is being met from institutional sources. Figure 7 makes such a comparison.[4] There is a pronounced upward trend in this proportion, and starting from the level of about 16.8 per cent in 1997-98, it crossed 50 per cent in 2006-07. Thereafter, credit expanded at a faster rate than the use of inputs, and the gap between the curves starts closing rapidly; short-term credit as a percentage of total inputs reached 84.06 per cent in 2011-12 and finally, 99.97 per cent in 2012-13.

Going by the above data, the saturation point has been reached in the availability of agricultural credit from institutional sources and there is no unmet demand for short-term credit for which the farmer needs to go to moneylenders. However, we also recall that according to the AIDIS (2013) report, as much as 36 per cent of the outstanding debt of the farmer is owed to non-institutional sources. Some of the outstanding debt to non-institutional sources is undoubtedly long-term loans, but even so, the latest estimate is difficult to reconcile with the above analysis that points towards saturation in demand for short-term credit from institutional sources. We take the analysis further in section 3.

Figure 7: Graph Showing & Short-Term Credit as % of Agricultural Inputs

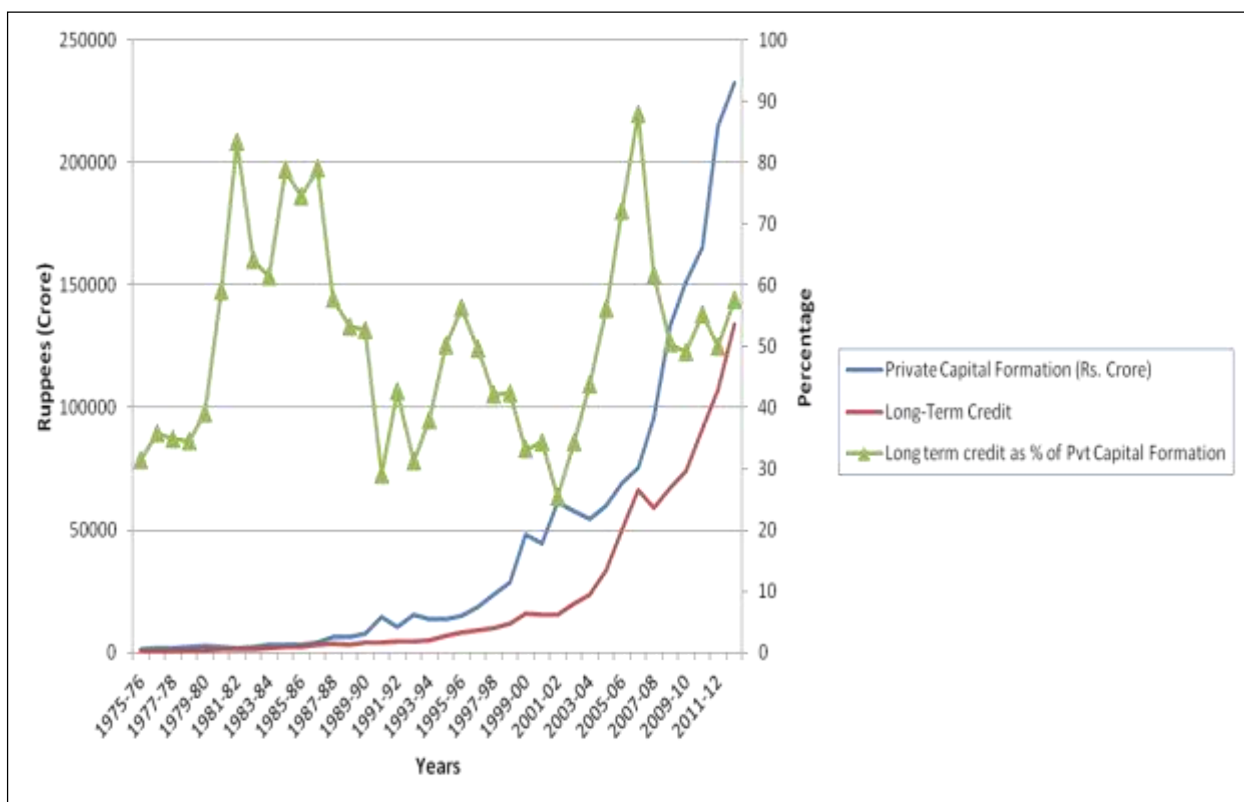


Source: Handbook of Statistics on the Indian Economy, RBI & National Accounts Statistics, CSO

4 An expert who reviewed the paper has commented that it is inappropriate to compare the data drawn from different sources for drawing conclusion in this regard.

Figure 8 shows the trend in the growth of long-term credit. Since long-term credit is a major source of financing of private capital formation in agriculture, we also examine the relationship between long-term credit and private capital formation in agriculture. The extent to which long-term agricultural credit has contributed to private capital formation has varied a great deal in past years. However, it is observed that in the years since 2004-05, when private capital formation has been exceptionally dynamic and has nearly quadrupled, long-term credit has had a consistently high share above 49 per cent. In 2006-07, the share was as high as 87.8 per cent. To the extent that long term credit contributes to private capital formation, it increases the productive capacities of farms on a long-term basis.

Figure 8: Graph Showing Long-Term Credit as % of Private Capital Formation



Source: Handbook of Statistics on the Indian Economy, RBI & National Accounts Statistics, CSO

2.7 Loans against Warehouse Receipts – Instrument for Financing Agriculture

The Warehousing Act, 2007, came into force with effect from October 29, 2010. Besides mandating the negotiability of a warehouse receipt, it provided for the establishment of a Warehouse Development and Regulatory Authority (WDRA), a regulatory body under the Act.

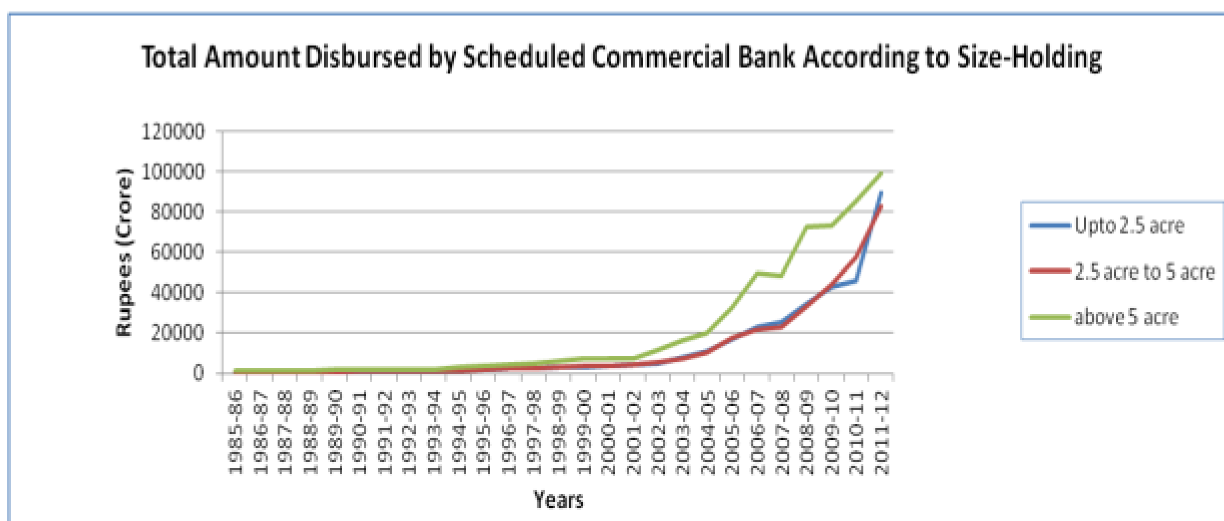
The introduction of a negotiable warehouse receipt (NWR) system in the country will help farmers avoid distress sales and avail of better credit facilities. The farmers can obtain a warehouse receipt that can be used as collateral for short-term borrowings to obtain working capital.

During the year 2011-12, the government introduced a scheme for concessional post-harvest loans to small and marginal farmers having Kisan Credit Cards against negotiable warehouse receipts for a period of up to six months at an interest rate of 7 per cent. In 2013-14, refinance of Rs.0.96 crore was extended by NABARD for this purpose. In the same year, 19,597 NWRS were issued, covering commodities valued at Rs.357 crore. Although the scheme is making progress, the utilisation of loans against warehouse receipts is well below the potential.

2.8 Distribution of benefits of Agriculture Credit by Commercial Banks

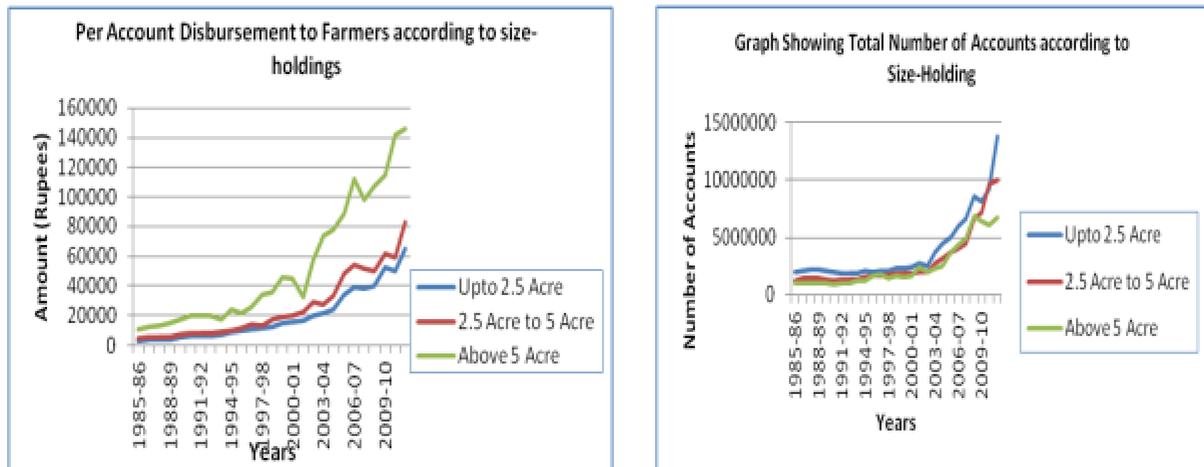
The criticism of elite capture of the benefits from agricultural credit is supported by an analysis of the distribution of total agriculture advances by size class limits between 1990 and 2011. Ramakumar and Chavan (2014) point out that there is a sharp decline in the share of loans less than Rs. 2 lakh in total advances, from 58.7 per cent in 1990 to just 5.8 per cent in 2011. On the other hand, the share of loans above Rs.25 crore increased from 5.7 per cent in 2000 to 17.7 per cent in 2011. However, the picture is more complex than the analysis above suggests. We find that there has been an increase in disbursement across all three categories of size-holdings (up to 2.5 ha, between 2.5 and 5 ha and above 5 ha), whether we consider the total amount disbursed (Figure 9), the number of accounts or the amount disbursed per account (Figure 10). The increases for the smallest category are at least on par with increases in other categories.

Figure 9: Graph showing the amount of loan disbursed by commercial bank according to size-holding



Source: Handbook of Statistics on the Indian Economy, Reserve Bank of India

Figure 10: Graph showing per account disbursement and total number of accounts by commercial bank according to size-holding



Source: Handbook of Statistics on the Indian Economy, Reserve Bank of India

Section 3: Credit Subsidy in Indian Agriculture

Before the introduction of economic reforms in 1991, the banking sector in India was comprehensively regulated, and one aspect of this was that an administered regime applied to interest rates with the Reserve Bank of India stipulating the minimum and maximum rates of loans and applying restrictions on deposit rates as well. Lower rates of interest were charged on loans to agriculture and other priority sectors and the stipulated minimum did not apply to them. These lower interest rates were made possible through cross-subsidies, not involving a direct contribution from the government.[5] The 1991 economic reforms changed all that and bank interest rates were virtually deregulated, both on lending and deposits. By 1995, cross-subsidisation of credit for agriculture (and other priority sectors) had been terminated.

However, the food crisis of 2006-07 saw the government taking a number of initiatives and one of them was the grant of subvention to enable lending institutions to advance credit to agriculture at a lower rate of interest.

The Finance Minister announced in his budget speech in 2006-07 that farmers would receive short-term credit at 7 per cent (against the prevailing rate of 9 per cent), with an upper limit of Rs.3 lakh on the principal amount. The policy came into force with effect from the 2006-07 kharif crops. To enable lending agencies to deliver credit at this rate to the farmer, the Government of India provided interest subvention at 2 per cent to public sector banks, regional rural banks and co-operative banks in respect of short-term production credit. The rate of subvention was varied somewhat in subsequent years but it remains at 2 per cent at the time of writing.

In 2009-10, the Government of India introduced an additional interest subvention of 1 per cent to farmers who repaid their loans on or before the due date; interest rate subvention for timely repayment was raised to 2 per cent in 2010-11 and further to 3 per cent in 2011-12, making the total subvention 5 per cent.

Thus, farmers who pay their dues on time receive a subvention of 5 per cent and are charged an effective interest rate of 4 per cent. The benefit of interest subvention (but not of additional subvention for prompt payment) is also available for post-harvest loans against negotiable warehouse receipts provided by banks to small and marginal farmers with Kisan Credit Cards.

The data on interest subvention provided to NABARD, Regional Rural Banks, co-operative banks and PSBs on short-term credit to farmers is provided in the Expenditure Budget prepared by the Ministry of Finance.

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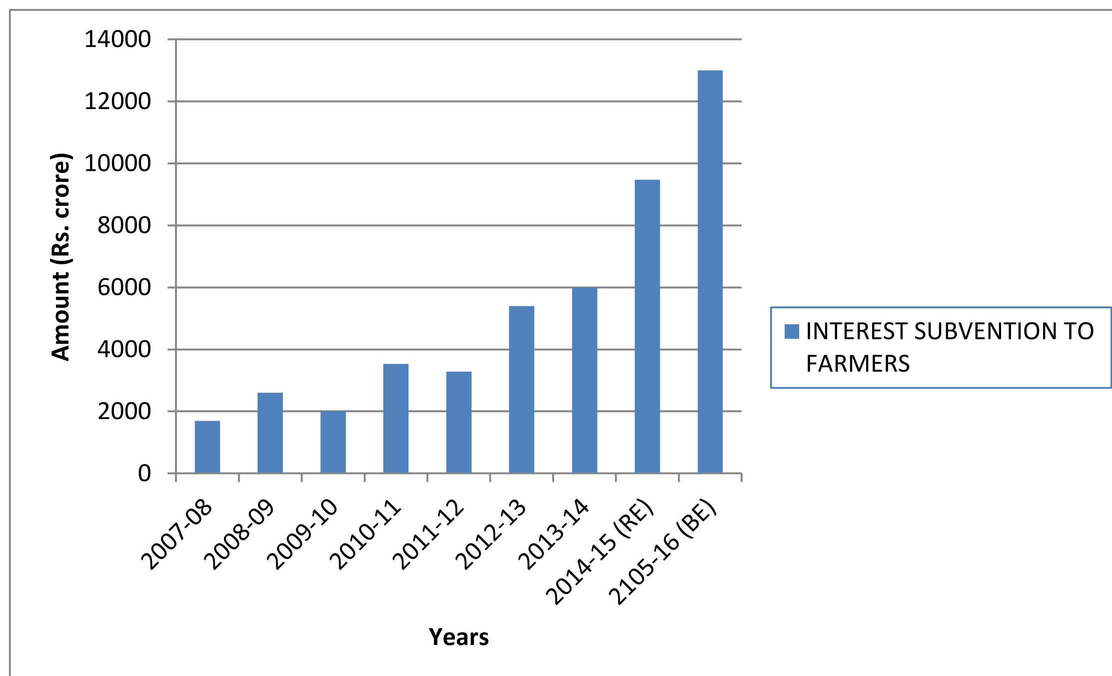
[5] In India's WTO notification of Supporting Tables to Commitments on Agricultural Products in Part IV of the Schedules, credit subsidy is estimated on the basis of the differential between the maximum commercial lending rate and average short-term lending rate to the agriculture sector. In the base years taken into account for estimating domestic support (1986-87, 1987-88 and 1988-89), the short-term lending rates for agriculture were 14.00, 13.50 and 12.75 against the maximum lending rates of 17.50, 16.50 and 16.00 respectively. Thus, the annual credit subsidy worked out to 3.50, 3.00 and 3.25 percentage points respectively. (WTO Doc G/AG/AGST/IND)

The expenditure from the central budget has increased from Rs.1700 crore in 2007-08 to Rs.13,000 crore in 2015-16 (BE). The graph in Figure 11 shows that the total amount of credit subsidy has increased more than seven-fold during the period from 2007-08 to 2015-16.

Figure 11: Graph showing interest subvention subsidy to agriculture sector



Source: Statement 5 of Expenditure budget, Volume1, Government of India

3.1 Evaluation of Subsidy on Short-term Credit

The scale of expenditure on credit subsidies in agriculture may not be comparable to that on other input subsidies, such as fertiliser, power and irrigation. However, credit subsidies also have an incremental effect on the mounting fiscal burden and we need to analyse and evaluate the benefits of these subsidies.

To what extent does the credit subsidy reduce the cost of working capital for the farmer and increase the profitability or income of the farmer? Table 8 gives data on working capital as a percentage of the cost of cultivation for nine major crops for six recent years. It is seen that, except in the case of cotton (in which the percentage is about 3 per cent), interest on working capital constitutes between 1 and 2 per cent of the cost of cultivation.

Table 8: Interest on working capital as percentage of total cost of cultivation for various crops

Years	Paddy	Wheat	Maize	Sugarcane	Potato	Onion	Cotton	Jute	Sunflower
2006-07	1.59	1.54	1.46	3.15	1.96	1.52	1.56	1.38	1.78
2007-08	1.53	1.50	1.48	3.19	2.12	1.90	1.51	1.43	1.77
2008-09	1.52	1.46	1.52	3.01	1.84	1.74	1.50	1.49	1.79
2009-10	1.54	1.48	1.52	2.66	2.03	1.61	1.48	1.46	1.78
2010-11	1.60	1.43	1.49	2.94	1.77	1.69	1.41	1.36	1.90
2011-12	1.58	1.46	1.52	3.23	1.80	1.84	1.48	1.35	1.72

Source: Directorate of Economics & Statistics, Department of Agriculture & Cooperation, Ministry of Agriculture

Given the low share of the cost of working capital in the cost of cultivation, the question that arises is how much value the farmer is likely to attach to the interest rate subvention. It is widely recognised that for the farmer, timely and adequate credit is more valuable than credit at a reduced rate. The farmer already benefits from the lower credit rate of about nine per cent charged by institutional agencies as compared to credit rates in the range of 20-30 per cent or more charged by non-institutional agencies. Prima facie, there does not appear to be a case for further reduction of the rate of credit by means of a subvention, particularly in an inflationary situation.

Has the credit subvention been a factor responsible for the expansion of short-term crop loans? Table 8 shows the growth of short-term credit, both before and after the introduction of the subvention.

The period 2003-04 to 2008-09 no doubt witnessed a big expansion in short-term crop loans. But we find that the growth rate (CAGR) in the three years after the introduction of credit subsidies in 2006-07 was lower at 16.8 per cent as compared to 19.8 per cent in the three years before its introduction[6]. The fact that after the introduction of credit subvention, the rate of growth of short-term credit actually came down throws doubt on the link between the subsidy and credit expansion. It is possible that the overall expansion of credit during the period 2004-05 to 2008-09 resulted from the cumulative effect of a series of steps taken by the government and the central bank to increase the reach of farmers to bank credit. These steps, which include priority sector lending, expansion of rural branches, introduction of Kisan Credit Cards, SHG-Bank linkage programme, and Special Agriculture Credit Plans culminated with the package of policy measures adopted to double agricultural credit during that period. After 2008-09, the efforts to increase the access of farmers to bank credit have continued with the financial inclusion programme, which covers both rural and urban areas.

While it is difficult to establish a connection between credit subvention and the expansion of short-term credit, it is easy to see the danger inherent in granting loans at highly concessional interest rates. A farmer who receives loans at a concessional rate of 4 per cent can easily deposit

[6] An expert who reviewed the paper has observed that differences in growth rate may not be significant in the light of the fact that annual growth in absolute volume of credit after 2006-07 was far higher than the period before 2006-07.

it in a financial institution and receive an interest rate of approximately 7.5-8.0 per cent in a fixed deposit scheme for six months. There is arbitrage opportunity here as the farmers can make a risk-free profit of 3.5-4 per cent. Thus, the production loan granted to farmers for productive purpose may not be used for agricultural production, or may be so used only partially.

Analysis of data relating to input costs and short-term credit lends credence to the suspicion that the arbitrage opportunity is being exploited. The short-term credit advanced directly is intended to finance the cost of inputs. We have already seen in Section 2 that the cost of inputs as a proportion of short-term credit has risen from 16.8 per cent in 1997-98 to 84.06 per cent in 2011-12 and further to 99.97 per cent in 2012-13 (Figure 9). By itself, it is not credible to suggest that a saturation point has been reached in the demand for short-term credit in the country. Figures of month wise disbursement of agricultural credit also raise questions on the utilisation of such credit. Since the main requirement in agriculture is for short term crop loans, the normal expectation would be for the maximum credit disbursement to take place up to the time of sowing in the Rabi season. However, analysis made by R. Ramakumar and Pallavi Chavan (2014) shows that as much as 46 per cent of the annual disbursement was made in the months of January to March in 2008-09, after the Rabi sowing had ended. A similar back loading is noticed in 2013-14 the share of annual disbursement in the last quarter of the financial year, was even higher at 62 per cent. The fact that the monthly credit flows are skewed against the months in which there is peak agricultural operations heightens the suspicion that short-term credit is being diverted for non-agricultural purposes. The latest AIDIS (2013) report that only 64 per cent of the outstanding agricultural debt was owed to institutional sources also casts doubts on how short-term agricultural credit is being utilised. Our analysis shows that credit subsidies for short-term crop loans do not raise the income of the farmer by more than a negligible amount and there is no empirical evidence that they may have helped to expand the use of short-term credit. On the other hand, they may have created an arbitrage opportunity leading to the misutilisation of cheap credit.

In this connection, it is worth noting that long-term agriculture credit has also expanded at a reasonably brisk pace without any credit subvention. There is a better case for subsidies on long-term credit, which at present is not subsidised. Long-term credit leads to private capital formation in agriculture, enhancing productive capacity in agriculture. Figure 10 shows the relationship between the growth of long-term credit and private capital formation. Although the proportion of long-term credit to private capital formation fluctuates from year to year, over the long-term, there is a close parallelism between the two. Both show steady growth from around 2003-04.

3.2 Agricultural Debt Waiver

In addition to subvention on short-term credit introduced in 2006-07, there has been an intensification in the use of the instrument of debt waivers, which results not only in a waste of financial resources but also has adverse consequences for the banking system and seriously impairs its ability to deliver agricultural credit on a regular basis.

The first waiver decision was taken in India in 1990 and the Agriculture and Rural Debt Relief Scheme (ARDRS) was approved. The announcement was made when the country was preparing for general elections, and the ostensible objective was to provide relief to the farming community overburdened with debt. The following years witnessed a decline in the recovery rates by financial institutions, as farmers believed that they could default with impunity. It affected rural credit with defaults of such a high magnitude that it took the banks several years to recover from its impact (Report on Task Force of Rural Co-operative Credit Institutions, 2006). Although the scheme was implemented during 1990-91, the real impact may have been felt from November 1989 itself when various political parties started making promises that they would write off agricultural loans if they returned to power. A study (Shylendra & Singh 1994) has found concrete evidence that the loan recovery of PACS in Karnataka fell from 74.9 per cent in 1987-88 to 41.1 per cent in 1991-92.

Another loan waiver scheme, the Agricultural Debt Waiver and Debt Relief Scheme (ADWDRS) was announced in May 2008, significantly just before the 2009 general elections, seeking to address the problem of indebtedness and difficulties faced by the farming community, particularly by small and marginal farmers. Under the scheme, complete waiver was provided to small and marginal farmers (those with landholdings of up to two hectares) while a one-time relief of 25 per cent was envisaged for other farmers (those with more than two hectares), provided they paid the balance 75 per cent of the 'eligible amount', which included interest and principal component. To qualify for the waiver, the loan had to be overdue as of December 31, 2007. The target was to cover over 3.69 crore small and marginal farmers and 0.6 crore other farmers. Short-term production loans and investment loans were included under the scheme. Loans provided directly to groups of individual farmers were also included in the scheme, provided they maintained disaggregated accounts for each farmers. Direct agriculture loans under Kisan Credit Cards were also eligible for debt relief/debt waiver.

The cost of this scheme was initially estimated at Rs.71,680 crore but the actual disbursement towards the ADWRDS up to 2011-12 was Rs. 52,516.86 crore, as shown in Table 9. The amount waived so far is thus much larger (more than double) than the cumulative credit subsidy (Rs.24,525 crore) on short term credit given since 2007-08.

Table 9: Amount disbursed year wise towards ADWDRS

Year	**Amount (Rs. Crore)**
2008-09	25,000
2009-10	15,000
2010-11	11,340.41
2011-12	1,176.39
Total	**52,516.86**

Source: Statement 4 of Expenditure budget, Volume1, Government of India.

Generalised debt relief discourages prompt repayment in future in the expectation that there may be more such waivers in the pipeline. The sense of inequity among the borrowers who might have paid back the loan with interest strengthens the attitude to avoid or delay repayments in

future. As might be expected, the massive write-off of loans has taken its toll on the banking system and the non-performing assets of commercial banks have risen three-fold in nominal terms between 2009-10 and 2012-13 (Table 10). As a share of outstanding loans in agriculture also, the NPA is steadily moving up and has now gone beyond the levels prevailing before the waiver.

Table 10: NPA of Commercial Banks in Agriculture

Years	NPA of SCBs in Agriculture (Rs. crore)	NPA as a share (%) of outstanding loans by SCBs
2005-06	6716	3.48
2006-07	7367	2.93
2007-08	9735	3.29
2008-09	7149	1.95
2009-10	10353	2.25
2010-11	16700	3.31
2011-12	24800	4.23
2012-13	30200	4.77

Source: Report of Trends & Progress of Banking in India, RBI

As a matter of fact, deeper analysis suggests that a generalised debt relief programme may result in a serious deterioration in the overall environment in which credit operations can be carried out. It may not just discourage prompt repayment but diminish lending as well, because of consequential expectations of default.[7]

The loan waiver scheme of 2008 was followed by another loan waiver of a large magnitude called "Runa Mafi", in 2014 in the state of Andhra Pradesh and the newly formed state of Telangana. Despite several warnings and criticism from the Reserve Bank of India and the

[7] In this context, it is relevant to refer to the investigation undertaken by De and Tantri (2013) in respect of the 2008 debt relief programme in India, based on a loan account level dataset obtained from an Indian public sector bank in four districts of Andhra Pradesh. It is appropriate to quote the authors here:

"Using a model as well as extensive empirical tests, in this paper we have investigated the effects of a large-scale debt relief program on the post-waiver debt repayment behavior of borrowers and creditors in a rural credit market. In our setting which captures actual conditions in many emerging economies, the farmers borrow from banks at a subsidized rate and from informal sources at a substantially higher rate, debt contract enforcement is imperfect, and political interventions in the credit market in the form of debt relief can happen even in normal states of the economy. The scope of our investigations has been comprehensive and has included all classes of borrowers: those who receive full debt relief, those who receive partial debt relief, and those who do not benefit at all from a relief program for overdue loans as they do not have any. Our model suggests, and our empirical tests have confirmed, that the effects are negative for all groups. The number of days taken to repay debt increases for all borrowers following a waiver, after controlling for loan volume, landholdings, and output of the farmers and all other relevant factors. Interestingly, the effects are the most negative for the group that do not benefit at all. Expectations of similar debt relief in future coupled with extensions on loan repayment granted by bankers who find debt recovery difficult drive our results that suggest *ex post* inefficiency in the credit market (sic). The group that did not have overdue loans in the past use extensions based on their good credit history to keep their loans outstanding the longest in the post-waiver period. Further, rationally anticipating adverse borrower behavior, the lending institutions ration credit, generating *ex ante* inefficiency as well. Ironically, access to finance for poor households *declines* following unconditional debt relief."

Indian Banking Association, the scheme was rolled out in these two states. While it will cost Rs.40,000 crore in Andhra Pradesh, it is expected to cost Rs. 17,000 crore in Telangana.

This scheme is aimed at benefiting farmers, who suffered in the cyclone 'Phailin', that severely damaged crops. According to newspaper reports, Telengana has announced waiver of loans up to Rs.1 lakh to 36 lakh affected farmers. The state has already granted Rs. 4,250 crore (25 per cent of the total amount) out of Rs. 17,000 crore to the banks. Andhra Pradesh has announced that the scheme would benefit 80 lakh farmers, and loans up to Rs.1.5 lakh a family would be covered under this scheme. Although, Rs.5,000 crore were to be given as the first allotment to banks, no such amount had been disbursed until the time of writing[8].

Details of the waiver schemes in the two states are not available and it is not clear if eligibility is conditional on the extent of crop loss due to the natural calamity. To the extent that the debt waiver is generalised, it is likely to attract the same criticism as the generalised debt waivers announced by the central government in 1990 and 2008.

3.3 Prime Minister's Rehabilitation Package for Farmers in Suicide-Prone Districts

The rehabilitation package for farmers in suicide-prone districts approvedn 2006 also included an element of debt waiver but with a difference. First, the debt waiver was not generalised but the result of a case by case examination of the situation of individual farmers. Second, the debt relief was complemented by an investment programme, which benefited farmers.

Thre was a comprehensive package that covered not only interest waivers and restructuring of loans but also investments in irrigation, seed replacement, watershed development and horticulture development. An investment of Rs.16978.69 crore was approved by the Union Cabinet for 31 districts in Maharashtra, Kerala, Karnataka and Andhra Pradesh for the purpose, of which Rs.10579.43 crore was as subsidy/grants and Rs.6399.26 crores as loan.

Out of the total amount sanctioned under this package, 16 per cent was utilised to waive overdue interest and 57.3 per cent for irrigation under the Accelerated Irrigation Benefit Programme, 11 per cent on watersehed programmes, 5 per cent on seed replacement and 10.7 per cent on micro irrigation. The debt relief included waiving off the entire interest on overdue loans as on July1, 2006, and rescheduling of loans for a period of 3 to 5 years where fresh loans were issued against the loans rescheduled.

A targeted debt relief is an appropriate response for alleviating farmer distress and cannot be criticised for vitiating the environment for loan operations in future. The Prime Minister’s rehabilitation programme for suicide-prone districts was doubly beneficial as it combined debt relief with a public investment and private investment incentivisation programme mainly in irrigation and horticulture.

[8] Business Standard, November 2, 2014

Section 4: Conclusions and Recommendations

The following broad conclusions emerge from the analysis in Sections 2 and 3:

1. Institutional vs. non-institutional credit: Even though there has been an impressive growth in institutional credit since 1951, the dependence of farmers on non-institutional sources for agricultural credit remains as high as 36 per cent in 2013. There was a steep fall in the share of non-institutional sources in the total outstanding agricultural credit from 89.8 per cent in 1951 to 33.7 per cent in 1991. However, in the next decade, non-institutional sources wrested back some of their lost share, which stood at 38.9 in 2002. In 2013, there was a small decline in their share of outstanding loans but, at 36 per cent, it was still above the 1991 level. What is striking is that there is a rising trend in the share of private moneylenders from 17.2 per cent in 1981, 17.5 per cent in 1991, 26.8 per cent in 2002 and 29.6 per cent in 2013.

2. Dominant Role of Commercial Banks: Notwithstanding the AIDIS finding on the evolution of shares of institutional and non-institutional sources in total outstandings, there has been a striking increase in credit flows from institutional sources in recent decades. The direct agricultural credit flow at current prices from all institutional agencies has increased from Rs.1,595 crore in 1975-76 to Rs.4,53,899 crore in 2011-12. The total agricultural credit flows (direct and indirect) at current prices has increased from Rs.2,152 crore in 1975-76 to Rs.3,81,009 in 2007-08. The direct institutional credit as a proportion of the agricultural GDP rose from 5.33 per cent in 1975-76 to 30.28 per cent in 2011-12. Within institutional sources, scheduled commercial banks have registered an impressive increase in their lending operations with their share in direct credit flows rising from 25 to 73 per cent during the period 1975-76 to 2012-13 while the share of co-operative banks has gone down from 75 to 17 per cent during the period. The share of RRBs has also increased from less than 0.13 to 10 per cent. Co-operative banks have yielded their dominant position as the provider of loans to the agriculture sector to commercial banks.

3. Rise in short-term credit from institutional sources and coverage of input costs: Short-term credit is provided primarily to finance the purchase of inputs. During the 1970s, 1980s and 1990s, the aggregate short-term credit as a proportion of input costs in agriculture was in the range of 13-20 per cent. However, since then, the increase in short-term credit has been much larger than the input cost, so much so that in 2012-13, it was as much as 99.97 per cent of the input cost, including compensation to hired labour. By itself, it does not look credible that the short-term credit market has reached a saturation point in the country. The AIDIS (2013) estimation that institutional sources account for only 64 per cent of outstanding agricultural credit casts further doubt on how much short-term credit is actually being absorbed in farm operations.

4. Scope for further expansion of institutional finance: What are the implications of the foregoing findings in terms of answering to the question that we asked at the outset? Is the agenda of expansion of institutional finance for agricultural credit unfinished? AIDIS 2013 would seem to indicate so. However, we have also found that the volume of short-term credit had already covered 100 per cent of the input cost in 2012-13, which may seem to signify that

that a state of saturation has been reached for institutional credit as far as short-term finance is concerned. AIDIS 2013 findings cannot be reconciled with the data on short-term credit as a proportion of total input cost. We surmise that one possible explanation for the apparent anomaly could be diversion of funds resulting from the arbitrage opportunity created by the huge subsidy of 5 percentage points on short-term agricultural credit. However, more research is needed to get at the truth, and until we are able to delve deeper into the matter, we must conclude that the jury is still out on the question of whether institutional finance for agricultural credit needs to expand more.

5. Rise in long-term credit and private capital formation: Long-term loans from institutional sources have also increased substantially, although their share of total institutional credit has registered a decline from 31.3 to 23.6 per cent between 1975-76 and 2011-12. In long-term credit, the main contribution has come from commercial banks, which accounted for almost 88 per cent of the credit in 2012-13. Long-term credit constituted 32.50 per cent of private capital formation in 1975-76 but in 2012-13, the share had risen to 57.62 per cent. However, the contribution of long-term credit to private capital formation has been fluctuating and there have been years (such as 1981-82 and 2006-07) in which such credit accounted for more than 80 per cent of private capital formation.

6. Rates of interest in institutional and non-institutional credit: As might be expected, the rates of interest on credit from institutional sources are much lower than on credit from non-institutional sources. According to the latest AIDIS Survey, in 2013, only 10 per cent of the outstanding debt to institutional sources attracted interest rates of more than 15 per cent, whereas the corresponding figure for outstanding dues from non-institutional sources was as much as 71 per cent. Further, the outstanding debt at rates above 30 per cent was only one per cent for institutional sources and more than 34 per cent for non-institutional sources. The non-institutional agencies seem to be flourishing even though they charge exorbitant interest rates.

Two points emerge from our analysis. First, there is some evidence that the lower interest rates charged by institutional sources may have had a moderating influence on the rate of interest charged by non-institutional sources. The proportion of outstanding cash dues at interest rates in excess of 30 per cent in loans taken from non-institutional sources seems to have fallen from 40 per cent in 2002-03 to 34.1 per cent in 2012-13. Second, non-institutional agencies advance a significant proportion of loans on an interest-free basis. This flexibility no doubt helps them to retain their hold on clients, who also carry the burden of usurious rates of interest.

7. Contribution of interest subvention to increase in agricultural credit: A number of factors have helped in expanding agricultural credit in the country. The most important of these has been increased banking facilities in rural areas through branches of commercial banks, bringing down the number of families served by each branch. The reach of banks has been increased further by the programmes of financial inclusion, in which banking correspondents are used to provide farmers with access to banking. Priority sector lending by commercial banks, initiatives like special agricultural credit plans and doubling of agricultural credit, introduction of the Kisan Card Scheme, linkage with self-help groups and micro-finance have all helped the process. There is no evidence of a link between the growth of agricultural credit and the credit subsidy

introduced in 2006-07. Analysis brings out the fact that the credit subsidy contributes a negligible amount to the farmer's profits from cultivation. On the other hand, the fact that the volume of crop loans is about to exceed the total input cost in Indian agriculture (including the cost of hired labour) gives credence to the suspicion of diversion of subsidised funds to non-agricultural uses. What increases the misgivings on this score is that a substantial proportion of the credit disbursements are being made from year to year in the months of January to March, after Rabi sowing has ended.

8. Impact of Generalised Loan Waivers: It is manifest that generalised loan waivers, which have been announced by governments from time to time, constitute a moral hazard and seriously impair the system as far as agricultural credit is concerned. Such waivers create expectations of future waivers of loan or interest payments and are a disincentive to pay back loans that farmers have obtained in the past. Expectations of rising defaults have led financial institutions to scale down their lending operations. General waivers have the potential to trigger a cycle of events that could dry up the channels of institutional credit. However, targeted action in which waivers are preceded by a case by case examination on merits may be an appropriate response to instances of distress in agriculture. The effectiveness of government intervention can be improved even more if waivers are part of a comprehensive package, including public investment and investment incentives, to alleviate distress.

Recommendations:

1. Review interest rate subvention on short-term credit: In view of the lack of identifiable benefits resulting from interest rate subvention and the emerging evidence that it could be leading to a diversion of subsidised agricultural credit for non-agricultural purposes, there is a strong case for a serious review of the policy.

2. Avoid generalised loan waivers: In view of their widely perceived adverse effects, there is a strong case for avoiding generalised loan waivers. Targeted action, where waivers follow a case by case examination of the merits of the case, however, can be an appropriate response, particularly if such action is part of a comprehensive package to address acute agricultural distress.

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