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Need and importance of institutional finance for agricultural development

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Abstract

Institutional finance plays a crucial role in agricultural development. Whether it is industry or agriculture, credit is necessary for development. With savings being negligible among the small farmers, agricultural credit appears to be an essential input along with modern technology for higher productivity. And it is small and marginal farmers who need the credit badly. The farmers have to depend to a large extent on the borrowed funds. Agricultural credit therefore, assumes a greater importance in the transformation of Indian Agriculture from traditional and subsistence farming to a scientific and modern farming. Hence agricultural credit appears to be an essential input along with modern technology for higher productivity. An important aspect that has emerged in last three decades is that the credit is not only obtained by small and marginal farmers for survival but also by the large farmers for enhancing their income. Therefore, since independence, credit has been occupying an important place in the strategy for development of agriculture. In view of these an attempt has been made to study the need and importance of institutional finance for agricultural development.

Keywords: Agriculture, Institutional Finance, Farmer, Agricultural Development.

1. Introduction

Credit is essential for agricultural development. The growth in national income has largely been determined the trends in agricultural production. The reason is that it contributes the share of 18 per cent of the net domestic product of India at current prices, provides employment and means of livelihood for over 60 per cent of the population and contributes to the extent of 27.7 per cent of the country's total exports. India lives in her villages is true even to this day India is a country of 5.76 lakhs villages and every four persons out of five are villages and every five out by six depend on agriculture and allied sector. About 35 per cent of the rural people are below the poverty line. The cause for the poverty is low level of technology in agriculture. Alleviation of rural poverty requires the adoption of modern technology in agriculture. But adoption of modern technology requires adequate credit facilities for all farmers, particularly those who have limited access credit markets. Rural development cannot be achieved off without providing adequate credit facilities.

Today, agriculture requires intensive application of Science and Technology through capitalization and mechanization. Under the impact of new developments in agricultural Science and Technology, and increasing commercialization of farming, agriculture is becoming costlier to the cultivator. The demand for modern inputs has increased considerably; consequently the credit requirements of the cultivator have gone up substantially.

The present system of agricultural credit in India consists of two sectors, viz., the institutional and non-institutional. The non-institutional sector consists of mainly of the professional and agricultural moneylender, landlords, commission agents, traders and the farmers, relatives and friends. The institutional sector mainly comprises of co-operatives, commercial banks, regional rural banks and governments.

The institutional credit to support agricultural and allied activities and to save the farming community from the clutches of exploiting money lenders is of great significance. Money-lenders are the most important source, of late, though their position is declining in non-institutional finance. They freely supply credit for productive and non-productive purposes. Their methods of business are simple and elastic. But their activities are full of short-comings. They charge very high interests rates. Indian agriculture which is described as gamble with rain is facing the various challenges such as crop loss, consecutive failure of monsoons, recurring droughts, mounting debts and lower production resulting too many farmers' suicides. Increasing the supply of agricultural commodities assumes Critical important in India in the

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context of rapidly growing population and high income elasticity of demand for agricultural commodities. Institutional finances an important engine of growth. The supply of credit to agriculture by banks however, resulted in lop sided development of agriculture. Number of studies also revealed that many factors like timely availability of quality seeds, fertilizers, irrigation facilities and etc. may influencing the agricultural production and productivity. But for all these, the timely availability of credit is most essential for the small and marginal farmers whatever the crop they produce. In view of the above, an attempt has been made to study the role of institutional finance for agricultural development.

Agricultural Finance

In fact that considerable progress has been made since Independence in the subject of agricultural development in terms of increase in crop production and productivity, technological developments, the credit for the same should not only to agricultural research, irrigation systems, and public policy on agriculture, but also to the impressive agricultural credit delivery systems through an extensive network of co-operative societies.

Low yield per unit area across major crops has become a regular feature of Indian agriculture in recent years. Some of the reasons for the low agricultural productivity in our country are (i) lack of sufficient irrigation facilities in major part of the cultivated land; (ii) lack of timely availability of quality seeds, fertilizers for the major crops in many parts of the country. Productivity of Indian agriculture is low as compared to the productivity at the global level. Estimates of yield of rice as of April 2013 in India was 3.12 tonnes per hectare as against 7.5 tonnes per hectare in the United States, 6.7 tonnes per hectare in China and an average of 4.3 tonnes per hectare for the World. Also many studies revealed that there is wide variation in productivity of major crops across the States/ Regions in India.

This study was mainly focused on the role of institutional finance for agricultural development in India. The time series data on institutional finance in India to agricultural development where collected from the published sources like; NABARD, Economic Survey, Handbook of Statistics on the Indian economy published by Reserve Bank of India, Report on trend and progress of banking in India, All India Debt and Investment Survey and NSSO.

Agricultural credit is accurately needed for modernization of agriculture and commercialization of rural economy having strong impact on the farming sector and it capability towards contribution of GDP. The share of agriculture in GDP is presented in table-1

Table 1: Share of agriculture in Gross Domestic Product (In Percentages)

Year	Share of agriculture in GDP
2005	20.5
2006	19.5
2007	17.4
2008	16.8
2009	15.8
2010	14.7
2011	14.5
2012	14.4
2013	13.7
2014	13.9

Source: NABARD, 2014-2015

Table-1 revealed that the share of agriculture towards the contribution of GDP is decreasing from 20.5% to 13.9% during the period 2005-2014. One of the main factor for this is it signifies the inadequate flow of institutional credit to gather the credit needs of agricultural sector. The following table-2 revealed that the changing scenario of Indian Agricultural credit in the course of decades.

Table 2: Agricultural credit disbursement by Institutional and Non-Institutional Agencies (in Percentages)

Credit Agency	Proportional in Total Borrowings in Percent						
	1951-52	1961-62	1971-72	1981-82	1991-92	2001-02	2011-12
Institutional Credit							
Government	3.3	2.6	7.1	3.9	5.7	5.3	5
Co-operatives Society/Banks	3.1	15.5	22.0	29.9	23.6	27.3	24.8
Commercial Banks & RRBs	0.9	0.6	2.6	29.4	35.9	24.5	16.4
Institutional Credit (Total)	7.3	18.7	31.7	63.2	66.4	57.1	46.2
Non-Institutional Credit							
Landlords	1.5	0.6	8.1	3.6	3.7	2.2	10
Agricultural Moneylender	24.9	36.0	23.0	8.3	6.8	8.1	8.2
Professional Moneylender	44.8	13.2	13.1	7.8	10.7	21.5	25.8
Traders & Commission Agents	5.5	8.8	8.4	3.2	2.2	3.2	5
Relatives & Friends	16.2	8.8	13.1	8.7	4.6	6.7	3
Others	1.8	13.9	2.6	5.2	2.6	1.2	1.8
Non-Institutional Credit(Total)	92.7	81.3	68.3	36.8	30.6	42.9	53.8
All agencies	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: 1. All India Credit and Investment Survey; 2. All India Debt and Investment Survey and NSSO; 3. Economic Survey

Table-2 revealed that the grip of non-institutional credit agencies during 1951-1971 and institutional credit agencies during 1981-2012. It is also concluded from the above figures that the government has taken necessary steps to increase the agricultural credit through the institutional agencies from 1981-82. Among institutional sources co-operatives societies share is as high as commercial banks and Regional Rural Banks.

The share of non-institutional credit is decreasing from 1981-82 onwards. It was very high at 92.7 in 1951-52 but afterwards the share of the non-institutional agencies was decreasing at a faster rate. But in 2011-12 the share of non-institutional agencies was rose to 53.8 per cent, whereas the share of institutional agencies was only 46.2 per cent.

Table 3: Year wise Institutional Credit to Agriculture (Rs. Crore)

Year	Co-operative Banks	% Share	Regional Rural Banks	% Share	Commercial Banks	% Share	Total
1985-86	3874	55.3	--	-	3131	44.7	7005
1986-87	4207	52.48	--	-	3809	47.52	8016
1987-88	4420	52.44	--	-	4009	47.56	8429
1988-89	4851	53.4	--	-	4233	46.6	9084
1989-90	5082	51.85	--	-	4719	48.15	9801
1990-91	3408	38.52	--	-	5438	61.47	8846
1991-92	5800	51.78	596	5.32	4806	42.9	11202
1992-93	9378	61.82	831	5.48	4960	32.7	15169
1993-94	10117	61.34	977	5.92	5400	32.74	16494
1994-95	9406	50.18	1083	5.78	8255	44.04	18744
1995-96	10479	47.56	1381	6.27	10172	46.17	22032
1996-97	11944	45.22	1684	6.38	12783	48.4	26411
1997-98	14085	44.08	2040	6.38	15831	49.54	31956
1998-99	15916	43.14	2538	6.88	18443	49.99	36897
1999-00	18363	39.69	3172	6.86	24733	53.46	46268
2000-01	20801	39.38	4219	7.99	27807	52.64	52827
2001-02	23604	38.04	4854	7.82	33587	54.13	62045
2002-03	23716	34.09	6070	8.73	39774	57.18	69560
2003-04	26959	30.99	7581	8.72	52441	60.29	86981
2004-05	31424	25.08	12404	9.9	81481	65.02	125309
2005-06	39404	21.83	15223	8.43	125859	69.73	180486
2006-07	42480	18.52	20435	8.91	166485	72.57	229400
2007-08	48258	18.95	25312	9.94	181088	71.11	254658
2008-09	45966	15.24	26765	8.87	228951	75.89	301682
2009-10	63497	16.51	35217	9.16	285800	74.33	384514
2010-11	70105	15.69	43968	9.84	332706	74.47	446779
2011-12	86185	16.93	54239	10.66	368616	72.41	509040
2012-13	111203	18.3	63681	10.48	432491	71.21	607375
2013-14	118422	16.37	83307	11.52	521496	72.11	723225

Source: Economic Survey and NABARD various issues

Table 4: ACGR of Institutional Credit to Agriculture

Type of Institution	Period – I: 1991-92 to 2000-01		Period – II: 2001-02 to 2013-14		Total Period – III: 1991-92 to 2013-14	
	ACGR	t-val.	ACGR	t-val.	ACGR	t-val.
Co-operative Banks	12.00	9.93	12.50	15.56	11.90	34.38
Regional Rural Banks	20.50	33.69	24.70	19.80	22.90	54.22
Commercial Banks	21.40	19.80	26.90	16.08	23.70	42.21
Total	16.70	28.14	23.20	19.80	19.60	42.21

From the table-3, it is clear that the share of the Co-operative banks, with regard to credit disbursement since from 1991(51.78%) have lost their dominant position to 16.37 per cent in 2013-14, whereas the share of commercial banks rises from 42.90 per cent in 1991-92 to 72.11 per cent in 2013-14. But there is no much change in the share of the Regional Rural Banks during the period 1991-92 to 2013-14.

The Annual Compound Growth Rates are calculated for the three periods, 1991-92 to 2000-01; 2001-02 to 2013-14 and the total period 1991-92 to 2013-14 are presented in table-4, and it is concluded that the Annual Compound Growth Rates for the period – I (1991-92 to 2000-01) is less than the period – II (2001-02 to 2013-14) indicating that the government has taken steps to increase the flow of Agricultural Credit. For the overall period – III, Annual Compound Growth Rates are also calculated and they are statistically significant.

Trends in Agricultural Area, Production and Yield

Agriculture growth has remained lower than the growth rates witnessed in the industrial and services sectors. The gap between the growth of agriculture and non-agriculture sector began to widen since 1981-82 and more particularly since

1996-97, because of acceleration in the growth of industry and services sectors. Even though the share of agriculture in GDP has declined over the years, the number of people dependent on agriculture for their food and livelihood has remained unchanged. Therefore, a number of measures were taken by the Reserve Bank and the Government of India for facilitating increased credit flows to the agriculture sector.

Volatility in agricultural production has not only affected overall growth but also exerted persistence pressure on maintaining low and stable inflation. Demand-supply gaps were reflected in higher domestic food prices in recent years. The production of agriculture crops, besides the weather-induced fluctuations, significantly depends on the availability of inputs like fertilizers, irrigation, certified seeds, credit support and appropriate price signals. Minimum support prices indicated upfront and before the sowing seasons act as effective incentives for acreage response of the agricultural crops. Deviations in food grains and agricultural output from their long-term trends are determined, among other factors, by variations in monsoon around its long-term trend and the area under irrigation.

Table 5: Annual Compound Growth Rates of Area, Production, Yield of Agricultural Crops and Credit during the period 1985-86 to 2013-14

Study Periods	Growth	Area	Production	Yield	Total Credit to Agriculture
Period-I (1985-86 to 1992-93)	ACGR	0.5909	4.2992	2.8824	8.6935
	t-val.	1.48	4.89	4.60	5.13
Period-II (1993-94 to 2003-04)	ACGR	-0.3693	0.5053	0.8735	16.7467
	t-val.	-1.36	1.09	3.05	10.16
Period-III (2004-05 to 2013-14)	ACGR	1.0334	4.3214	3.2998	19.1232
	t-val.	4.61	4.13	3.61	16.82

From the table-5, the growth rates of area for the periods I and II are not statistically significant indicating that there is no much disbursement of credit to the agriculture during those periods. It is noticed from the above table that the growth of area during the period 2004-2014 is statistically significant implying that the credit disbursing is more in that period. The

calculated t-values for the yield and credit disbursement for all are periods are significant. Particularly the growth (16.7 per cent) of credit disbursing to agriculture is more during the period 2004-2014 compared to the previous periods. The growth of yield is also more during that period.

Table 6: Regression Analysis of Impact of Credit on Area, Production and Yield

Study Periods	Results	Impact of Credit		
		Area	Production	Yield
Period-I (1985-86 to 1992-93)	Regression Coefficient	0.0386	0.3658	0.2509
	R ² -value	0.1061	0.5373	0.5476
	t-value	0.8439	2.6397	2.695
Period-II (1993-94 to 2003-04)	Regression Coefficient	-0.0208	0.0319	0.0526
	R ² -value	0.1524	0.1298	0.5187
	t-value	1.2721	1.1586	3.1144
Period-III (2004-05 to 2013-14)	Regression Coefficient	0.0532	0.2318	0.1788
	R ² -value	0.7629	0.7789	0.7409
	t-value	4.3742	4.6257	4.2290
Period-IV (1993-94 to 2013-14)	Regression Coefficient	0.0194	0.1152	0.0872
	R ² -value	0.3456	0.7428	0.7901
	t-value	3.0016	7.1259	8.2490

From table-6, it is evident that the coefficient of determination (R²) of area is very low for the periods I and II, indicating that there is no impact of credit on acreage. Whereas, for the periods III and IV, the coefficient of determinations (R²) are statistically significant implying that there is a significant impact of credit on the acreage. It explains that the Government has taken steps to increase the disbursement of credit during the period 2004-05 to 2013-14. The coefficient of determinations of production for the periods I, III and IV are significant, but for the period-II is not significant implying that the disbursement of credit in that period is compared low. The coefficients of determinations (R²) of yield for all the four periods are significant, implying that there is a significant impact of credit on the yield of the agricultural crops. Hence, it is concluded that the agricultural credit plays an important role in production and productivity of agricultural crops.

Conclusion

The growth of direct finance to agriculture witnessed a decline in the 1990's as compared to 1980's and 1970's. The Government of India announced a host of measures in June 2004 to double the flow of agriculture credit by all the financial institutions. To prevent and save the farmers from the clutches of private money lenders, several measures were taken by the Government of India. Banks were advised to increase the agricultural credit flow at the rates of 30 per cent per year. Inspire of all, many analysis are revealed that the credit delivery to the agriculture sector continuous to be inadequate. The banking system is still appears hesitant on various grounds to purvey credit to small and marginal farmers.

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