

RESEARCH PAPER

Impact of interest free crop loan scheme existing in cooperatives in Belagavi district

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Abstract: In modern agriculture, short term/crop loan plays a major role in addressing farming needs. Since 2012-13, Government of Karnataka has been pursuing the policy of supplying crop loan of up to ₹ 3,00,000 to the farm operators at zero per cent interest through cooperatives to provide financial backing to farmers. In this context, the present study analyses the performance of interest free crop loan scheme existing in cooperatives in Belagavi district. The year wise secondary data on the sources of funds, number of farmers applied for crop loan, loan amount demanded and advanced, recovery of crop loans were obtained from the Head office of District Central Cooperative Bank (DCCB), Belagavi and used to analyse the progress before and after introduction of interest free crop loan scheme. The analytical tools used in the study were Compound Annual Growth Rate and Descriptive statistics. The total funds of District Central Cooperative Bank, Belagavi exhibited annual growth rate of 13.66 per cent. The average annual share of agricultural loans was 49.78 per cent in the total loans. The total agricultural advances grew at 14.73 per cent with short term loans showing a positive growth (15.04 %) and the medium term loans showing negative growth (17.11 %). The number of applications for crop loans increased when the crop loan became interest free. Also, the average annual demand for crop loan increased from ₹ 47,842 lakhs (2006-07 to 2011-12) to ₹ 1,13,573 lakhs (2012-13 to 2017-18). The proportion of demand for interest free loan, which was actually met, was as high as around 98 per cent per annum and loan recovery was about 99 per cent.

Key words: Crop loan, District central co-operative bank, Loan advances, Loan recovery

Introduction

The modern agriculture depends on several factors such as irrigation, infrastructure, availability of good quality seeds, fertilizers, pesticides, farm machinery, value addition opportunities, etc. Farmers' need for finance will be more pressing for short term credit or crop loan as they have to procure inputs like seeds, fertilizers, pesticides *etc.* in time before sowing season. Sufficient and timely access to these inputs depends to a great extent on farmers' financial conditions. Majority of the Indian farmers are small and marginal farmers (85 %) whose economic conditions do not permit them to apply farm inputs in time. In this context, agriculture credit is a critical input to assist and sustain crop production. Non-institutional sources such as money lenders, friends, relatives, commission agents and traders provide the credit for purchase of inputs, but sources are unreliable, highly expensive and exploitative. Hence, a multi-agency strategy has been established to provide institutional credit to farmers that include cooperative banks, scheduled commercial banks and regional rural banks (RRBs) to enable credit to the agricultural sector.

The cooperative credit system is the oldest form of institutional credit in India, which was evolved as a solution to the financial crisis of farmers, and comprises of short, medium and long term credit segments. Short term credit segment is a three tier structure with Primary Agricultural Credit Societies (PACS) in rural areas, District Central Co-operative Banks (DCCB) at the district level and the Karnataka State Co-operative Apex Bank at the state level. Though the percentage share of cooperatives in the total advances for agriculture and allied sectors has declined over years, the cooperative segment

still assumes its importance as a grass root level source of agricultural finance for farmers at low interest rates.

Karnataka's economy is largely dependent on agriculture, with more than 65 per cent of the people involved in the agricultural sector. To provide farmers with financial backing, Government of Karnataka has been pursuing the policy of supplying crop loan to the farm operators at zero per cent interest through cooperatives since 2012-13. During the year 2012-13, the state government announced a scheme under which farmers could avail short term finance of up to ₹ 1,00,000 at no interest. During 2013-14, the quantum of agricultural credit at zero per cent interest was raised from ₹ 1,00,000 to ₹ 2,00,000. From 2014-15, the ceiling of interest free short term loan lent by cooperatives has been raised to ₹ 3,00,000 which is still continuing. A farmer has to enroll himself as member in the PACS by paying a membership fee and producing land records, and then they are eligible to avail crop loan under Kisan Credit Card scheme. He will have to apply for sanction of NCL (Normal Credit Limit) for three years. Quantum of loan requirement will be ascertained based on the land holding and crop grown in the land. Scale of finance refers to the maximum credit limit for all major agricultural and horticultural crops per acre in the district and is fixed by the district level technical committee consisting of NABARD district level officer, lead bank officer, officers from the Department of Agriculture, Horticulture, Fishery, Sericulture, Cooperation and farmers and convened by District Central Cooperative Banks. Crop insurance is compulsory for a farmer to avail crop loan. By renewing the KCC Account, paying the crop insurance and personal accident

insurance premium every year, a farmer can minimize the risk of yield loss occurred due to seasonal weather fluctuation. The interest free crop loan scheme of the state Government implemented through DCC banks is highly attractive for the farming community and such loans are not available either through commercial banks or regional rural banks. Thus, it would be interesting to analyze the impact of interest free crop loan scheme implemented through cooperatives. The present study is an attempt in this direction with respect to Belagavi district.

Material and methods

The present study relates to Belagavi district which accounts for highest net irrigated area among the seven districts that fall under jurisdiction of University of Agricultural Sciences, Dharwad. The year wise secondary data on the sources of funds, loans advanced by DCC Bank, number of farmers applied for crop loan, loan amount demanded and advanced, recovery of crop loans were obtained from the Head office of District Central Cooperative Bank, Belagavi which were used to analyse the growth before and after introduction of interest free crop loan scheme. The analytical tools used in the study were compound annual growth rate and descriptive statistics. The growth rate analysis was undertaken for number of applicants of crop loan, loan amount demanded and advanced, loan recovery over years before and after the introduction of interest free crop loan scheme. The following model was specified for the purpose.

$$Y_t = AB^t e^{U_t} \dots \dots \dots (1)$$

Where,

Y_t = Dependent variable (number of application for crop loan, loan amount demanded and advanced, loan recovery) in time period 't'

A = Y in the base year

t = Time period

u_t = Error term

$B = 1+g$ where g=growth rate

By applying logarithm, equation (1) was reduced to the following form,

$$\log Y_t = \log A + (\log B) t + U_t \dots \dots \dots (2)$$

Defining

$$Q_t = \log Y_t$$

$$X_t = t$$

$$\alpha = \log A$$

$$\beta = \log B$$

Equation (2) could be rewritten as follows:

$$Q_t = \alpha + \beta X_t + U_t \dots \dots \dots (3)$$

Above equation was estimated using OLS.

Once the above equation is estimated, g was computed as:

$$g = [\text{Antilog } () - 1] * 100$$

Results and discussions

Sources of funds of DCC Bank

The sources of funds of DCC Bank consisted of both owned funds and borrowed funds. While share capital and reserves constituted owned funds, deposits and loans constituted borrowed funds. Over a period of ten years from 2008-09 to 2017-18, there has been positive growth in all these components of total funds of the DCC Bank. The share capital which was around ₹ 4,626 lakhs in 2008-09, grew at a compound annual growth rate of 11.94 per cent upto 2017-18 (Table 1). Similarly, the reserves, deposits and loans grew at 6.46 per cent, 13.52 per cent and 14.78 per cent per annum respectively during the ten years period. The total funds, which were of the magnitude of ₹ 1,73,955.53 lakhs in 2008-09 grew at compound annual growth rate of 13.66 per cent and reached to ₹ 5,77,861 lakhs in 2017-18. Deposits and loans contributed more than 90 per cent of the total funds of DCC Bank. The rapid growth of funds was due to business network development and improvement in credit recovery.

Table 1. Sources of Funds of District Central Cooperative Bank, Belagavi (₹ in lakhs)

Year	Owned funds		Borrowed funds		Total
	Share capital	Reserves	Deposits	Loans	
2008-09	4,626.17	12,485.56	78,899.28	77,944.52	1,73,955.53
2009-10	5,228.00	12,909.00	1,12,421.00	92,786.00	2,23,344.00
2010-11	5,607.00	13,399.00	1,20,461.00	95,054.00	2,34,521.00
2011-12	5,871.00	14,004.00	1,31,214.00	1,22,418.00	2,73,507.00
2012-13	6,328.00	14,851.00	1,60,781.00	1,44,081.00	3,26,041.00
2013-14	7,104.00	16,122.00	1,71,032.00	1,52,469.00	3,46,727.00
2014-15	8,314.37	17,470.12	1,92,375.43	1,88,848.71	4,07,008.63
2015-16	9,660.03	18,509.90	2,15,740.52	2,19,871.26	4,63,781.71
2016-17	11,573.17	19,744.74	2,38,730.62	2,31,093.03	5,01,141.56
2017-18	12,803.00	21,746.00	2,84,198.00	2,59,114.00	5,77,861.00
Average	7,711.47(2.19)	16,124.13(4.57)	1,70,585.29(48.35)	1,58,367.95(44.89)	3,52,788.84(100.00)
CAGR	11.94*	6.46*	13.52*	14.78*	13.66*

Figures in the parentheses are percentages to the overall average in the last column,

* Significant at 5% level

Impact of interest free crop loan scheme existing in

Table 2. Loans advanced by DCC Bank, Belagavi (₹ in lakhs)

Year	Total loan	Agricultural loans		
		Short-term loan	Medium-term loan	Total
2008-09	77,945.00 (100.00)	43,260.00 (55.50)	856.55 (1.10)	44,116.55 (56.60)
2009-10	92,786.00 (100.00)	49,389.51 (53.23)	1,531.61 (1.65)	50,921.12 (54.88)
2010-11	93,139.64 (100.00)	54,200.66 (57.02)	849.41 (2.91)	55,050.07 (59.93)
2011-12	1,21,299.89 (100.00)	63,582.36 (51.94)	753.57 (1.53)	64,335.93 (53.47)
2012-13	1,43,628.64 (100.00)	74,245.89 (51.53)	709.10 (0.81)	74,954.99 (61.99)
2013-14	1,52,569.00 (100.00)	93,988.87 (61.60)	582.27 (0.38)	94,571.14 (61.99)
2014-15	1,88,849.00 (100.00)	1,06,237.37 (56.26)	402.43 (0.21)	1,06,639.80 (56.47)
2015-16	2,19,871.00 (100.00)	1,22,489.03 (55.71)	145.48 (0.07)	1,22,634.51 (55.78)
2016-17	2,31,093.00 (100.00)	1,33,893.20 (57.94)	150.77 (0.07)	1,34,043.97 (58.00)
2017-18	2,59,114.00 (100.00)	1,35,608.19 (52.34)	559.17 (0.22)	1,36,167.36 (52.55)
Average	1,58,029.52 (100.00)	87,689.51 (49.41)	654.04 (0.37)	88,343.54 (49.78)
CAGR (%)	12.11*	15.04*	-17.11*	14.73*

Figures in the parentheses are percentages to the total loan, * Significant at 5 % level

Loans advanced by cooperatives

The amount of total loans advanced by district central cooperative bank, Belagavi are presented in Table 2. During a period of ten years from 2008-09 to 2017-18, the average loan amount advanced by DCC Bank, Belagavi amounted to ₹ 1,58,229.52 lakhs per annum. In this, the average share of agricultural loans was 49.78 per cent with short term and medium term loans accounting for 49.41 per cent and 0.37 per cent, respectively. Over the years, total loan of DCC Bank registered a positive growth of 12.11 per cent annually. While total agricultural loans showed 14.73 per cent growth, short term agricultural advances showed a positive growth rate of 15.04 per cent annually, while the medium term agricultural loans

declined over years showing negative growth of 17.11 per cent annually. The rising trend in crop loan was due to banks focusing more on small and marginal farmers who needed finance to meet crop input requirement.

Crop loan advanced by cooperatives prior to interest free crop loan scheme

Introduction of interest free crop loan scheme through cooperatives in the year 2012-13 was an important event in the advance of short term agriculture loans through cooperative system. As such, the trend in crop loan advances through cooperatives was analyzed separately prior to and after the introduction of interest free crop loan system. Table 3 presents the amount of crop loan advances through primary agricultural cooperative societies in Belagavi district prior to introduction of interest free crop loan scheme. It is clear from the table that average number of applicants per year for crop loan through cooperatives during the period between 2006-07 to 2011-12 was ₹ 2,25,873 in the district. On an average, more than 99 per cent of the applicants were sanctioned crop loan. The average amount of loan demanded per year during this period was ₹ 47,842.55 lakhs. It can be seen from the table that, on an average, as much as 95.36 per cent of the demanded amount was disbursed per annum. The loan recovery situation was quite high in that, on an average, around 93 per cent of the loan advanced was recovered. It can be seen from the table that the number of applicants for crop loan, number of applicants who were advanced, the amount of loan demanded, the amount of loan disbursed and the amount of loan recovered grew at compound annual growth rate of 9.01 per cent, 9.27 per cent, 16.79 per cent, 16.53 per cent and 20.76 per cent respectively during the above period. This was achieved as a result of the serious steps taken by the bank, which included recruitment of special task force for loan recovery.

Interest free crop loan scheme of cooperatives

The average number of applicants for interest free crop loan in Belagavi district during the period from 2012-13 to 2017-18 was 3,26,821 per annum. The Table 4 shows that on an average, every year, 98 per cent of the applicants were advanced interest free crop loans. The amount of total interest free crop loan demanded in Belagavi district kept on increasing

Table 3. Crop loans advanced through Primary Agricultural Cooperative Society (PACS) in Belagavi district prior to interest free crop loan scheme

Year	No. of applicants	No. of applicants advanced loan	Amount of loan demanded (₹ in lakhs)	Amount of loan disbursed (₹ in lakhs)	Amount of loan recovered (₹ in lakhs)
1	2	3	4	5	6
2006-07	1,92,684	1,90,736 (98.99)	32,847.04	29,933.00 (91.13)	23,730.28 (79.27)
2007-08	1,95,023	1,92,736 (98.83)	33,919.01	33,377.41 (98.40)	30,818.46 (92.33)
2008-09	1,96,989	1,96,813 (99.91)	44,367.04	43,260.00 (97.50)	38,087.96 (88.04)
2009-10	2,20,349	2,17,955 (98.91)	49,389.51	49,389.51 (100.00)	46,326.35 (93.80)
2010-11	2,60,381	2,58,248 (99.18)	55,956.26	54,200.66 (96.86)	55,417.17 (102.24)
2011-12	2,89,812	2,89,774 (99.99)	70,576.46	63,582.36 (90.09)	60,106.93 (94.53)
Average	2,25,873	2,24,377 (99.19)	47,842.55	45,623.82 (95.36)	42,414.53 (92.96)
CAGR (%)	9.01	9.27	16.79	16.53	20.76

Figures in the parentheses in column (3) indicate percentages to the column (2)

Figures in the parentheses of column (5) indicate percentages to the column (4)

Figures in the parentheses of column (6) indicate percentages to the column (5)

Table 4. Interest free crop loans advanced through PACS in Belagavi district

Year	No. of applicants	No. of applicants advanced loan	Amount of loan demanded (₹ in lakhs)	Amount of loan disbursed (₹ in lakhs)	Amount of loan recovered (₹ in lakhs)
1	2	3	4	5	6
2012-13	2,84,325	2,73,508 (96.20)	82,806.34	74,245.89 (89.66)	72,210.98 (97.25)
2013-14	3,11,957	3,10,742 (99.61)	96,417.14	93,988.87 (97.48)	95,818.86 (101.94)
2014-15	3,21,496	3,18,476 (99.06)	1,06,574.62	1,06,237.37 (99.68)	1,04,981.34 (98.82)
2015-16	3,40,862	3,35,360 (98.39)	1,22,773.82	1,22,489.03 (99.77)	1,22,173.55 (99.74)
2016-17	3,48,246	3,42,006 (98.21)	1,34,574.42	1,33,893.2 (99.49)	1,31,145.33 (97.95)
2017-18	3,54,042	3,44,235 (97.23)	1,38,290.00	1,35,608.19 (98.06)	1,37,165.03 (101.15)
Average	3,26,821	3,20,721(98.13)	1,13,572.72	1,11,077.09 (97.80)	1,10,582.52 (99.55)
CAGR (%)	4.33	4.35	11.17	12.80	13.08

Figures in the parentheses in column (3) indicate percentages to the column (2)

Figures in the parentheses of column (5) indicate percentages to the column (4)

Figures in the parentheses of column (6) indicate percentages to the column (5)

from one year to another with annual growth rate of 11.17 per cent. The proportion of demand for loan, which was actually met, was as high as around 98 per cent per annum during the above period. The loan recovery percentage was almost 100 per cent on an average. It may be noted that the recovery percentage for 2013-14 and 2017-18 was shown to be more than 100 per cent, which only meant that during those two years, recovery of the previous years' loans pushed up the recovery percentage.

It can be clearly seen from Table 3 and Table 4 that the average number of applicants for crop loan increased from 2,25,873 to 3,26,821 when the crop loan became interest free. Also, the average annual demand for crop loan increased from ₹ 47,842 lakhs to ₹ 1,13,573 lakhs between two periods. There was improvement in loan recovery because in case of sugarcane, loans were directly recovered from the sugarcane bill and also staff made some efforts to recover the crop loans within a year to get the benefit of interest subsidy from Government of Karnataka for interest free loans. Also, the average number of farmers applying for crop loan and the amount of loan demanded was observed to be much higher when the loan became interest free. This was the result of

farmers' awareness about the scheme and easy access of PACS loan.

Conclusion

It is observed from the study that, the deposits and borrowed loans were the major sources of funds for advancing crop loans by DCC Bank which had share of more than 90 per cent in the total funds. Out of total loans advanced by the DCC Bank, about 50 per cent of the loans advanced were agricultural loans in which short term loans had the maximum share with negligible share of medium term loans. The average numbers of applications for crop loan increased when the crop loan became interest free. Also, the average annual demand for crop loan increased from ₹ 47,842 lakhs to ₹ 1,13,573 lakhs between two periods. The proportion of demand for loan, which was actually met, was as high as around 98 per cent per annum when the loan was interest free. The loan recovery percentage was almost 100 per cent on an average. From the above findings of the study, it can be mentioned that the impact of interest free crop loan scheme through cooperative was better compared to the scheme of crop loan with interest in terms of number of applications for loan, proportion of demand met and the recovery percentage of crop loan.

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