

Original Research Article

Agency wise Institutional Advances for Agriculture and Allied Activities in North Karnataka with Special Emphasis on Investment Credit

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ABSTRACT

The present study has analyzed the agency wise institutional advances for agriculture and allied activities in North Karnataka for the last 13 years i.e. 2005-06 to 2017-18. Secondary data with respect to agency wise disbursement of agricultural credit in general and investment credit in particular from various financial institutions for North Karnataka were collected from various sources like district lead banks, NABARD, books and journals for the period 2005-06 to 2017-18. It was found that the commercial banks having maximum share in the total investment credit for agriculture by institutional agencies is not surprising as the commercial banks with their wide branch networking and strong capital base, occupy first position in the total agricultural lending in the study area. Also, the demand for investment in farm mechanization and minor irrigation activities is more in North Karnataka region as compared to remaining investment activities during a given period of time.

Keywords

Agricultural credit,
institutional
advances,
investment loan,
North Karnataka,
short term loan

Introduction

Agriculture is the backbone of Indian economy. The prosperity of the country depends upon the agriculture sector. It plays a strategic role in the economic life of the Indian society. In the Indian economy, agriculture contributes approximately 17 to 18 per cent of the national income. Sixty percent of the export values directly or indirectly originate from agriculture. Therefore, a need arises to sustain and develop agriculture sector by providing necessary credit to all those farmers who require it for carrying out various activities of this vital primary sector. Since the farmer families in general have hardly any savings to fall back on, credit enables them to

advantageously use seeds, fertilizers, irrigation, machinery, etc. in farming. There is an ever increasing need to invest in agriculture due to a drastic rise in global population and changing dietary preferences of the growing middle class in emerging markets towards higher value agricultural products.

In addition, climate risks increase the need for investments to make agriculture more resilient to such risks. Estimates suggest that demand for food will increase by 70% by 2050 and at least \$80 billion annual investments will be needed to meet this demand, most of which needs to come from the private sector. There are different types of investment activities in agriculture like minor

irrigation, farm mechanization, land development, dairy development, poultry, sheep goat and piggery, fishery, forest and waste land development, storage godown and market yard, biogas and sericulture etc. Declining proportion of investment in these activities is an issue of serious concern for agriculture in India as such a trend constrains the capacity building in agriculture and generation of satisfactory farm income in the long run.

There are different financial institutions such as commercial banks, cooperative banks and regional rural banks which provide long term loan and investment credit under above different components in agriculture. Farmers can easily get investment credit for any of these investment activities from any of these financial institutions at a cheap rate of interest. But, it is being contended that farmers are not coming forward for using such long term loan facilities for investment on their farms. The probable reason could include farmers' unwillingness to take risk by investing huge amounts in the farm in the face of unfavorable climatic conditions which often lead to crop failure. Also, farmers are not sure about getting good access to markets, and fetching remunerative prices for their produce. The present study is an attempt to address the issues of trends in investment credit, changing structure of investment credit, returns to investment in farming etc. with a focus on North Karnataka region in Karnataka state.

Materials and Methods

Secondary data with respect to agency wise disbursement of agricultural credit in general and investment credit in particular from various financial institutions for North Karnataka were collected from various sources like district lead banks, NABARD, books and journals for the period 2005-06 to 2017-18.

Analytical framework

The collected data were analyzed to compute averages, percentages, compound annual growth rates and instability index

Growth rate analyses

In order to analyze growth in total loan advances in study area, the following model was estimated:

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

Where,

Y_t = Credit disbursed during time t

A = Y in the base year

t = Time period

U_t = Error term

B = 1+g where g = growth rate

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

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

Where $\ln A$ and $\ln B$ were obtained by Ordinary Least Square (OLS) method

Once the above equation is estimated, g can be computed as:

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

The estimated growth rates was tested for its significance using 't' statistic.

Instability index

Instability index was used to examine the extent of variation and risk involved in the disbursement of institutional advances (crop loan and investment loan) to agriculture and allied activities. In order to study variability, an instability index was used as a measure of variability. The coefficient of variation (CV) was calculated by using the following formula:

$$CV (\%) = \frac{\text{Standard deviation}}{\text{Mean}} \times 100$$

The trend coefficient was tested for its significance. Whenever, the trend coefficient was found to be significant, the variation around the trend rather than variation around mean was used as an index of instability. The formula suggested by Cuddy and Della (1978) was used to complete the degree of variation around the trend.

$$\text{Instability index} = CV \times \sqrt{1 - R^2}$$

Where,

CV = Coefficient of variation

R² = Coefficient of multiple determination obtained from the time series

It is a better measure to capture instability in the disbursement of institutional advances to agriculture sector. A low value of this index indicates the low instability.

Results and Discussions

Table 1 presents the flow of crop loan and investment loan for agriculture and allied activities in North Karnataka for the period of 2005-06 to 2017-18. It was observed from the table that the total agricultural advances in North Karnataka including crop loan and investment loan increased from ₹ 4,167.24 crores during 2005-06 to ₹ 30,623.10 crores during 2017-18, with a growth rate of 20.01 per cent during the study period. Also, the advances of crop loan, increased from ₹ 3,222.10 crores during 2005-06 to ₹ 20,765.86 crores during 2017-18, with a growth rate of 20.00 per cent. Similarly, investment loan advances increased from ₹ 945.14 crores to ₹ 9,857.24 crores during the same period, with a growth rate of 19.58 per cent. The rate of growth in crop loan, investment loan and total agricultural

advances for North Karnataka was 20 per cent, 19.58 per cent and 20 per cent respectively (Fig. 1).

Table 2 provides a picture of agency wise flow of institutional credit for agriculture and allied activities in North Karnataka. It can be seen from the table that the average annual amount of crop loan and investment loan advanced by commercial banks between 2005-06 and 2017-18 was ₹ 5,461.46 crores and ₹ 2,263.43 crores respectively. Further, it can also be seen from the table that the annual growth rate in crop loan and investment loan of commercial banks was 25.40 per cent and 19.24 per cent respectively, these growth rates were significant. With respect of cooperative banks the average annual amount of crop loan during the above period was ₹ 3,164 crores; while average annual amount of investment loan was ₹ 366 crores. In this case also the growth in crop loan and investment loan was significant at around 16 per cent and 20 per cent respectively. In the case of RRBs, average annual amount of crop loan was ₹ 2,169.48 crores, while that of investment loan was ₹ 816.05 crores. The growth rates were statistically significant.

Table 3 depicted the results for the agency wise share of total institutional credit for agriculture and allied activities in North Karnataka. The average annual share of commercial banks was 50.43 per cent, followed by cooperative banks (26.42 %) and RRBs (23.15 %) during the study period in North Karnataka. It clearly shows that commercial banks had a bigger role in disbursement of agricultural credit as compared to the other two financial agencies in North Karnataka.

Table 4 presents agency wise share of investment credit for agriculture and allied activities in North Karnataka for the period of

13 years. The average annual share of commercial banks in total investment credit advanced in North Karnataka was 65.80 per cent during the study period. The average annual share of cooperative banks and RRBs were 10.84 per cent and 23.36 per cent respectively. So the results concluded that commercial banks had much bigger share in disbursement of investment credit in North Karnataka during the above period followed by RRBs and cooperative banks.

Table 5 presents the flow of total institutional investment credit for agriculture and allied activities in North Karnataka for the period of 2005-06 to 2017-18. It was observed that the investment credit for all the activities except biogas and sericulture showed significant positive growth rate during the study period. The highest growth rate observed was for sheep goat and piggery activities (35.91%) and the lowest growth rate was in storage godown and market yard (10.60%). The overall growth rate of investment credit for agriculture and allied activities in North Karnataka was 19.58 per cent. Minor irrigation as a single activity found to be having highest average annual amount of investment credit (₹ 649.74 crores) followed by farm mechanization, land development, plantation and horticulture and storage godown and market yard with average annual amount of ₹ 564.47 crores, ₹ 345.33 crores, ₹ 288.10 crores and ₹ 270.59 crores respectively.

Table 6 presents the percentage shares of various investment activities in the total investment credit during the period 2005-06 to 2017-18. Farm mechanization and minor irrigation were two single activities which accounted for maximum share in the total investment credit (19.97% and 12.36%)

advanced by commercial banks. This may be because of a large number of schemes, subsidies and refinance available for farm mechanization and minor irrigation and farmers' desire to avail them due to labour scarcity and uncertainty of rains.

Table 7 depicts that the percentage shares of various investment activities listed in the table have fluctuated over the years during the period 2005-06 to 2017-18. It can be noticed that farm mechanization and minor irrigation were two single activities which accounted for maximum share in the total cooperative investment credit (23.86%) and (13.82%). It was also observed that the group 'others' accounted for 20.34 per cent of cooperative investment credit advances per year on an average. However, it is not a single activity as the group consists of many individual activities indicated in the footnote. So, in respect of cooperative banks also, farmers were attracted more towards investment in farm mechanization and minor irrigation activities like in the case of commercial banks.

Table 8 presents the share of various investment activities in the total institutional investment credit advanced by RRBs in North Karnataka for the period of 13 years. It was observed that the minor irrigation and farm mechanization were two single activities which accounted for maximum share in the total institutional investment credit. It may be recalled that similar results were observed for commercial banks and cooperative banks. So, it can be concluded that in respect of North Karnataka region, these two investment activities accounted for highest shares in total investment credit for agriculture.

Table.1 Flow of crop loan and investment loan for agriculture and allied activities in North Karnataka

Years	Crop loan	Investment loan	Total
2005-06	3,222.10 (77.32)	945.14 (22.68)	4,167.24 (100.00)
2006-07	3,576.00 (74.07)	1,251.58 (25.93)	4,827.55 (100.00)
2007-08	4,379.43 (76.07)	1,377.69 (23.93)	5,757.12 (100.00)
2008-09	4,017.52 (73.49)	1,449.06 (26.51)	5,466.59 (100.00)
2009-10	5,224.06 (75.39)	1,704.97 (24.61)	6,929.03 (100.00)
2010-11	5,661.33 (74.06)	1,983.19 (25.94)	7,644.51 (100.00)
2011-12	8,293.76 (75.15)	2,742.27 (24.85)	11,036.03 (100.00)
2012-13	14,380.61 (76.32)	4,462.97 (23.68)	18,843.58 (100.00)
2013-14	13,232.07 (78.84)	3,551.74 (21.16)	16,783.81 (100.00)
2014-15	16,512.05 (80.67)	3,956.77 (19.33)	20,468.82 (100.00)
2015-16	18,113.14 (73.94)	6,385.15 (26.06)	24,498.30 (100.00)
2016-17	22,956.32 (81.75)	5,123.34 (18.25)	28,079.67 (100.00)
2017-18	20,765.86 (67.81)	9,857.24 (32.19)	30,623.10 (100.00)
Average amount per annum	10,794.94 (75.76)	3,445.47 (24.24)	14,240.41 (100.00)
Compound annual growth rate (CAGR)	20.00**	19.58**	20.01**
Coefficient of variation (CV)	66.19	74.40	66.55
Instability index	14.68	17.05	12.74

Source: NABARD

Note: - ** Significant at 1% level; Nos in parentheses are percentages to total loan amount

Table.2 Agency wise flow of institutional credit for agriculture and allied activities in North Karnataka

(₹ Crores)

Years	Commercial banks			Cooperative banks			RRBs			Overall		
	Crop loan	Investment loan	Total	Crop loan	Investment loan	Total	Crop loan	Investment loan	Total	Crop loan	Investment loan	Total
2005-06	1,146.54	703.43	1,849.97	1,295.07	77.45	1,372.52	780.49	164.26	944.75	3,222.10	945.14	4,167.24
2006-07	1,425.55	891.65	2,317.20	1,115.48	123.33	1,238.81	1,034.94	236.60	1,271.54	3,575.96	1,251.58	4,827.55
2007-08	1,686.62	999.93	2,686.56	1,496.15	125.21	1,621.36	1,196.66	252.55	1,449.20	4,379.43	1,377.69	5,757.12
2008-09	1,575.60	890.03	2,465.63	1,381.01	222.02	1,603.03	1,060.91	337.01	1,397.93	4,017.52	1,449.06	5,466.59
2009-10	2,178.00	1,015.77	3,193.76	1,465.33	146.05	1,611.37	1,580.74	543.15	2,123.89	5,224.06	1,704.97	6,929.03
2010-11	2,017.63	1,134.20	3,151.83	1,706.19	297.48	2,003.67	1,937.51	551.50	2,489.01	5,661.33	1,983.19	7,644.51
2011-12	3,691.11	1,638.26	5,329.37	2,741.44	295.64	3,037.08	1,861.22	808.37	2,669.59	8,293.76	2,742.27	11,036.03
2012-13	5,766.87	2,592.39	8,359.26	6,770.62	573.71	7,344.34	1,843.12	1,296.86	3,139.98	14,380.61	4,462.97	18,843.58
2013-14	6,841.09	2,422.88	9,263.97	3,901.10	345.65	4,246.74	2,489.89	783.21	3,273.10	13,232.07	3,551.74	16,783.81
2014-15	8,080.67	2,536.96	10,617.63	4,967.40	558.92	5,526.32	3,463.98	860.89	4,324.87	16,512.05	3,956.77	20,468.82
2015-16	10,065.26	4,809.04	14,874.30	4,724.13	518.96	5,243.09	3,323.75	1,057.15	4,380.91	18,113.14	6,385.15	24,498.30
2016-17	13,710.10	3,638.53	17,348.63	4,998.12	464.60	5,462.71	4,248.11	1,020.22	5,268.33	22,956.32	5,123.34	28,079.67
2017-18	12,813.95	6,151.56	18,965.51	4,569.96	1,008.84	5,578.80	3,381.95	2,696.84	6,078.79	20,765.86	9,857.24	30,623.10
Average amount per annum	5,461.46	2,263.43	7,724.89	3,164.00	365.99	3,529.99	2,169.48	816.05	2,985.53	10,794.94	3,445.47	14,240.41
Compound annual growth rate (CAGR)	25.40**	19.24**	23.46**	15.89**	19.79**	16.30**	14.32**	20.69**	16.11**	20.00**	19.58**	20.01**
Coefficient of variation (CV)	82.26	75.15	78.85	60.12	70.81	59.78	51.35	81.62	54.44	66.19	74.40	66.55
Instability index	16.31	20.19	15.45	27.61	24.76	25.37	12.83	29.10	7.72	14.68	17.05	12.74

Source: NABARD

Note: - ** Significant at 1% level

Table.3 Agency wise share of total institutional credit for agriculture and allied activities in North Karnataka

(Per cent)

Year	Commercial banks	Cooperative banks	RRBs	Total
2005-06	44.39	32.94	22.67	100
2006-07	48.00	25.66	26.34	100
2007-08	46.66	28.16	25.17	100
2008-09	45.10	29.32	25.57	100
2009-10	46.09	23.26	30.65	100
2010-11	41.23	26.21	32.56	100
2011-12	48.29	27.52	24.19	100
2012-13	44.36	38.98	16.66	100
2013-14	55.20	25.30	19.50	100
2014-15	51.87	27.00	21.13	100
2015-16	60.72	21.40	17.88	100
2016-17	61.78	19.45	18.76	100
2017-18	61.93	18.22	19.85	100
Average over years	50.43	26.42	23.15	100

Table.4 Share of financial agencies in total institutional investment credit advanced to agriculture in North Karnataka

(Per cent)

Years	Commercial banks	Cooperative banks	RRBs	Total
2005-06	74.43	8.19	17.38	100
2006-07	71.24	9.85	18.90	100
2007-08	72.58	9.09	18.33	100
2008-09	61.42	15.32	23.26	100
2009-10	59.58	8.57	31.86	100
2010-11	57.19	15.00	27.81	100
2011-12	59.74	10.78	29.48	100
2012-13	58.09	12.86	29.06	100
2013-14	68.22	9.73	22.05	100
2014-15	64.12	14.13	21.76	100
2015-16	75.32	8.13	16.56	100
2016-17	71.02	9.07	19.91	100
2017-18	62.41	10.23	27.36	100
Average share over years	65.80	10.84	23.36	100

Table.5 Activity wise disbursement of institutional investment credit in North Karnataka

(₹ Crores)

Year	Minor Irrigation	Land Development	Farm Mechanization	Plantation & Horticulture	Dairy Development	Poultry	Sheep Goat and Piggery	Fisheries	Forestry and Waste land development	Storage godown and market yard	Bio gas	Sericulture	Others	Total
2005-06	93.10	81.24	383.42	93.11	52.03	7.05	8.71	3.11	6.95	88.84	0.44	1.63	125.51	945.14
2006-07	125.77	117.23	377.25	110.92	46.84	16.50	10.03	3.62	7.40	185.44	0.39	1.98	248.23	1,251.58
2007-08	126.88	121.78	342.55	124.51	79.40	9.42	12.74	4.98	10.28	147.23	0.05	2.55	395.33	1,377.69
2008-09	162.00	149.42	249.27	109.36	71.24	15.68	12.98	29.69	71.88	207.86	0.08	2.26	367.34	1,449.06
2009-10	242.51	135.05	354.47	127.48	53.87	15.38	9.19	8.80	10.89	352.31	0.06	1.78	393.17	1,704.97
2010-11	440.27	155.21	306.66	121.53	148.64	51.32	16.81	18.67	54.99	101.22	0.00	0.31	567.56	1,983.19
2011-12	701.67	166.45	379.62	115.25	294.73	19.89	33.18	14.03	57.61	306.24	0.00	0.38	653.22	2,742.27
2012-13	917.19	347.67	590.40	245.15	214.03	42.04	33.25	20.61	136.97	304.63	0.00	0.00	1,611.01	4,462.97
2013-14	1,016.54	467.38	673.61	247.43	184.79	29.23	59.80	9.55	52.17	332.30	0.00	0.00	478.94	3,551.74
2014-15	706.16	259.38	669.67	389.76	209.49	40.39	60.92	22.71	65.51	263.96	0.00	0.00	1,268.82	3,956.77
2015-16	1,208.88	741.24	922.89	579.94	451.63	177.54	119.07	9.21	47.65	501.17	3.98	0.00	1,621.96	6,385.15
2016-17	718.29	685.64	697.76	603.25	473.81	213.58	151.64	112.54	132.84	372.09	1.70	0.00	960.20	5,123.34
2017-18	1,987.38	1,061.66	1,390.57	877.61	1,205.75	156.76	496.26	72.63	158.88	354.39	4.65	0.00	2,090.71	9,857.24
Average amount per annum	649.74	345.33	564.47	288.10	268.17	61.14	78.81	25.40	62.62	270.59	0.87	0.84	829.38	3,445.47
Compound annual growth rate (CAGR)	27.43**	22.15**	11.42**	20.49**	26.96**	29.52**	35.91**	23.22*	26.73**	10.63**	-	-	20.83**	19.58**
Coefficient of variation (CV)	84.58	88.88	56.34	87.20	117.89	116.90	169.07	125.68	82.21	44.19	183.77	121.63	75.36	74.40
Instability index	28.83	29.38	29.70	31.87	43.17	49.74	54.20	81.79	47.17	29.35	0.00	0.00	33.87	17.05

Source: NABARD

** Significant at 1% level, *Significant at 5% level

Note: The group 'others' includes bullock pairs, bullock carts, camels, camel carts, SHG, other activities under AH, Kisan bikes, ACABC, soil/water testing, compost/ manure plants, vermiculture, bee- keeping, etc.

Table.6 Activity wise share in investment credit advances by commercial banks in North Karnataka

(Per cent)

Year	Minor Irrigation	Land Development	Farm Mechanization	Plantation & Horticulture	Dairy Development	Poultry	Sheep Goat and Piggery	Fisheries	Forestry and Waste land development	Storage godown and market yard	Bio gas	Sericulture	Others	Overall
2005-06	8.56	7.68	41.71	8.56	5.47	0.92	0.82	0.32	0.45	8.78	0.05	0.10	16.57	100.00
2006-07	9.58	8.15	28.81	7.91	3.73	1.74	0.63	0.20	0.25	13.63	0.02	0.12	25.23	100.00
2007-08	8.87	9.80	23.71	8.67	5.09	0.54	0.87	0.29	0.46	6.67	0.00	0.13	34.89	100.00
2008-09	6.24	11.11	19.69	8.07	4.81	1.50	0.53	3.02	0.42	9.40	0.00	0.15	35.04	100.00
2009-10	6.63	9.73	21.26	8.72	3.14	1.24	0.49	0.45	0.43	13.37	0.00	0.05	34.49	100.00
2010-11	15.38	7.06	13.04	5.88	5.83	4.36	0.68	1.25	1.20	3.88	0.00	0.00	41.44	100.00
2011-12	13.08	6.88	15.01	4.02	8.15	0.93	0.77	0.67	1.63	13.33	0.00	0.01	35.52	100.00
2012-13	9.59	9.79	14.82	6.19	4.42	1.30	0.96	0.42	3.09	11.03	0.00	0.00	38.40	100.00
2013-14	17.39	14.35	20.11	7.03	4.50	0.91	1.77	0.27	1.98	13.25	0.00	0.00	18.46	100.00
2014-15	11.62	8.72	15.77	10.93	5.89	1.27	1.99	0.69	1.94	9.29	0.00	0.00	31.89	100.00
2015-16	19.42	11.06	15.48	7.46	4.96	1.16	1.92	0.07	0.73	8.17	0.06	0.00	29.52	100.00
2016-17	14.17	12.69	15.41	11.08	6.65	4.08	3.07	2.45	2.46	9.03	0.04	0.00	18.85	100.00
2017-18	20.15	9.52	14.85	9.55	12.65	1.63	5.09	0.82	1.63	3.87	0.08	0.00	20.17	100.00
Average share over years	12.36	9.73	19.97	8.01	5.79	1.66	1.51	0.84	1.28	9.52	0.02	0.04	29.27	100.00

Note: The group 'others' includes bullock pairs, bullock carts, camels, camel carts, SHG, other activities under AH, Kisan bikes, ACABC, soil/water testing, compost/ manure plants, vermiculture, bee- keeping, etc.

Table.7 Activity wise share in investment credit advances by cooperatives banks in North Karnataka

(Per cent)

Year	Minor Irrigation	Land Development	Farm Mechanization	Plantation & Horticulture	Dairy Development	Poultry	Sheep Goat and Piggery	Fisheries	Forestry and Waste land development	Storage godown and market yard	Bio gas	Sericulture	Others	Overall
2005-06	18.07	23.14	23.97	20.76	6.29	0.11	2.06	0.27	0.36	0.70	0.00	0.54	3.71	100.00
2006-07	13.47	28.44	27.74	20.46	2.60	0.26	0.90	0.18	0.51	0.48	0.01	0.44	4.51	100.00
2007-08	12.91	6.66	35.52	17.60	4.09	0.05	0.97	0.29	0.43	0.02	0.00	0.42	21.03	100.00
2008-09	8.83	16.36	17.71	9.27	7.44	0.11	0.81	0.24	26.84	2.78	0.00	0.20	9.40	100.00
2009-10	10.42	6.25	38.96	13.23	4.88	0.99	0.71	0.63	2.14	1.07	0.00	0.39	20.33	100.00
2010-11	8.00	3.36	35.43	11.13	18.28	0.16	1.90	0.25	13.37	0.89	0.00	0.10	7.12	100.00
2011-12	9.11	3.44	24.74	12.31	25.31	0.92	5.55	0.19	2.83	3.59	0.00	0.05	11.95	100.00
2012-13	4.95	3.65	12.64	5.89	4.94	0.31	0.41	0.18	3.89	0.37	0.00	0.00	62.77	100.00
2013-14	31.86	16.11	27.35	9.62	9.66	0.73	2.10	0.31	0.11	0.49	0.00	0.00	1.65	100.00
2014-15	13.08	1.21	21.64	5.67	4.52	0.35	0.23	0.04	0.01	0.24	0.00	0.00	53.00	100.00
2015-16	25.68	13.36	18.78	18.52	10.68	0.47	1.05	0.10	0.13	2.78	0.17	0.00	8.25	100.00
2016-17	12.04	16.37	13.02	17.35	9.59	3.63	2.47	1.61	1.63	1.57	0.00	0.00	20.73	100.00
2017-18	11.29	14.89	12.66	6.43	5.60	2.06	4.05	0.38	0.96	1.71	0.00	0.00	39.97	100.00
Average share over years	13.82	11.79	23.86	12.94	8.76	0.78	1.79	0.36	4.10	1.28	0.01	0.17	20.34	100.00

Note: The group 'others' includes bullock pairs, bullock carts, camels, camel carts, SHG, other activities under AH, Kisan bikes, ACABC, soil/water testing, compost/ manure plants, vermiculture, bee- keeping, etc.

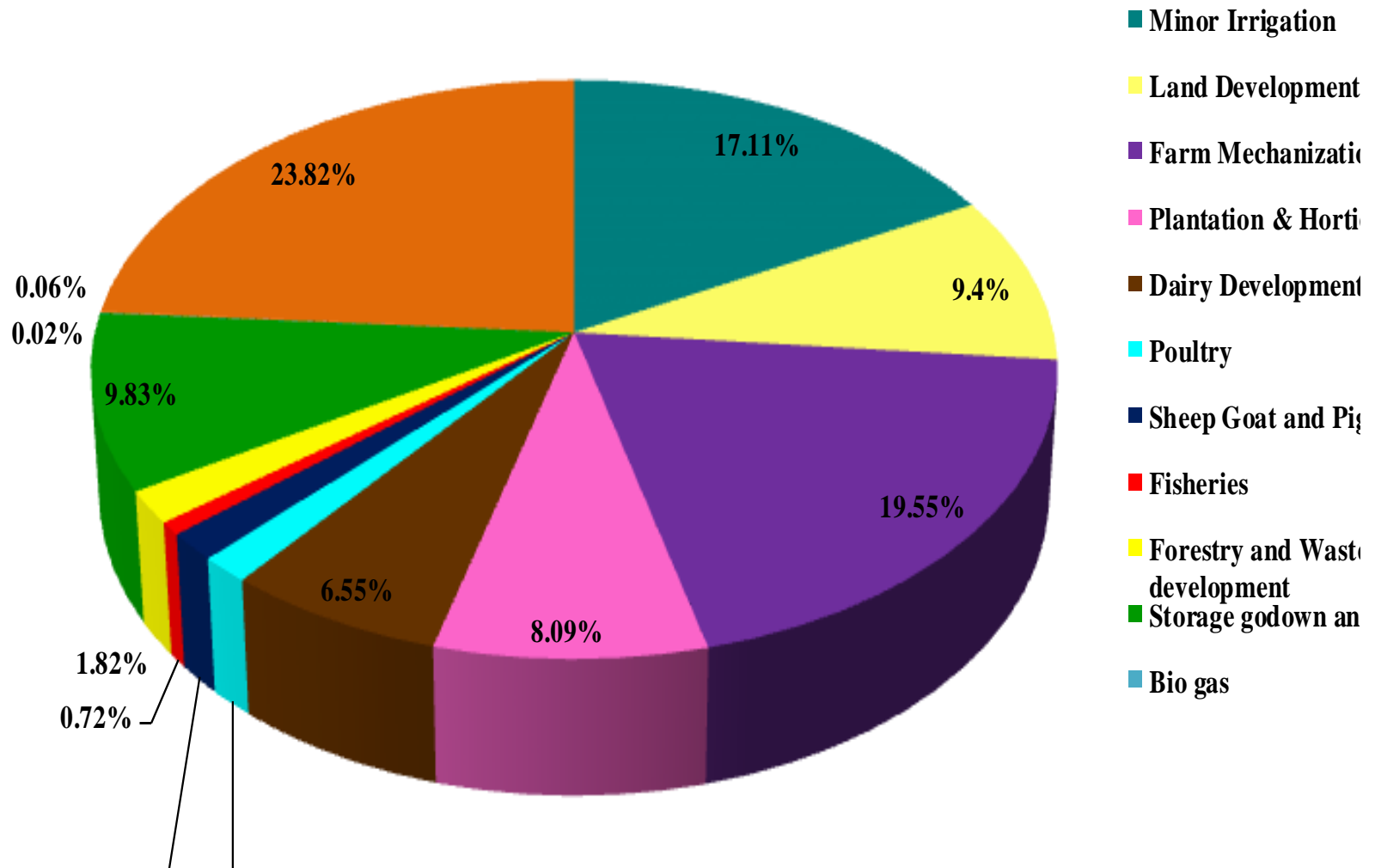
Table.8 Activity wise share in investment credit advances by RRBs in North Karnataka

(Per cent)

Year	Minor Irrigation	Land Development	Farm Mechanization	Plantation & Horticulture	Dairy Development	Poultry	Sheep Goat and Piggery	Fisheries	Forestry and Waste land development	Storage godown and market yard	Bio gas	Sericulture	Others	Overall
2005-06	11.50	5.66	43.49	10.25	5.26	0.31	0.83	0.40	2.11	16.15	0.07	0.29	3.68	100.00
2006-07	10.04	4.02	36.41	6.39	4.40	0.27	1.38	0.68	1.91	26.77	0.08	0.17	7.47	100.00
2007-08	8.72	6.11	24.16	6.23	9.26	1.58	1.12	0.66	2.02	31.90	0.00	0.28	7.97	100.00
2008-09	25.76	4.22	10.29	5.02	3.53	0.63	1.91	0.68	2.53	35.02	0.01	0.13	10.26	100.00
2009-10	29.45	4.99	15.02	3.60	2.74	0.25	0.59	0.62	0.63	39.57	0.00	0.12	2.43	100.00
2010-11	43.88	11.81	9.68	3.94	5.10	0.26	0.63	0.67	0.30	9.89	0.00	0.00	13.84	100.00
2011-12	56.96	5.38	7.50	1.61	10.68	0.25	0.52	0.31	2.78	9.55	0.00	0.00	4.46	100.00
2012-13	49.37	5.63	10.30	3.93	5.49	0.52	0.45	0.66	2.66	1.29	0.00	0.00	19.70	100.00
2013-14	61.95	8.17	11.73	5.60	5.42	0.61	1.25	0.26	0.48	1.23	0.00	0.00	3.32	100.00
2014-15	39.28	3.66	17.27	9.37	4.04	0.73	1.07	0.57	1.88	3.14	0.00	0.00	19.00	100.00
2015-16	13.41	13.27	7.66	11.84	14.93	11.30	2.01	0.48	1.12	8.90	0.01	0.00	15.07	100.00
2016-17	14.40	14.48	7.52	11.70	18.35	4.72	2.78	1.55	3.51	3.54	0.01	0.00	17.45	100.00
2017-18	23.51	12.09	12.95	8.36	13.76	1.34	5.29	0.67	1.81	3.66	0.00	0.00	16.56	100.00
Average share over years	29.86	7.65	16.46	6.76	7.92	1.75	1.53	0.63	1.83	14.66	0.01	0.08	10.86	100.00

Note: The group 'others' includes bullock pairs, bullock carts, camels, camel carts, SHG, other activities under AH, Kisan bikes, ACABC, soil/water testing, compost/ manure plants, vermiculture, bee- keeping, etc.

Fig.1 Activity wise average share in total investment credit for agriculture and allied sector advanced by institutional agencies in North Karnataka (2005-06 to 2017-18)



In conclusion, it clearly shows that commercial banks play a very bigger role in disbursement of investment loan in North Karnataka. The commercial banks having maximum share in the total investment credit for agriculture by institutional agencies is not surprising as the commercial banks with their wide branch networking and strong capital base, occupy first position in the total agricultural lending in the study area. Also, the demand for investment in farm mechanization and minor irrigation activities is more in North Karnataka region as compared to remaining investment activities during a given period of time.

In the recent years, labour availability for farming operations has been difficult especially when the operations have to be completed in a time bound manner due to the vagaries of climate and attack of pest and diseases. As such, farmers are more and more inclined for farm mechanization, which saves them both time and money while performing critical operations.

North Karnataka region is no exception to this. Further a large dependence on monsoon in farming in this region to go in for minor irrigation. A large area falling under rainfed farming in North Karnataka necessitates the farmers to adopt minor irrigation practices in the region.

The components of minor irrigation such as digging open wells, bore wells, drip irrigation equipment, sprinklers etc. required huge amount of investment. This explains why minor irrigation in the region accounts for maximum average annual investment expenditure among various components of farm investment over years. As a result, these two components of farm investment are accounting for maximum share in the total farm investment expenditure.

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