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CHAPTER-4

OVERVIEW OF INSTITUTIONAL CREDIT FACILITIES TO AGRICULTURAL SECTOR IN INDIA

4.1: Introduction

Institutional financing for the rural people to meet their credit need is more preferable than non-institutional financing because the governments, commercial banks or the co-operatives are more solvent and organizational attitude. Moreover, these institutional sources are following all the rules and regulations, avoid exploitation and also taking favourable schemes to satisfy various credit needs of the rural people. Keeping all these facts in mind, the agricultural credit has grown at reasonable rates through the expansion of institutional framework. Overtime, the institutional credit agencies have been achieved a spectacular progress in terms of the scale and outreach. After the nationalization of banks, the number of offices of public sector banks increased rapidly from 8,262 in June 1969 to 1,48,914 by March, 2018 (**Economic Survey, 2018-19**)¹. In the post-independence India, the role of non-institutional sources has declined rapidly due to wide spread of institutional machinery for credit.

All India Rural Credit Survey Report (1971-1972) pointed out that although the money lenders contributed a large portion of credit to the rural economy but their monopoly behavior in supplying rural credit created several problems in the rural credit market in India. Mostly these money lenders charged quite high rate of interest which often much above the maximum rate legally prescribed by the state governments. Moreover, they followed all sort of malpractices regarding repayment amount, time of payment, manipulation of account and conditional sale deeds in order to exploit the rural households. Sometimes moneylenders forced the farmers to make an advance contracts for attached sale of output only through them resulting in a sale price lower than market price. (**Gough, 1955**)², realized that these exploitations were mostly rooted in the socio-

economic environment prevailing in the villages which controlled and exercised by the moneylenders over the rural poor in the villages of India.

The following table 4.1 depicts the relative share of borrowing of agricultural Household from different non-institutional and institutional credit sources in India. It is found that the share of institutional credit was 7.3 percent in 1951, increased to over 59 percent in 2012. The institutional credit sources in India are composed of different agencies such as Co-operative Banks, Commercial Banks, State Governments and others. Among all these institutional credit agencies the Commercial Banks gradually increased its share to the total injection of institutional credit in the country i.e. 0.9 % in 1951 to 30.7 % in 2012. But in case of contribution of Co-operative Banks towards the supply of institutional credit, it slowly lost its position with compare to the Commercial Banks. The Co-operative Banks supplied 3.3 % institutional credit in 1951 which increased to 28.9 % of the total institutional credit in 2012. On the other hand, there was a remarkable decline in the share of non-institutional credit from around 93 percent to 41 percent during the same period. The money lenders are one of the most important non-institutional credit sources in India and their contribution towards credit supply to the society has decreased from 69.7 % of the total non-institutional credit in 1951 to 26.8 % of the total non-institutional credit in 2012.

Table 4.1
Relative share of Borrowing of Agricultural Households from different Sources
(Per cent)

Sources of Credit	1951	1961	1971	1981	1991	2002	2012
Non-Institutional sources (A)	92.7	81.3	68.3	36.8	30.6	38.9	41
<i>of which</i>							
Money Lenders	69.7	49.2	36.1	16.1	17.5	26.8	31

Institutional agencies(B)	7.3	18.7	31.7	63.2	66.3	61.1	59
<i>of which</i>							
Co-operatives Societies/ Banks	3.3	2.6	22.0	29.8	23.6	30.2	28.9
Commercial Banks	0.9	0.6	2.4	28.8	35.2	26.3	30.7
Unspecified (C)	-----	-----	-----	-----	3.1	-----	-----
Total (A+B+C)	100.0						

Source: All India Debt and Investment Survey and NSSO (mospi.gov.in)³.

Regarding the role of banking institutions, it considered as parameters in development with other agencies. The banking institutions not only act as observers but also take an active role in initiating such activities wherever they are not already in operation. As for example banking institutions, when financing a dairy development scheme can use its good offices to organize fodder supplies, marketing societies, chilling facilities etc., by extending credit for such purposes, in this way a banking institution can not only contribute to development but also pave the way for successful recovery of its loan (Chakrabarty M, 2008)⁴. The importance of banking institutions in promoting rural development in India and also encouraging the saving of the community, mobilized the deposits of the maturity and liquidity and extended the resources by way of loans for agriculture, industry, transport, commerce and allied activities as well as to the government for various development purposes.

4.2: Features of Agricultural Credit in India

It is widely accepted that the Commercial Banks perform the important function of financial intermediation in the economic system. In order to perform high productivity, banks should have two important qualities- i) Operational Efficiency, and ii) Allocation efficiency. Operational efficiency means performing the intermediation function at the lowest cost. On the other hand, Allocation efficiency means the allocation of resources to the most deserving and productive segments of the population. The prime aim of the

entire Priority Sector Lending Scheme in India is to achieve greater allocation efficiency **(Chakrabarty K C, 2012)⁵**.

The Priority Sectors may be defined as those sectors of economy which usually not get timely and adequate loans in the absence of special privilege. Which include small amount of loans to farmers for agriculture and allied sectors, micro and small enterprises, loans for housing to the poor, education loans for students and loans to weaker sections. Priority Sector Lending (PSL) is a scheme which is advised to provide loans to the priority sectors, in order to achieve sectoral balance with in credit disbursement and also to develop the weaker sections **(Rani S & Garg D, 2015)⁶**.

According to the directives of **(RBI, 2012)⁷**, the Agricultural Credit under Priority Sector Lending (PSL) is classified into two categories- i) Direct Finance, and ii) Indirect Finance. Direct Finance refers to loans given to Individual Framers [including Self Help Groups (SHGs) or Joint Liability Groups (JLGs)] for Agriculture and Allied Sectors [dairy, fishery, piggery, poultry, bee-keeping, etc.). It also refers to advances to others (i.e. Corporate, Partnership firms and Institutions) for Agriculture and Allied Sectors. On the other hand, Indirect Finance refers to credit given to the farmers or other producers through an intermediary for agriculture and allied sector. The Reserve Bank of India suggested that the overall 40 per cent of Adjusted Net Bank Credit (ANBC) for Priority Sector Lending and the overall target of 18 percent fixed for Agriculture and Allied Sector. It is also directed by the RBI that the indirect agricultural credit cannot account for more than 25 per cent of total agricultural credit (i.e. 4.5 per cent of ANBC).

According to the revised directives of **(RBI, 2015)⁸**, the lending to agriculture has been defined to include- i) Farm Credit (which will include short-term crop loans and medium/long-term credit to farmers), ii) Agriculture Infrastructure and iii) Ancillary Activities.

- i) Farm Credit- It is further segregated into two parts, i.e. a) loans to individual farmers (SHGs or JLGs) directly engaged in agriculture and loans to dairy, fishery, animal husbandry, poultry, bee-keeping and sericulture for allied activities through short-term crop loans and medium/long-term credit. And, b)

loans to corporate farmers, farmers' producer organizations, partnership firms and co-operatives of farmers directly engaged in agriculture and dairy, fishery, animal husbandry, poultry, bee-keeping and sericulture up to an aggregate limit of Rs. 2 Crore per borrower through short-term crop loan and medium/long-term credit.

- ii) Agriculture infrastructure- Under this category loans are given for storage facilities, soil conservation, watershed development and plant tissue & agri-biotechnology, seed production, bio-fertilizer and bio-pesticides etc.
- iii) Ancillary activities- Under this category loans are given for Agriclincs, Agribusiness Centres, Agro-processing and farm machinery etc. the loans are also given to Primary Credit Societies (PACS), Farmers' Service Societies (FSS) and Large-sized Adivasi Multi-Purpose Societies (LAMPS) and outstanding deposits under RIDF.

Table 4.2

Year wise progress of Advances to Agriculture (Outstanding) by Scheduled Commercial Banks (SCBs)

(Amount in Rs. Crore)

(Figures in parentheses indicate the Percent)

Year (End of March)	Agricultural Finance		Total
	Direct Finance	Indirect Finance	
1981-82	4061 (76.80)	1227 (23.20)	5288 (100.00)
1991-92	17397 (92.39)	1433 (7.61)	18830 (100.00)
2001-02	46581 (71.86)	18238 (28.14)	64819 (100.00)
2002-03	56857 (70.59)	23690 (29.41)	80547 (100.00)
2003-04	70781	28520	99301

	(71.28)	(28.72)	(100.00)
2004-05	95565	36071	131636
	(72.60)	(27.40)	(100.00)
2005-06	134798	57175	191973
	(70.22)	(29.28)	(100.00)
2006-07	172128	82564	254692
	(67.58)	(32.42)	(100.00)
2007-08	214644	93443	308087
	(69.67)	(30.33)	(100.00)
2008-09	264893	110702	375595
	(70.53)	(29.47)	(100.00)
2009-10	317767	145554	463321
	(68.58)	(31.42)	(100.00)
2010-11	360253	146923	507176
	(71.03)	(28.97)	(100.00)
2011-12	440758	142585	583343
	(75.56)	(24.44)	(100.00)
2012-13	534331	111102	645433
	(82.79)	(17.21)	(100.00)
2013-14	--	--	892067
2014-15	--	--	970575
2015-16	--	--	1173098
2016-17	--	--	1265250
2017-18	--	--	1369456
2018-19	--	--	1580568
CAGR (%) 2001-02 to 2018-19			43.44

Source: Handbook of Statistics on the Indian Economy, 2018-19 (rbidocs.rbi.org.in)⁹

The above table 4.2 shows Year-wise progress of Advances (i.e. Direct & Indirect) to Agriculture (Outstanding) by Scheduled Commercial Banks (SCBs). Since 1983, the

definitions of direct finance and indirect finance under the priority sector lending (PSL) guidelines have been changes several times particularly in the years 2001, 2002, 2004, 2005, 2006, 2007, 2010, 2011, 2012, 2013 and the latest in the year 2015. As per the latest guidelines, the focus was changed to ‘Credit for Agriculture’ instead of earlier approach of ‘Credit in Agriculture’ and also the distinction between direct and indirect agricultural finance were dispensed. Finally, the lending to agriculture sector re-defined to include (i) Farm Credit, (ii) Agriculture Infrastructure and (iii) Ancillary Activities (RBI, 2019)¹⁰. The indirect agricultural credit is dominated by the direct agricultural finance throughout the above time period. The total agricultural finance has increased from Rs. 5288 Crore in 1981-82 to Rs. 15,80,568 Crore in 2018-19. During the 1990s and after the share of indirect finance in total agricultural finance has consistently risen from 7.61 per cent in 1991-92 to 31.42 per cent in 2009-10. But after the year 2009-10 it again fallen to 17.21 per cent in 2012-13 due to major changes introduced in the definition of indirect finance. On the other hand the flow of direct finance continued to increase from Rs. 4061 Crore i.e. 76.80 per cent of the total in 1981-82 to Rs. 534331 Crore i.e. 82.79 per cent of the total finance in 2012-13. After the year 2012-13, the distinction between direct and indirect finance were dispensed by the directives of Reserve Bank of India. Basically the indirect finance to agriculture would not go directly to farmers but an increase in indirect finance is needed to improve the capacity of farmers to absorb more direct finance. The Compound Annual Growth rate (CAGR) of total agricultural finance was 43.44 % during 2001-02 to 2018-19, which suggested that the flow of institutional credit to the agriculture and allied sectors has increased at a higher pace during the study period.

4.3: Flow of Institutional Credit to Agricultural Sector in India

Agricultural sector is one of the dominant sectors of our economy and institutional credit can play an important role in increasing agricultural production. The agricultural sector requires availability and accessibility to adequate, timely and low cost credit from institutional credit sources especially to small and marginal farmers. To establish a sustainable and profitable farming systems credit is indispensable along with other inputs. The institutional credit sources in India have been followed a multi-agency approach to

deliver the credit to agricultural sector, which composed of Scheduled Commercial Banks (SCBs), Regional Rural Banks (RRBs) and Co-operative Banks. The policy of agricultural credit is aimed at ensuring adequate and timely availability of credit at reasonable rates in the course of expansion of institutional framework and also expanded its outreach and scale by way of directed lending to all farmers with particular focus on small and marginal farmers and weaker sections of society to provide them modern technology and advanced agricultural practices for increasing agricultural production and productivity. The Union Government introduced the Ground Level Credit (GLC) policy in year 2003-04. Under this policy, Government of India announces GLC targets for agriculture and allied sector in the Union Budget every year which banks are required to achieve during the financial year. These targets are set region-wise, agency-wise (SCBs, RRBs & Co-operative Banks) and Loan Category wise (Crop and Term Loan) (RBI, 2019)¹¹. With an intention of affecting agricultural production credit acts as a facilitator to adopt the modern technology and also performs the important function to control over other resources. (Puhazhendhi. V & Jayaraman. B, 1999)¹² found that there was significant and positive impact of credit on the level of inputs used, which in turn had a significant and positive impact on the gross value of output in agriculture.

Table 4.3

Agency wise Ground Level Credit Flow (GLC) to Agriculture and Allied Sector during 2001-02 to 2018-19 (P)

(Amount in Rs. Crore)

(Figures in parentheses indicate the Percent)

Year	Agency				Total
	Commercial Banks	Regional Rural Banks	Co-operative Banks	Other Agencies	
2001-02	33,587 (54.22)	4,822 (7.78)	23,453 (37.87)	80 (0.13)	61,942 (100.00)
2002-03	39,774 (57.17)	6,070 (8.73)	23,636 (33.98)	80 (0.12)	69,560 (100.00)

2003-04	52,441 (60.30)	7,581 (8.72)	26,875 (30.89)	84 (0.09)	86,981 (100.00)
2004-05	81,481 (65.02)	12,404 (9.90)	31,231 (24.93)	193 (0.15)	1,25,309 (100.00)
2005-06	1,25,477 (69.52)	15,223 (8.43)	39,404 (21.84)	382 (0.21)	1,80,486 (100.00)
2006-07	1,66,485 (72.57)	20,435 (8.91)	42,480 (18.52)	--	2,29,400 (100.00)
2007-08	1,81,088 (71.11)	25,312 (9.94)	48,258 (18.95)	--	2,54,658 (100.00)
2008-09	2,28,951 (75.83)	26,765 (8.87)	45,966 (15.23)	226 (0.07)	3,01,908 (100.00)
2009-10	2,85,800 (74.33)	35,217 (9.16)	63,497 (16.51)	--	3,84,514 (100.00)
2010-11	3,45,877 (73.86)	44,293 (9.46)	78,121 (16.68)	--	4,68,291 (100.00)
2011-12	3,68,616 (72.13)	54,450 (10.65)	87,963 (17.12)	--	5,11,029 (100.00)
2012-13	4,32,491 (71.21)	63,681 (10.48)	1,11,203 (18.31)	--	6,07,375 (100.00)
2013-14	5,27,506 (72.75)	82,653 (11.32)	1,19,964 (16.43)	--	7,30,123 (100.00)
2014-15	6,04,376 (71.50)	1,02,483 (12.12)	1,38,469 (16.38)	--	8,45,328 (100.00)
2015-16	6,42,954 (70.23)	1,19,260 (13.03)	1,53,295 (16.74)	--	9,15,509 (100.00)
2016-17	7,99,781 (75.04)	1,23,216 (11.56)	1,42,758 (13.40)	--	10,65,755 (100.00)
2017-18	8,71,080 (74.92)	1,41,216 (12.15)	1,50,321 (12.93)	--	11,62,617 (100.00)

2018-19	9,49,622	1,51,258	1,53,882	--	12,54,762
(P)	(75.68)	(12.06)	(12.26)		(100.00)

Source: NABARD Annual Reports compiled and computed (2001-02 to 2018-19) (P) = Provisional (www.nabard.org).

The above table 4.3 describes agency wise progress of Ground Level Credit (GLC) to Agriculture and allied sector during the period of 2001-02 to 2018-19. The government of India has taken several policy measures to improve the accessibility of farmers to the institutional sources of credit. As a result of these policy measures there is a significant increase in the share of institutional credit consistently over the years. The total amount of institutional credit flow has increased from Rs. 61,942 Crore in the year 2001-02 to Rs. 12,54,742 Crore (Provisional) in the year 2018-19, which is around twenty times expansion of credit flow during this time period. The agricultural credit disbursement continues to be dominated by Commercial Banks i.e. 54.22 % in 2001-02 which gradually increased to 75.68 % in 2018-19, followed by Co-operative Banks and Regional Rural Banks (RRBs). There has been an impressive growth in agricultural credit flow of Commercial Banks from Rs. 33,587 Crore to Rs. 9,49,622 Crore (Provisional) during the eighteen-year period of 2001-02 to 2018-19. On the other hand, the share of Regional Rural Banks (RRBs) has increased not a significant manner i.e. 7.78 % to 12.06 % during the time period, but in absolute term it increased from Rs. 4,822 Crore in 2001-02 to Rs. 1,51,258 Crore in 2018-19. While Co-operative Banks have lost out to Commercial Banks and their share in credit flow has declined from 37.87 % to 12.26 % over the last eighteen years (2001-02 to 2018-19).

Table 4.4
Growth Rate of Different Credit Institutions in term of GLC from 2001-02 to 2018-19 (P)

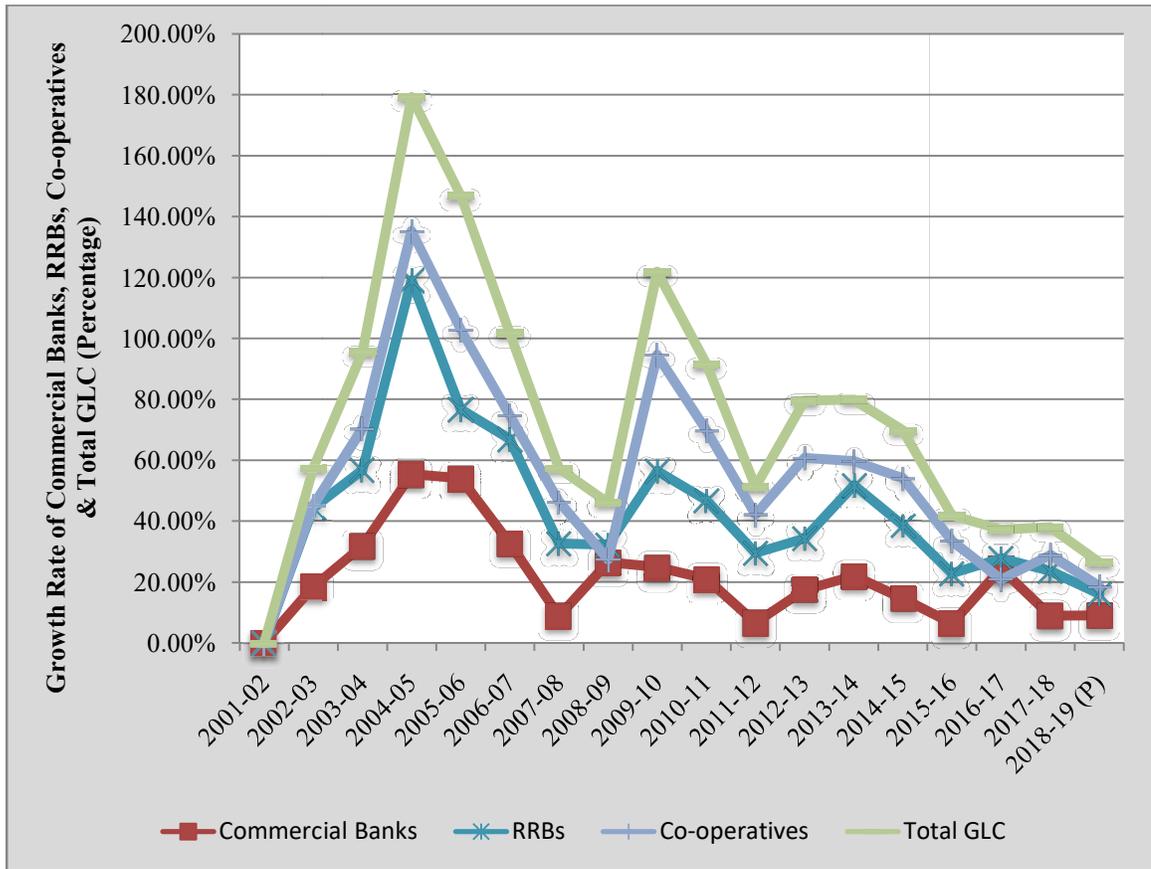
(Percent)

Year	Commercial Banks	RRBs	Co-operative Banks	Total GLC
2001-02	--	--	--	--

2002-03	18.42	25.88	0.78	12.30
2003-04	31.85	24.89	13.70	25.04
2004-05	55.38	63.62	16.21	44.06
2005-06	54.00	22.73	26.17	44.03
2006-07	32.68	34.24	7.81	27.10
2007-08	8.77	23.87	13.60	11.01
2008-09	26.43	5.74	-4.75	18.55
2009-10	24.83	31.58	38.14	27.36
2010-11	21.02	25.77	23.03	21.79
2011-12	6.57	22.93	12.60	9.13
2012-13	17.33	16.95	26.42	18.85
2013-14	21.97	29.79	7.88	20.21
2014-15	14.57	23.99	15.43	15.78
2015-16	6.38	16.37	10.71	8.30
2016-17	24.39	3.32	-6.87	16.41
2017-18	8.91	14.61	5.30	9.09
2018-19 (P)	9.02	7.11	2.37	7.93
CAGR (%)	66.31	84.52	-61.40	19.16

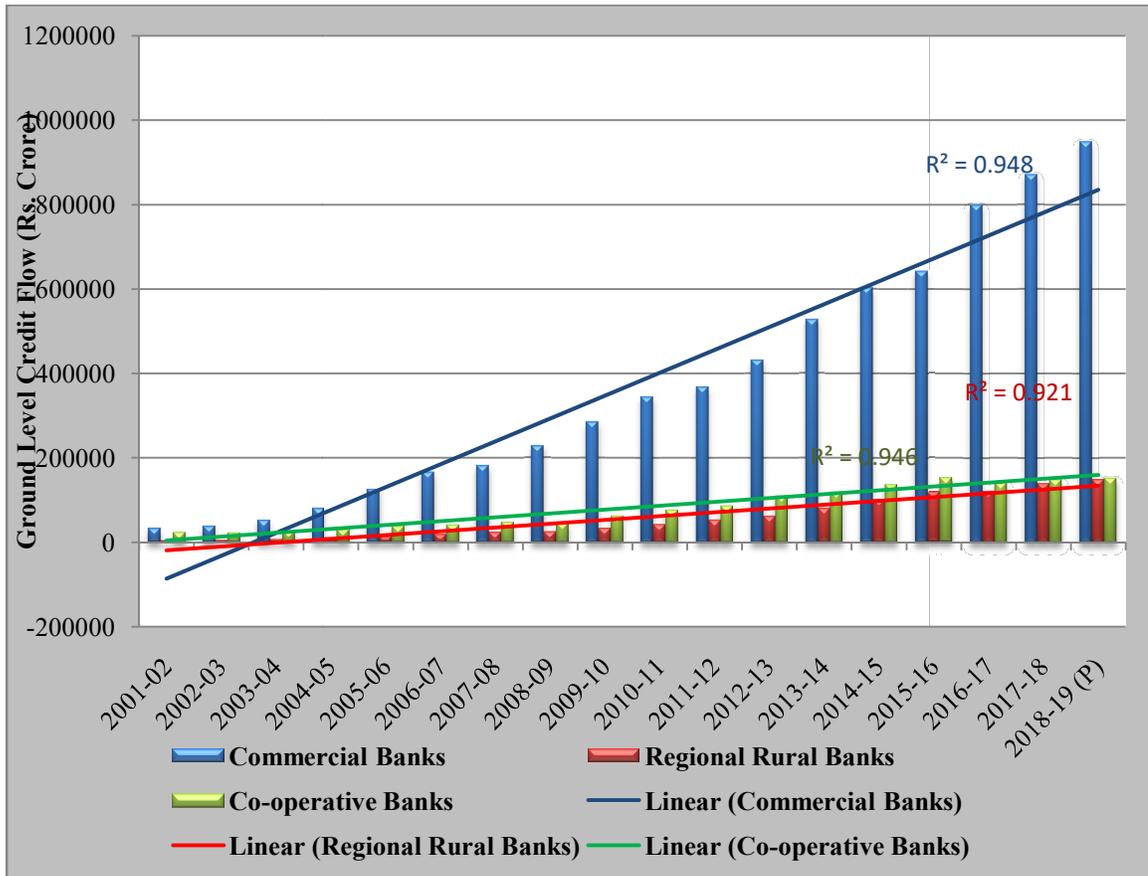
Source: Same as Above Table

Figure 4.1: Growth Rate of Different Credit Institutions in terms of GLC



Source: Same as Above Table

Figure 4.2: Performance of Different Credit Institutions in terms of GLC



Source: Same as Above Table

The above table 4.4 and figures 4.1 described the Growth Rate of different credit institutions in term of the flow of Ground Level Credit (GLC) to Agricultural Sector in India during the period from 2001-02 to 2018-19. The annual growth rate of commercial banks, RRBs and co-operative Banks show fluctuating trend during the study period. In 2008-09 and 2016-17, the annual growth showed a negative result for co-operative banks. In 2007-08, 2011-12, 2015-16 and 2017-18, the annual growth rate of commercial banks showed a low rate (i.e. below 10 %). In case of RRBs the annual growth rate was low in 2008-09 and 2016-17. As a result, the Compound Annual Growth Rate (CAGR) was impressive for commercial banks and RRBs i.e. 66.31 % & 84.52 %, but for co-operative banks it was negative i.e. -61.50 %. So, the CAGR of total Ground Level Credit given by different credit institutions was quite impressive i.e. 19.16 %. If we see the trend lines of all the credit institutions in figure 4.2, all showed upward and high value of R^2 suggested that the trend lines have been properly fitted, specially the commercial banks and RRBs

during the study period. Thus, the growth performance of institutional credit to agriculture in India is quite satisfactory during the period 2001-02 to 2018-19(P).

4.4: Classification of Ground Level Credit (GLC) flow to Agriculture Sector in India

On the basis of tenure the agricultural credit is classified into Short-term and Long-Term Credit. The Crop Loan or short-term credit is mainly given to the agriculture and allied sector for Seasonal Agricultural Operations (SAO) purposes. On the other side, the long-term agricultural credit indicates credit to the farmers/ producers for minor irrigation, reclamation and land development, tractors and agricultural machinery, plantations, crop loans converted into term loans and all loans given to allied activities including dairy, fishing, poultry, beekeeping and others. It is also found that the long-term agricultural credit has such a close association with capital formation in agriculture (Chavan P, 2013)¹³.

Table 4.5
Sector wise (Crop Loan & Term Loan) Ground Level Credit (GLC) flow to
Agriculture and Allied Activities during 2001-02 to 2018-19

(Amount in Rs. Crore)

(Figures in parentheses indicate the Percent)

Year	Ground Level Credit (GLC)		Total
	Crop Loan	Term Loan	
2001-02	40,387 (65.20)	21,555 (34.80)	61,942 (100.00)
2002-03	45,586 (65.53)	23,974 (34.47)	69,560 (100.00)
2003-04	54,977 (63.21)	32,004 (36.79)	86,981 (100.00)
2004-05	76,062 (60.70)	49,247 (39.30)	1,25,309 (100.00)

2005-06	1,05,350 (58.37)	75,136 (41.63)	1,80,486 (100.00)
2006-07	1,38,455 (60.36)	90,945 (39.64)	2,29,400 (100.00)
2007-08	1,81,393 (71.23)	73,265 (28.77)	2,54,658 (100.00)
2008-09	2,10,461 (69.71)	91,447 (30.29)	3,01,908 (100.00)
2009-10	2,76,656 (71.95)	1,07,858 (28.05)	3,84,514 (100.00)
2010-11	3,35,550 (71.65)	1,32,741 (28.35)	4,68,291 (100.00)
2011-12	3,96,158 (77.52)	1,14,871 (22.48)	5,11,029 (100.00)
2012-13	4,73,500 (77.96)	1,33,875 (22.04)	6,07,375 (100.00)
2013-14	5,48,435 (75.12)	1,81,688 (24.88)	7,30,123 (100.00)
2014-15	6,35,412 (75.17)	2,09,916 (24.83)	8,45,328 (100.00)
2015-16	6,65,313 (72.67)	2,50,196 (27.33)	9,15,509 (100.00)
2016-17	6,91,675 (64.90)	3,74,080 (35.10)	10,65,755 (100.00)
2017-18	7,48,725 (64.40)	4,13,892 (35.60)	11,62,617 (100.00)
2018-19 (P)	7,50,348 (59.80)	5,04,414 (40.20)	12,54,762 (100.00)

Source: NABARD Annual Reports compiled and computed (2001-02 to 2018-19). (P) = Provisional (www.nabard.org).

The above table 4.5 shows sector wise (Crop Loan & Term-Loan) Ground Level Credit (GLC) to agriculture and allied sector during the period of 2001-02 to 2018-19. It is found from the above table that a major portion of Ground Level Credit (GLC) has been supplied through the Crop Loan during the mentioned period. In the year 2001-02 the Crop Loan and Term Loan were Rs. 40,387 crore (i.e. 65.20 %) and Rs. 21,555 crore (i.e. 34.80 %) respectively and there was a wide gap between crop loan and term loan. This difference between crop loan and term loan has gradually reduced up to the year 2005-06 and it stood at 58.37 % & 41.63 % respectively. Again the difference between these two categories started increasing and become widest in the year 2012-13 and stood at 77.96 % & 22.04 % for the same category. But, from the year 2013-14 the percentage of term loan to the total Ground Level Credit flow started increasing and finally the proportion between crop loan and term loan placed at 59.80 % and 40.20 % respectively in the year 2018-19 (Provisional). There is an urgency to increase the share of term loan, which could guide to the much-needed increase in capital formation in agriculture, consequent increase agricultural productivity and income levels of the farmers in comparison to crop loan (NABARD Annual Report, 2015-16)¹⁴.

Table 4.6
Year Wise Growth Rate of Ground Level Credit (GLC) i.e. Crop Loan & Term Loan

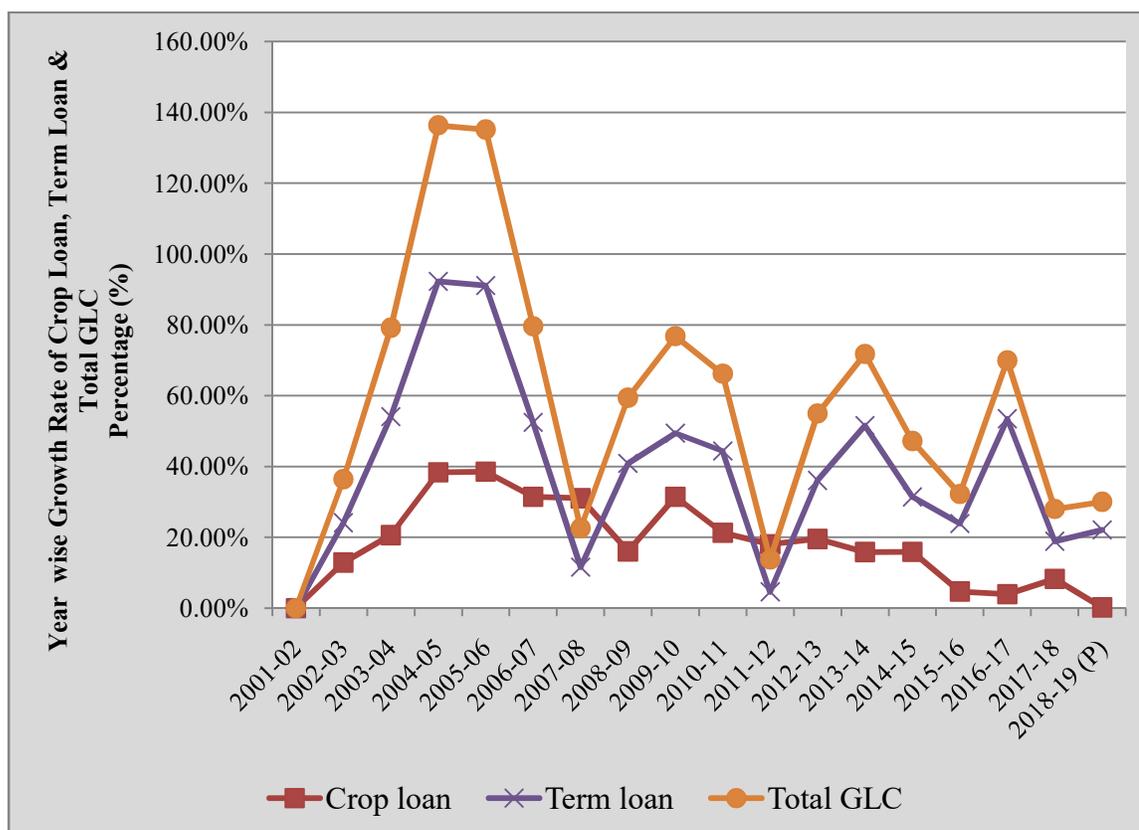
(Percentage)

Year	Ground Level Credit (GLC)		Total
	Crop Loan	Term Loan	
2001-02	--	--	--
2002-03	12.87	11.22	12.30
2003-04	20.60	33.49	25.04
2004-05	38.35	53.88	44.06
2005-06	38.51	52.57	44.03
2006-07	31.42	21.04	27.10
2007-08	31.01	-19.44	11.01
2008-09	16.02	24.82	18.55

2009-10	31.45	17.95	27.36
2010-11	21.29	23.07	21.79
2011-12	18.06	-13.46	9.13
2012-13	19.52	16.54	18.85
2013-14	15.83	35.71	20.21
2014-15	15.86	15.54	15.78
2015-16	4.71	19.19	8.30
2016-17	3.96	49.51	16.41
2017-18	8.25	10.64	9.09
2018-19 (P)	0.22	21.87	7.93
CAGR (%)	9.29	37.65	19.16

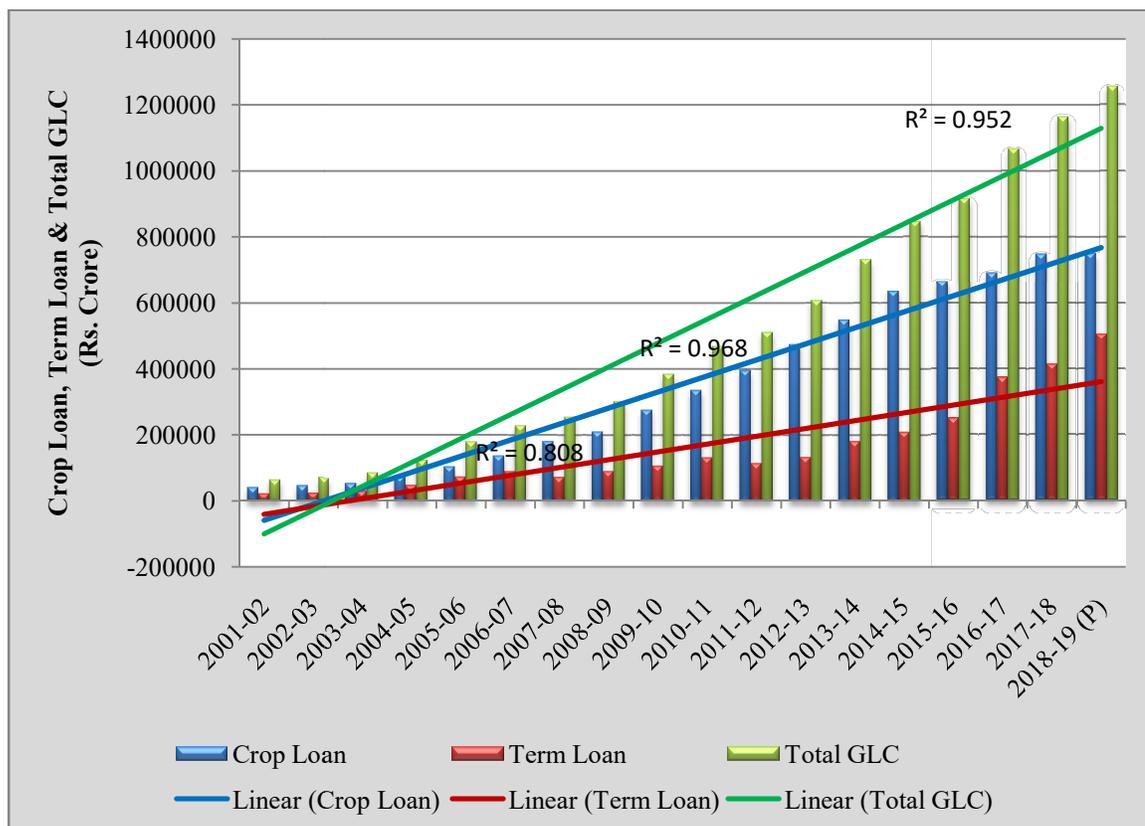
Source: Same as above Table

Figure 4.3: Year Wise Growth Rate of GLC i.e. Crop Loan & Term Loan



Source: Same as Above Table

Figure 4.4: Trend Line of GLC i.e. Crop Loan & Term Loan



Source: Same as Above Table

Above table 4.6 and figures 4.3 & 4.4 captured the scenario of different categories (i.e. Crop Loan & Term Loan) of Ground Level Credit (GLC) during 2001-02 to 2018-19. The annual growth rate of crop loan and term loan showed fluctuating trend during the study period. In 2007-08 and 2011-12, the annual growth rate of term loan showed a negative result but after that it started increasing at a high rate as government has given enough emphasis. As a result of this the Compound Annual Growth Rate (CAGR) reached at 37.65 % during the study period, which indicated that the growth performance of term Loan has started improving from 2012-13. The trend line of term loan also showed upward and a high value of R^2 (0.808) suggested that trend line has been properly fitted. On the other hand, the annual growth rate of crop loan was impressive upto 2014-15, but after that it was increasing at a low rate. As a result the CAGR of crop loan was 9.29 % during the study period. The trend line of crop loan showed upward and high value of R^2 (0.968) suggested that the line has been properly fitted. Thus, the growth

performance of Crop Loan in terms of CAGR to the agriculture sector is not found satisfactory during the study period and the growth performance of Term Loan has started improving from 2012-13.

4.5: Kishan Credit Card (KCC) Scheme in India

4.5.1: Status of KCC Scheme

The Kishan Credit Card (KCC) scheme introduced during 1998-99 for short-term (ST) loans for Seasonal Agricultural Operations (SAO) has since been implemented in all the states and union territories by public sector Commercial Banks, State Co-operative Banks/ District Central Co-operative Banks (SCBs/ DCCBs) and RRBs. The NABARD has taken several steps and organized numerous workshops and seminars during 2002-03 to encourage the banks to issue KCCs so that all eligible farmers are covered by March 2004 (**NABARD annual Report, 2002-03**)¹⁵. The Kishan Credit Card (KCC) scheme was mainly introduced for marginal farmers, share croppers, oral lessee and tenant farmers in order to provide hassle free and timely credit for their agricultural operation.

The major objectives of Kishan Credit Card (KCC) scheme are as follows:

- i) To provide the short-term credit to all eligible farmers for cultivation of crops.
- ii) To meet the post harvest expenses.
- iii) Provide loan for agricultural marketing.
- iv) To meet the consumption requirements of farmer household.
- v) To facilitate working capital for maintenance of farm assets and activities allied to agriculture like dairy animals, inland fishery etc.
- vi) In order to provide investment credit for agriculture and allied activities like pump sets, sprayers, dairy animals etc.

The major features of revised KCC scheme are as follows (**State of Indian Agriculture, 2017**)¹⁶:

- i) Assessment of crop loan component based on the scale of finance for the crop plus insurance premium x extent of area cultivated + 10 % of the limit towards post- harvest/ household/ consumption requirements +20 % of limit towards maintenance expanses of farm assets.

- ii) The marginal farmers are advised to take flexible KCC with simple assessment.
- iii) The time duration of KCC is 5 years.
- iv) No separate margin need to be insisted for crop loan because the margin is already incorporated in scale of finance.
- v) No withdrawal in the account to remain outstanding for more than 12 months; no need to bring the debit balance in the account to zero at any point of time.
- vi) The framers will be rewarded with interest subvention/ incentive for prompt repayment as per the Government of India and / or State Government norms.
- vii) No processing fee will be charged up to a limit of Rs. 3.00 lakh.
- viii) The documentation is only required at the time of first availment and thereafter simple declaration (about crops raised/ proposed) by the farmers.
- ix) KCC cum Saving Bank (SB) account instead of farmers having two separate accounts. The credit balance in KCC cum SB accounts to be allowed to fetch interest at savings bank rate.
- x) Disbursement through various delivery channels, including ICT driven channels like ATM/ PoS/ Mobile handsets.

Table 4.7

Agency wise KCCs-Cumulative Cards Issued and Amount Outstanding as on 31st

March 2018 (Provisional)

(Amount in Rs. Crore and Number in Lakh)

(Figures in parentheses indicate the Percent)

Name of the Agency	Cumulative Cards issued since inception	Amount Outstanding under operative KCCs
Commercial Banks	926.99 (52.47)	391134.08 (57.00)
Co-operative Banks	550.21 (31.14)	126608.14 (18.45)

Regional Rural Banks	289.49 (16.39)	168440.72 (24.55)
Total	1766.68 (100.00)	686182.94 (100.00)

Source: Agricultural Statistics at a Glance 2018. (agricoop.gov.in)¹⁷

The above table 4.7 depicts agency wise KCCs- Cumulative Cards issued and amount outstanding as on 31st March 2018. It is found that the KCC scheme has played a big role for agricultural credit and brought about a huge change in improving the reach of credit to the farming community. Since inception 1766.68 lakh Kishan Credit Card (KCC) has been issued as on 31st March 2018. The Commercial Banks has played a dominant role by issuing 926.99 lakh KCCs i.e. 52.47 % of the total as on 31st march 2018, followed by Co-operative Banks 550.21 lakh KCCs (i.e.31.14 %). On the other hand, only 289.49 lakh KCCs (i.e. 16.39 %) has been issued by RRBs. It is also found that a total amount of Rs. 686182.94 Crore outstanding under operative KCCs as on 31st March 2018, out of which Commercial Banks covered the amount of Rs. 391134.08 Crore (i.e. 57.00 %), followed by RRBs and Co-operative Banks are 24.55 % and 18.45 % of the total amount of outstanding respectively.

4.5.2: Improvement of KCC Scheme

In order to improve the KCC scheme the Reserve of India suggested the following measures (**RBI, 2019**)¹⁸:

- i) With the aim of simplifying the credit, the limit of Rs. 3 lakh for waiving collateral security by the banks should be revised to Rs. 5 lakh under the existing KCC guideline in case of tie-up arrangements. It is also advised that there should not be any intermediaries between the producers and processing units in case of tie-up arrangements in KCC scheme.
- ii) The Reserve of India advised that there should be uniformity in scale of finance (SoF) for both crops and allied activities with the intention of better supervising of branches by banks and easier implementation of KCCs.

- iii) The KCC scheme has a limit of an inbuilt component of 10 per cent for consumption requirements of the farmers. In order to increase the institutional credit for the farmers, the Reserve of India advised to encourage the banks to give credit to agricultural households for consumption purposes.
- iv) In order to curb the miss-utilisation of interest subsidy, banks should provide crop loans, eligible for interest subvention, only through KCC mode.

4.6: Assessment of Progress in Agricultural Credit in India

4.6.1: Annual Growth Rate of Agriculture and Allied Sector in Gross Value Added (GVA) at Factor Cost at Constant Prices

Agriculture and its allied sectors are one of the most important sectors of the Indian Economy. In terms of contribution towards the Gross Domestic Product (GDP) which is estimated with help of Gross Value Added (GVA) as it is the production approach. Generally the Agriculture and Allied Sectors consist of four sub-sectors namely-

- i) Crop Sector.
- ii) Livestock
- iii) Fisheries
- iv) Forestry

These sectors again divided into several areas on the basis of their economic activities. The Crop Sector consists of field crops, plantation crops, horticulture crops, drugs and narcotics crops and others. On the other hand, livestock includes production of milk, meat, eggs, wool, dung, etc. According to the contribution in terms of value of output from the agriculture and allied sectors in the Triennium Ending (T E) 2014-15 with base year 2011-12, the crop sector contributed 61.31 per cent of the total Value of Production (VoP), followed by livestock (26.80 %), Forestry (7.39 %) and Fisheries (4.50 %) sectors (**farmer.gov.in**)¹⁹.

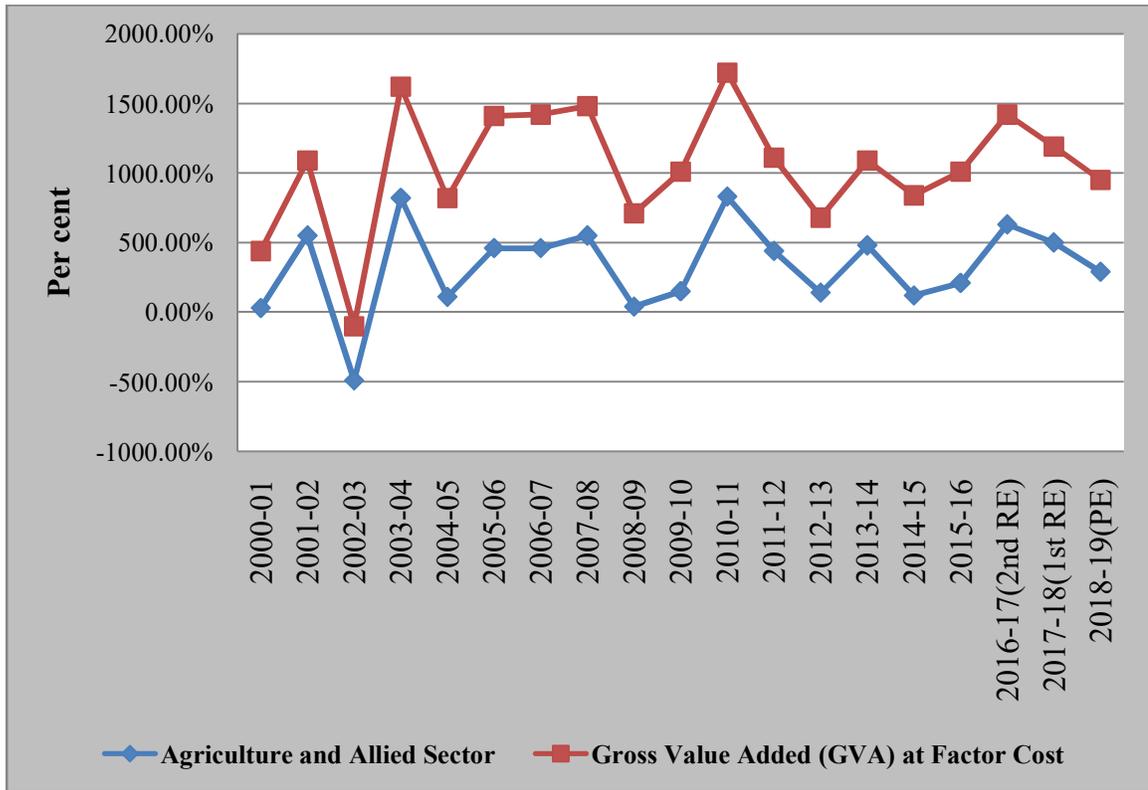
Table 4.8
Annual Growth Rate of Agriculture and Allied Sector in Gross Value Added (GVA)
at Factor Cost at Constant Prices
(Percent)

Year	Agriculture and Allied Sector	Gross Value Added (GVA) at Factor Cost
At 2004-05 Prices		
2000-01	0.3	4.1
2001-02	5.5	5.4
2002-03	-4.9	3.9
2003-04	8.2	8.0
2004-05	1.1	7.1
2005-06	4.6	9.5
2006-07	4.6	9.6
2007-08	5.5	9.3
2008-09	0.4	6.7
2009-10	1.5	8.6
2010-11	8.3	8.9
2011-12	4.4	6.7
At 2011-12 Prices		
2012-13	1.4	5.4
2013-14	4.8	6.1
2014-15	1.2	7.2
2015-16	2.1	8.0
2016-17(2 nd RE)	6.3	7.9
2017-18(1 st RE)	5.0	6.9
2018-19(PE)	2.9	6.6
AAGR	12.6	2.6

Source: Economic Survey Statistical Appendix, 2018-19 (www.indiabudget.gov.in)²⁰

Note: PE= Provisional Estimates, RE= Revised Estimates

Figure 4.5: Performance of Agriculture in terms of Growth Rate



Source: Same as Above Table

The above table 4.8 and figure 4.5 depicted the Annual Growth rate of Agriculture and Allied Sectors in Gross Value Added (GVA) at factor cost at Constant Prices from the year 2000-01 to 2018-19. The whole study period has divided into two parts i.e. 2000-01 to 2011-12 with the base year 2004-5 and 2012-13 to 2018-19 with the base year 2011-12. Till date the monsoon remains the important factor impacting most on the prospect of Indian Agriculture. It is found from the above table that the growth of GVA of agriculture and allied sectors has witnessed a fluctuating trend throughout the study period. The agricultural growth in terms of GVA (with the base year 2004-05) started increasing 0.3 per cent in 2000-01 to 5.5 per cent in 2001-02 but a recorded fall of -4.9 per cent in 2002-03. After that, agricultural sector achieved a recorded growth of 8.2 percent which was even higher than the overall GVA at factor cost in 2003-04. Again it slipped from the peak to 1.5 per cent in 2009-10. The growth rate of GVA in agriculture saw a fall at 4.4 per cent in 2011-12 after reaching a peak of 8.3 per cent in 2010-11.

As per the new series estimates with base year 2011-12, the overall scenario of agricultural growth rate in terms of GVA at factor cost has not changed significantly. It started increasing from 1.4 per cent in 2012-13 to 6.3 per cent in 2016-17 and finally settled down to 2.9 per cent in 2018-19. If the agricultural growth is compared with the overall rate of growth of GVA at factor cost, it is also not found satisfactory throughout the study period. During 2018-19, as per the provisional estimates, the agriculture and allied sector is estimated a growth of 2.9 per cent as compared to the overall growth of 6.6 per cent. The Average Annual Growth Rate (AAGR) of Agriculture and Allied sector was higher (12.6 percent) in the study period but the AAGR of agricultural growth in terms of GVA at factor cost was quite low (2.6 percent). In order to increase the share of agriculture sector the Dalwai Committee on Doubling farmers' Income (DFI) advocated that a strong linkages of agriculture sector with manufacturing and service sectors and the 'Agricultural Unit' must be transform into 'Agricultural Enterprise' and the Government of India increased focus on infrastructure, marketing and product enhancement of agricultural sector under the Union Budget 2018-19 (**NABARD Annual Report, 2017-18**)²¹.

4.6.2: Impact of Credit Expansion to Different Size-Groups in Agricultural Sector

An Operational Holding can be defined as "all land which is used wholly or partly for agricultural production and is operated as one technical unit by one person alone or with others without regard to the title, legal form, size or location" (**Datt G & Mahajan A, 2011**)²². The size of operational holding can be classified into 5 categories, these are as follows- i) Marginal Holding (Less than 1 hectare), ii) Small Holding (1.0 to 2.0 hectare), iii) Semi-Medium Holding (2.0 to 4.0 hectare), iv) Medium Holding (4.0 to 10.0 hectare) and v) Large Holding (10.0 hectare and above). Economists have been engaged in a debate on the relationship between farm size and farm productivity since long. Some economists suggest that there must be positive relationship, while others argue for the negative relationship but it is certain that the frequency of poverty is much higher on the marginal and small operational holders. As per the 'Situation Assessment Survey of Agricultural Households 2013', the proportion of agricultural households having access to credit from institutional sources was about 60 per cent and it was also found from the

survey that the farmers of marginal holding were having only 15 per cent of outstanding from institutional sources vis-à-vis about 79 per cent in case of the farmers of large holdings. In order to protect the small and marginal farmers from the exploitation of moneylenders, it is important to provide more shares in the total flow of funds in the institutional credit to the small and marginal farmers (**State of Agriculture 2017, 2018**)²³.

Table 4.9
Share of Total Institutional Credit taken for Agricultural Purposes by different
Size-Groups during the year 2010-11

(Per cent)

Size Group (Hectare)	Share of Operational Holdings	Share of Area Operated by different Size- Groups	Share of Operational Holdings that took Institutional Credit	Share of Institutional Credit taken by different Size- Groups
Marginal (Less than 1 Hectare)	67.10	22.50	55.67	37.29
Small (1.0 to 2.0 Hectare)	17.90	22.10	23.14	23.29
Semi- Medium (2.0 to 04.0 Hectare)	10.05	23.60	13.82	20.45
Medium (4.0 to 10.0 Hectare)	4.25	21.20	6.32	15.02
Large	0.70	10.60	1.05	3.95

(10.0 Hectare & Above				
Total	100.00	100.00	100.00	100.00

Source: Agricultural Statistics at a Glance, 2018. (agricoop.gov.in)²⁴

The above table 4.9 describes share of total institutional credit taken for agricultural purpose by different size-groups during the year 2010-11. According to **(NABARD Annual Report, 2015-16)**²⁵, the share of marginal holding increased from 51.0 percent in 1970-71 to 65.10 per cent out of total holding in 2000-01 and the area operated by marginal holding also increased from 9.0 per cent in 1970-71 to 18.7 per cent out of total area in 2000-01. In case of small holding, its share also increased from 18.9 per cent to 19.6 per cent and area under operation increased from 11.9 per cent to 20.2 per cent during the same time period. Now, this is compared with the above table, it is found that the share of marginal holding even increased to 67.10 per cent in 2010-11 and as well as the share area operated by marginal holding increased to 22.50 per cent in 2010-11. The share of small, semi-medium, medium & large holding are 17.90 %, 10.05%, 4.25 % & 0.70 % in 2010-11 respectively and the share of area operated by these holdings are 22.10 %, 23.60 %, 21.20 % & 10.60 % respectively.

The small and marginal land holdings together covered 85 per cent of total holdings (2010-11) and hold 44.6 per cent of the cultivated area. It is also seen that these two holdings together (i.e. 78.81 per cent of the total estimated number of operational holdings) have taken the institutional credit in 2010-11 and 60.58 per cent share of the total institutional credit supplied by the different agencies in 2010-11. On the other hand, the rest of the holdings (semi-medium, medium & large) together (i.e. 21.19 % of the total operational holdings) taken the institutional credit and 39.42 per cent share of the total institutional credit in 2010-11.

In order to increase the production and income in the agricultural sector at the micro level, the size and scale of operation can influence a lot and which may also become critical at the micro level. It is clearly found from the above table that there is an improvement in the flow of institutional credit towards the small and marginal size of land holdings. With a view to focus on small and marginal farmers, there has been

progressively increasing the allocation towards institutional credit for agriculture sector between 2001-02 and 2018-19. With the objective of deepening financial inclusion by catering to small and marginal farmers, the Reserve Bank of India granted in-principle approval for set up Small Finance Bank (SFBs) in September 2015 and also suggested to revise the sub-target for small and marginal farmers from the existing 8 per cent of ANBC to 10 per cent with a roadmap of two years (RBI, 2019)²⁶.

4.6.3: Progress of Agricultural Production of Major Crops

The larger portion of cultivators in India belong to the small and marginal farmers and also their savings are too little to effort their cultivation. The major factors like agricultural inputs, technological change and technical efficiency can influence the agricultural growth of the country. In this situation agricultural credit can be emerged as an indispensable input along with modern technology for greater production and productivity in agricultural and allied sector in India. (Das A, Senapati M & John J, 2009)²⁷ suggested that the direct agricultural credit has a positive and satisfactory significant impact on agricultural output and its effects is immediate and the number of accounts of indirect agricultural credit also has a positive significant impact on agricultural output, but with a year lag. They also found that agricultural credit has been rising in recent years as a share of both the value of inputs and value of output.

Table 4.10
Year wise progress of Agricultural Production of Major Crops
(Million Tonnes)

Crop	Year								
	2000-01	2010-11	2011-12	2012-13	2013-14	2014-15	2105-16	2016-17	2017-18#
Food Grains	196.8	244.5	259.3	257.1	265.0	252.0	251.6	275.1	284.8
Oilseeds	18.4	32.5	29.8	30.9	32.7	27.5	25.3	31.3	31.3

Sugar cane	296.0	342.4	361.0	341.2	352.1	262.3	348.4	306.1	376.9
Cotton	9.5	33.0	35.2	24.2	35.9	34.8	30.0	32.6	34.9
Jute & Mesta	10.5	10.6	11.4	10.9	11.7	11.1	10.5	11.0	10.1

Source: Economic Survey Statistical Appendix, 2018-19 (www.indiabudget.gov.in)²⁸.

Note: # as per 4th Advance Estimates

Table 4.11

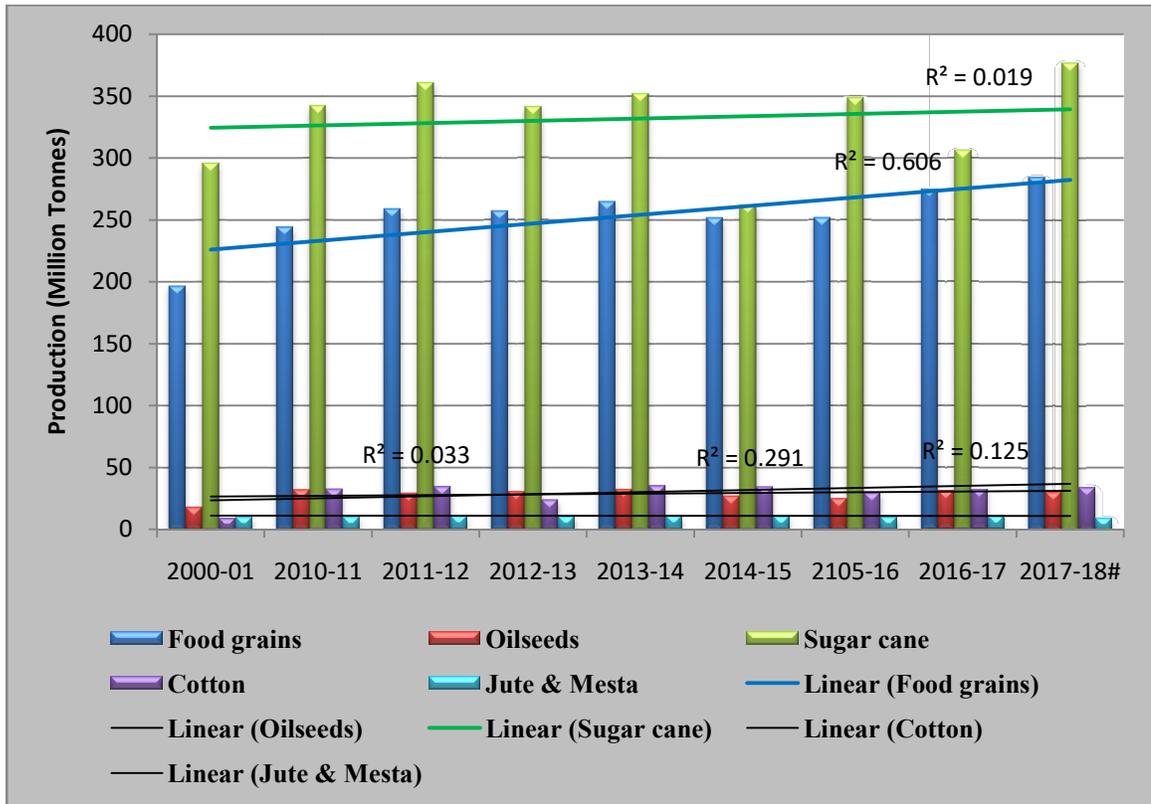
Average Annual Growth Rate (AAGR) of Major Crops Production from 2010-11 to 2017-18

(Percentage)

	Food Grains	Oilseeds	Sugarcane	Cotton	Jute & Mesta
AAGR (2010-11 to 2017-18)	2.18	-0.54	1.37	.80	-0.69

Source: Same as Above Table

Figure 4.6: Performance of Production of Major Crops from 2000-01 to 2017-18



Source: Same as Above Table

The above table 4.10 and figure 4.6 described the year-wise progress of agricultural production of major crops in India Agriculture during the period of 2000-01 to 2018-19 (P). The growth of agricultural output has been low as well as volatile from the period of 2000-01 to 2018-19 (P). The volatility in agricultural production has not affected the overall growth. The production of Food Grains has increased from 196.8 million tonnes in 2000-01 to 284.8 million tonnes in 2018-19 (P). In case of Oilseeds, production growth was recorded from 18.4 to 31.3 million tonnes during the above period. On the other hand, the production of Sugarcane and Cotton are witnessed the growth from 296.0 to 376.9 million tones, 9.5 to 34.9 million tonnes during the same period respectively. In case of Jute & Mesta, the production was increased from 10.5 million tonnes in 2000-01 to 11.7 million tonnes in 2013-14, but it came down to 10.1 million tonnes in the year 2018-19(P).

In case of Average Annual Growth Rate (AAGR) of food grain production was only 2.18 % during 2010-11 to 2017-18 and the trend line showed upward with low value of R^2 (0.606) suggested that the progress of food grain was not quite impressive. The AAGR of oilseeds, sugarcane, cotton and jute & mesta also found low i.e. -0.54, 1.37, 0.80 & -0.69 and their trend line showed less step with low value of R^2 (i.e. not best fitted) suggested that the progress of non-food grains productions were not quite impressive.

4.6.4: Progress of Yield per Hectare of Major Agricultural Crops

(Das A, Senapati M & John J, 2009)²⁹ found that India is not only having low agricultural productivity compare to other countries but also there are considerable inter-state variations. The Steering Committee on Agriculture for Eleventh Five Year Plan has also observed the same.

Table 4.12

Year wise progress of Yield per Hectare of Major Agricultural Crops

(Kg/ Hectare)

Crop	Year								
	2000-01	2010-11	2011-12	2012-13	2013-14	2014-15	2105-16	2016-17	2017-18#
Food grains	1626	1930	2078	2079	2120	2028	2042	2129	2233
Oilseeds	810	1193	1133	1168	1168	1075	968	1195	1270
Sugar cane	69000	70000	72000	68000	71000	71000	71000	69000	80000
Cotton	190	499	491	486	510	462	415	512	477
Jute & Mesta	1867	2192	2268	2281	2512	2473	2421	2585	2481

Source: Economic Survey Statistical Appendix, 2018-19 (www.indiabudget.gov.in)³⁰

Note: # as per 4th Advance Estimates

Table 4.13
Average Annual Growth Rate (AAGR) Yield per Hectare of Major Crops from
2010-11 to 2017-18

(Percentage)

	Food Grains	Oilseeds	Sugarcane	Cotton	Jute & Mesta
AAGR (2010-11 to 2017-18)	2.08	0.89	1.91	-0.64	1.77

Source: Same as Above Table

The above table 4.12 illustrates year-wise progress of Yield Per Hectare of Major Agricultural Crops during the period of 2000-01 to 2018-19 (P). The volatility can also be seen in agricultural productivity in India Agriculture during the above time period. The productivity of Food Grains in 2000-01 varied from 1626 kg per hectare to 2233 kg per hectare in 2018-19(P). In case of Oilseeds, productivity growth was recorded from 810 kg per hectare to 120 kg per hectare during the study period. On the other hand, the productivity of Sugarcane and Cotton are witnessed the growth from 69,000 to 80,000 kg per hectare and 197 to 477 kg per hectare during the same period respectively. Lastly, the productivity of Jute & Mesta increased from 1867 kg per hectare in 2000-01 to 2481 kg per hectare in 2018-19(P).

For performance of yield per hectare of major agricultural crops, we have calculated the Average Annual Growth Rate (AAGR) of yield per hectare of major crops during 2011-12 to 2017-18. The low value of AAGR (i.e. 2.08 %) suggested that the progress of yield per hectare of food grain production was not quite impressive. The result remained same in case of non-food grains productivity as the value of AAGR remained low during 2011-12 to 2017-18.

4.6.5: Gross Capital Formation in Agriculture and Allied Sectors

The Gross Capital Formation (GCF) is used as a tool to measure of investment and it also refers to the aggregate of gross additions to the fixed assets (i.e. fixed capital formation) and change in stocks during the reference period. The capital formation in agriculture

includes livestock, fixed assets comprise machinery, farm equipment (i.e. breeding stock, draught animals, dairy cattle, etc.), irrigation, land improvement and others (**State of Agriculture-2017, 2018**)³¹. There are two most important sources of capital formation in agriculture and allied sectors- i) Private Sector, and ii) Public Sector. Private Sector GCF in agriculture and allied sector incorporates farm households and private corporate sector. On the other hand, Public Sector Investment (i.e. Government Investment) is generally used to accelerate private investment. The public investments in major & minor irrigations, rural roads, power, telecommunications, marketing infrastructure, research and extension services guide to result in high growth of the agricultural sector and reduction in poverty (**NABARD Annual Report, 2012-13**)³².

Table 4.14

Gross Capital Formation in Agriculture and Allied Sectors (At 2004-05 Prices)

Year	GDP from Agriculture & Allied Sectors (Rs. in Crore)	GCF in Agriculture & Allied Sectors (Rs. in Crore)			GCF in Agriculture & Allied Sectors as % of GDP from Agriculture & Allied Sectors		
		Public Sector	Private Sector	Total	Public Sector	Private Sector	Total
2004-05	5,65,426	16,187	59,909	76,096	2.9	10.6	13.5
2005-06	5,94,487	19,940	66,664	86,604	3.4	11.2	14.6
2006-07	6,19,190	22,987	69,070	92,057	3.7	11.2	14.9
2007-08	6,55,080	23,255	82,484	1,05,741	3.5	12.6	16.1
2008-09	6,55,689	20,572	1,06,555	1,27,127	3.1	16.3	19.4
2009-10	6,60,987	22,693	1,10,469	1,33,162	3.4	16.7	20.1

2010-11	7,13,477	19,918	1,11,306	1,31,224	2.8	15.6	18.4
2011-12	7,39,495	22,095	1,24,483	1,46,578	3.0	16.8	19.8

Source: NABARD Annual Report, 2012-13. (www.nabard.org)³³

The above table 4.14 shows the Gross Capital Formation (GCF) in Agriculture and Allied Sector at 2004-05 Prices during the period of 2004-5 to 2011-12. As increasing in investment in agriculture is one of the major priorities, but the above data reflects a mixed trend in GCF in agriculture and allied sectors. During the study period, the public investment is dominated by private investment. The private investment has increased from Rs. 59,909 Crore in 2004-05 to Rs. 1,24,483 Crore in 2011-12. In case of GCF in agriculture and allied sector, it increased from Rs. 76,096 Crore in 2004-05 to Rs. 1,46,578 Crore in 2011-12. It is also found from the above table that the Gross Capital Formation (GCF) in agriculture and allied sectors as percentage of agricultural GDP has increased from 13.5 % in 2004-05 to 19.8 % 2011-12. But, if it is compared with the overall capital formation in the economy, it witnessed much lower.

Table 4.15

Gross Capital Formation in Agriculture and Allied Sectors (At 2011-12 Prices)

Year	GCF in Agriculture & Allied Sector (Rs. in Crore)			GVA in Agriculture & Allied Sector	GCF in Agriculture & Allied Sectors as % of GVA of Agriculture & Allied Sector		
	Public Sector	Private Sector	Total		Public Sector	Private Sector	Total
2012-13	36019	215075	251094	1524288	2.4	14.1	16.5
2013-14	33925	250499	284424	1609198	2.1	15.6	17.7
2014-	37172	235491	272663	1605715	2.3	14.7	17.0

15							
2015-16	39105	193734	232839	1616146*	2.4	12.0	14.7
2016-17	45981	219371	265352	1717467#	2.7	12.8	15.6
2017-18	NA	NA	273755	1803039@	NA	NA	15.2

Source: Economic Survey, Volume 2, 2018-19. (www.thehinducentre.com)³⁴

Note: * Third Revised Estimate, # Second Estimate, @ First Estimate.

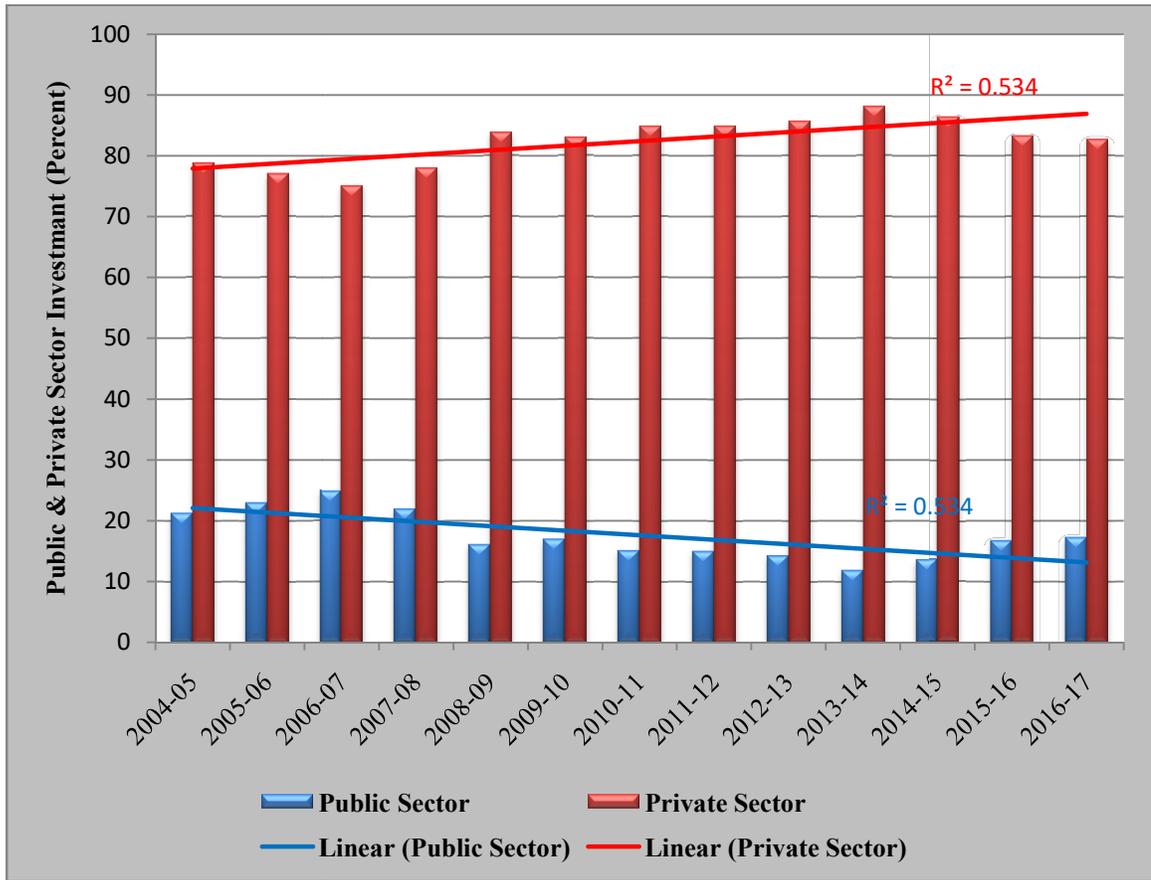
The above table 4.15 depicts the Gross Capital Formation (GCF) in Agriculture and Allied Sector at 2011-12 Prices and also GCF in agriculture & allied sectors as a percentage of GVA of agriculture and allied sector. The Gross Value Added (GVA) is total rupee value for the amount of goods and services produced in an economy after deducting the cost of inputs and raw materials that have gone into the production of those goods and services and the GVA gives a picture of the state of economic activity from the producers' side or supply side but the GDP gives the picture from the consumers' side or demand perspective, which can provide better help to the policymakers (Nayak G, 2017)³⁵. During the above study period, still public investment is dominated by private investment in agriculture and allied sector, the share of public investment in agriculture and allied sectors has registered an increasing trend from 2013-14 to 2016-17. The GCF in agriculture and allied sectors has increased from Rs. 2,51,094 Crore in 2012-13 to Rs. 2,73,755 Crore in 2017-18. It is also found that GCF in agriculture and allied sectors as a percentage of GVA has increased from 16.5 % in 2012-13 to 17.7 % in 2013-14 but thereafter declined to 15.2 % in 2017-18. The above analysis has shown that there is an increasing trend in private investment and which reflects the formal credit is playing a greater role in financing such investment. In order to boost the supply response in agriculture and save on large wastages in the supply chain, there would require large investment in the whole supply chain and agricultural research & development to get High Yield Variety (HYV) seeds.

Table 4.16**Share of Public and Private Sector investment in Total GCF in Agriculture & Allied Sectors****(Per cent)**

Year	Share in Total GCF in Agriculture & Allied Sector		
	Public Sector	Private Sector	Total
2004-05	21.28	78.72	100.00
2005-06	23.02	76.98	100.00
2006-07	24.97	75.03	100.00
2007-08	21.99	78.01	100.00
2008-09	16.18	83.82	100.00
2009-10	17.04	82.96	100.00
2010-11	15.18	84.82	100.00
2011-12	15.07	84.93	100.00
2012-13	14.34	85.66	100.00
2013-14	11.93	88.07	100.00
2014-15	13.63	86.37	100.00
2015-16	16.79	83.21	100.00
2016-17	17.33	82.67	100.00
2017-18	NA	NA	100.00

Source: NABARD Annual Report, 2012-13 for data 2004-05 to 2011-12 (**Same as Table 4.14**) and Economic Survey Statistical Appendix, Volume 2, 2018-19 for data 2012-13 to 2017-18 (**Same as Table 4.15**).

Figure 4.7: Performance of Public and Private Sector investment in terms of the share in total GCF in Agriculture and Allied Sectors



Source: Same as Above Table

The above table 4.16 and figure 4.7 also depicted the share of Public and Private Sector investment in total GCF in Agriculture and Allied Sectors during the period 2004-05 to 2017-18. It is found from the following table private sector contributed a larger portion in total GCF in agriculture and allied sectors throughout the study period i.e. 78.72 per cent in 2004-05, which increased to 88.07 per cent in 2013-14. After reaching a peak, the share of private sector has slightly fallen to 82.67 per cent in 2016-17. On the other hand the share of public sector investment has reduced from 21.28 per cent in 2004-05 to 11.93 per cent in 2013-14, but again it started increasing and reached at 17.33 per cent of the total in 2017-18. The trend line slope of the share of public investment in total GCF in agriculture is not upward and the value of R^2 (0.534) suggests that the performance of public sector investment is not satisfactory. But the trend line of the share of private investment in total GCF shows upward but the value of R^2 (0.534) suggests that the

performance of private investment needs to be improved. According to the definition of private investment, it refers to the investment made by the farmers themselves, which is may be an outcome of own savings and borrowings from institutional and non-institutional credit sources. As it is established by the Dalwai Committee on Doubling farmers' Income (DFI) that institutional credit bears a positive relation with private investment, so a substantial increase in resource allocation to the agricultural sector along with the institutional credit needs to be increased (**farmer.gov.in**)³⁶.

4.7: Role of Institutional Credit for supporting Rural Financial Institutions (RFIs)

The goal of sustainable rural prosperity presupposes the existence of strong financial institutions with a view to meeting the credit needs of the rural population. NABARD, as an apex development financial institution has been pursuing this goal by supporting financial institutions through various financial and non-financial supports, policy interventions and effective supervision (**NABARD Annual Report, 2016-17**)³⁷.

Under the provision of Section 21.(1) of the NABARD Act, 1981(**www.nabard.org**)³⁸, NABARD provides refinance, loans and advances through various institutions (i.e. Commercial Banks, Regional Rural Banks, Co-operative Banks and any others), which are approved by the Reserve bank of India. Refinance is provided by NABARD for the purpose of covering both investment and production credit in farm and non-farm activities. The prime aims of NABARD's refinance business both Short-term and long-term credit are to improve health status of the rural financial institutions and also maintain the regional and inter-sectoral balance of the country.

The refinance provided by NABARD is for different activities, covering both farm sector and non farm sector activities. In order to guide this credit flow, the major objectives set by NABARD needs to be considered as follows (**Pinamkar N V, 2018**)³⁹-

- i) To hold up National Policies for increasing agricultural production and rural employment through efficient use of national resources.
- ii) To improve the marketing of crops and distribution of inputs for developing agricultural and rural sector.

- iii) To increase the credit absorptive capacity of the credit delivery system by improving the health of the agencies through disbursement of credit.
- iv) Proper control of technical and financial parameters and propagation of the repayment ethics should be adopted in order to improve the quality of credit
- v) To improve the regional and inter-sectoral balance of the country.
- vi) Some special programmes like Integrated Rural Development Programme (IRDP) have been taken to ensure credit support and equitable distribution of growth to the weaker sections of the society.

In order to provide proper credit facilities to the large number of farmers and rural artisans of India, refinance is the right mechanism of NABARD through various eligible financial institutions such as State Cooperative banks, Regional Rural banks, Land Development Banks, Cooperative Credit Societies and Commercial banks. Therefore, the refinance function of NABARD is the utmost instrument to support the rural financial institutions. The refinance is provided by NABARD for two different purposes- i) Short term credit and ii) Long term credit.

4.7.1: Short Term Credit

The NABARD grants short term credit mainly for production purpose covering both the farm and non-farm sectors. The short term refinance is given for multiple purposes such as seasonal agricultural operations (SAO), marketing of crops, distribution of the inputs (equipments, seeds, fertilizers, pesticides etc.), fisheries sector, forest labour cooperative societies and working capital requirement of co-operative sugar factories, procurement of raw materials, production and marketing activities of rural artisans. The period of this type of refinance is generally 18 months (Pinamkar N V, 2018)⁴⁰.

Table 4.17

Agency wise progress of Disbursement of Short-Term (ST) Refinance

(Amount in Rs. Crore)

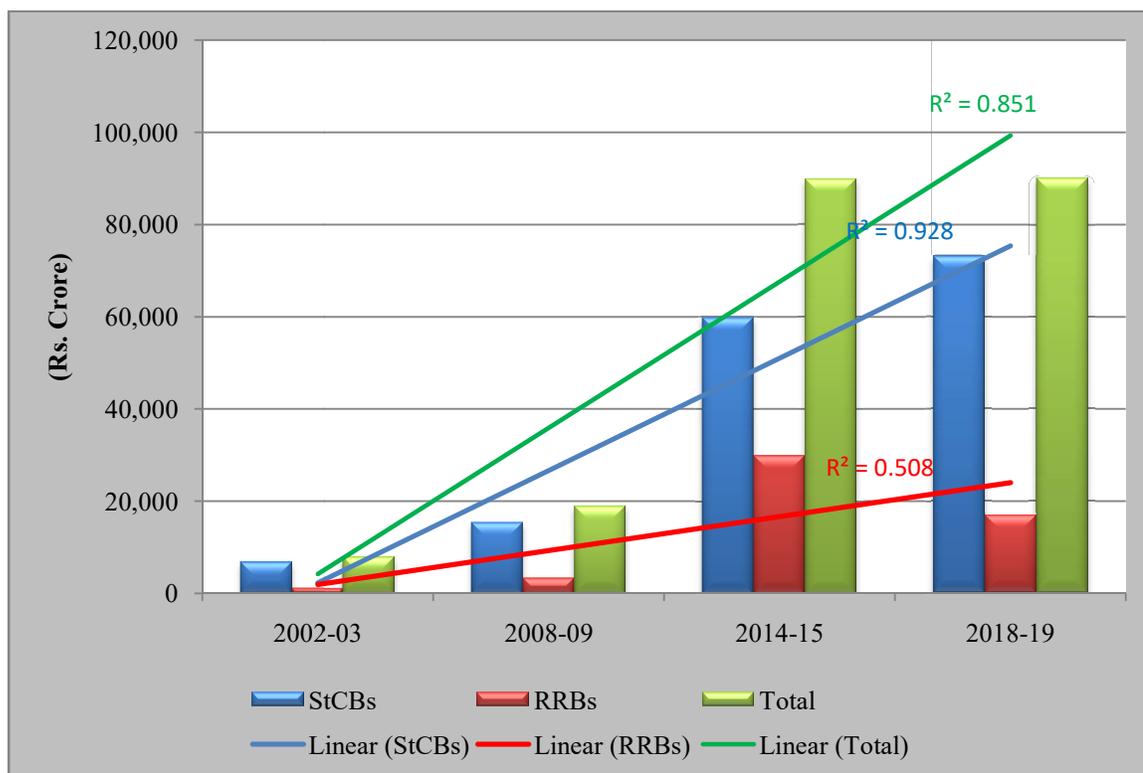
Agency	Year			
	2002-03	2008-09	2014-15	2018-19
StCBs	6,747	15,448	59,800	73,143

RRBs	1,252	3,547	30,000	16,946
Total	7,999	18,995	89,800	90,089

Source: NABARD Annual Reports compiled and computed (2002-03, 2008-09, 2014-15 & 2018-19) (www.nabard.org).

Note: StCBs= State Co-operative Banks, RRBs= Regional Rural Banks.

Figure 4.8: The Trend Line of Short-Term (ST) Refinance during 2002-03 to 2018-19



Source: Same as above Table

The above table 4.17 depicts agency wise progress of disbursement of short term (ST) refinance operations during 2002-03 to 2018-19. It is found from the above table that the total disbursement of short term refinance gradually increased from Rs. 7,999 crore to Rs. 90,089 crore during the period of 2002-03 to 2018-19. The State Co-operative Banks has played the dominant role in providing the short term refinance. During the year 2002-03 the total amount of Rs. 6,747 crore short-term refinance is provided by StCBs, which gradually increased to Rs. 73,143 crore in the year 2018-19. On the other hand, RRBs

could disburse only the amount of Rs. 1,252 crore in 2002-03, which increased to Rs. 16,946 crore in the year 2018-19.

The above figure 4.8 showed the trend line of disbursement of short-term refinance of StCBs and RRBs during 2002-03 to 2018-19. The trend line of StCBs in terms of short-term refinance showed upward and a high value of R^2 (0.928) suggested that the trend line has properly fitted and the performance StCBs is quite well as compared to the RRBs. The trend line of overall disbursement of Short-Term refinance showed upward and a high value of R^2 (0.851) suggested that the trend line has properly fitted and the performance of short-term refinance was satisfactory during the study period.

4.7.2: Long Term Credit

The long term credit is generally required for investment purposes, because capital investment is aimed to create long term assets. The long-term loan also required to upgrade the technology, which increases the production and productivity and as well as the income to the farmers and entrepreneurs. NABARD provides long term refinance support to Regional rural Banks, Commercial Banks, Cooperative Banks, State Cooperative Agriculture and rural development Banks (SCARDBs), Non-Banking Financial Companies (NBFCs) and other eligible institutions with the repayment period ranging from 3 to 15 years. Long term refinances are basically needed for various purposes, such as farm investments, allied activities, small and micro-enterprises, agro-processing, organic farming, non-conventional energy, Self- Help Groups (SHGs) and rural housing to ensure a steady flow of income generation to farm and non-farm sectors (NABARD Annual Report 2014-15)⁴¹.

Table 4.18

Agency wise progress of Disbursement of Long-Term (LT) Refinance

(Amount in Rs. Crore)

Agency	Year			
	2002-03	2008-09	2014-15	2018-19
StCBs	1,784	801	3,818	6,464

RRBs	1,539	1,879	10,221	13,862
SCBs	1,242	5,867	13,675	54,082
NBFCs	--	--	--	12,764
SCARDBs	2,853	1,987	2,924	1,936
NABARD Subsidiaries	--	--	--	1,146
Others	01	01	789	--
Total	7,419	10,535	31,427	90,254

Source: NABARD Annual Reports compiled and computed (2002-03, 2008-09, 2014-15 & 2018-19) (www.nabard.org).

Note: StCBs= State Co-operative Banks, RRBs= Regional Rural Banks, SCBs= Scheduled Commercial Banks, NBFCs= Non Banking Finance Companies, SCARDBs= State Co-operative Agriculture and Rural Development Banks.

The above table 4.18 describes agency wise disbursement of long term refinance during the period from 2002-03 to 2018-19. In the year 2002-03, the SCARDBs are played the dominant role in supplying long term loans compared to others institutions. But the contribution of SCARDBs declined from Rs. 2,852 Crore in the year 2002-03 to Rs. 1,936 Crore in 2018-19. On the other hand, gradually the Commercial Banks become the biggest channel for investment credit, followed by RRBs during the same period. The Commercial banks supplied long term refinance of Rs. 1,242 Crore in 2002-03, which increased to Rs. 54,082 Crore in 2018-19. In case of RRBs the contribution was Rs. 1,539 Crore in 2002-03, increased to Rs. 13,862 Crore in 2018-19. The StCBs also played a significant role in providing long term loans amonut of Rs. 1,784 Crore in 2002-03, increased to Rs. 6,464 Crore in 2018-19. It is also found from the above table that the NBFCs provided a significant amount of Rs. 12,764 Crore in the year 2018-19.

4.8: Role of Institutional credit for improvement of Rural Infrastructure in India

4.8.1: Performance Analysis of RIDF in India

The major objectives behind the introduction of Rural Infrastructure Development Fund (RIDF) are to improve farm productivity, providing market linkages and consequent rising of the standard of living of the rural population. Provide rural infrastructure through public investment is necessary not only to create basic infrastructure such as irrigation facilities, roads, and bridges, drinking water, rural health and education but also to give a push to private capital formation through commercialization of sectors such as agriculture, animal husbandry, fisheries, rural non- farm sectors etc. The journey of Rural Infrastructure Development Fund (RIDF) was started at 1995-96 in NABARD with a corpus of Rs. 2000 crore with an aim to funding rural infrastructure projects. The fund is supported by deposits from scheduled commercial banks with shortfalls in lending to priority sector and/or agriculture and/or weaker sections, RIDF covers 36 activities which can be classified under three broad categories i.e. i) Agriculture and related sectors, ii) Rural connectivity and iii) Social sector (NABARD Annual Report, 2015-16)⁴².

Table 4.19

Tranche-wise Allocation, sanction and Disbursements under RIDF (As on 31 March 2019)

(Amount in Rs. Crore)

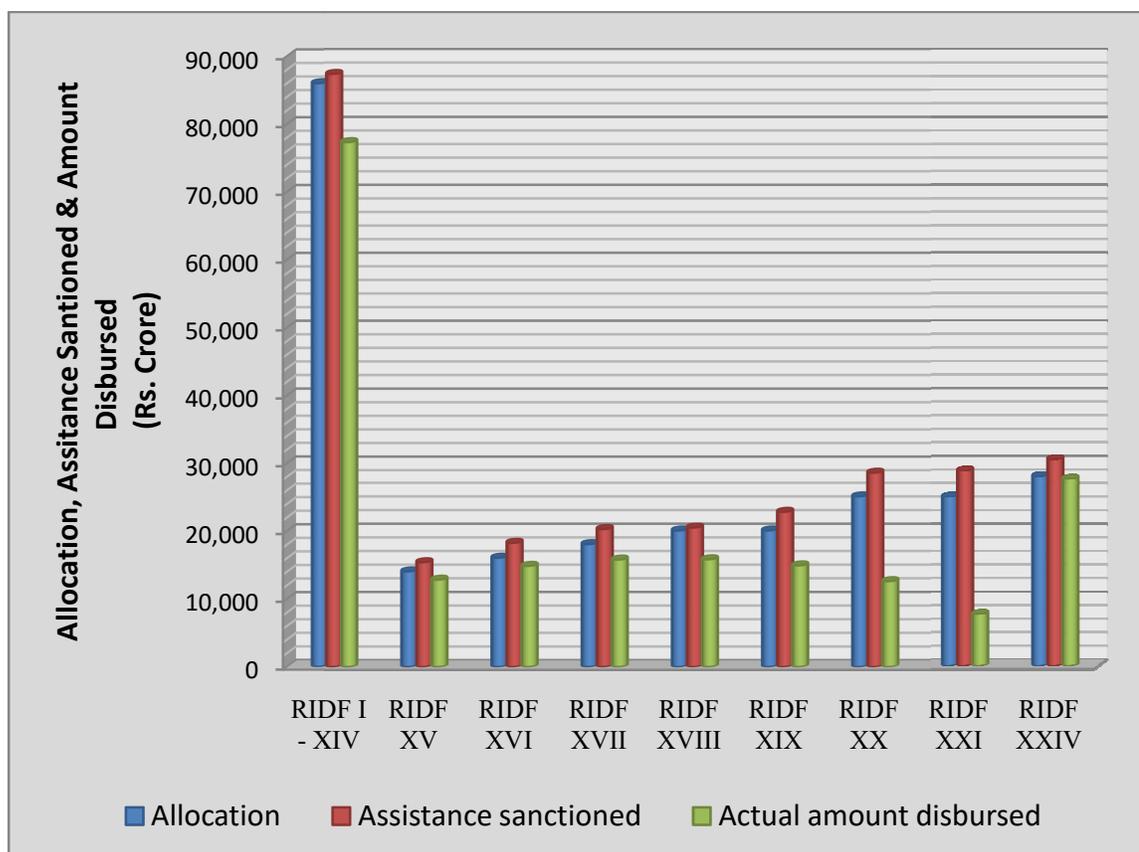
(Figures in the parenthesis represent year on year growth)

Tranche	Year	Allocation	Assistance sanctioned	Actual amount disbursed
RIDF I - XIV	1995-96 to 2008-09 (closed)	86,000	87,309	77,275
RIDF XV	2009-2010	14,000	15,342	12,790
RIDF XVI	2010-11	16,000 (14.29)	18,194 (18.59)	14,811(15.80)

RIDF XVII	2011-12	18,000 (12.50)	20,203 (11.04)	15,735 (6.24)
RIDF XVIII	2012-13	20,000 (11.11)	20,425 (1.10)	15,774(25.00)
RIDF XIX	2013-14	20,000 (0.00)	22,736 (11.31)	14,881(-5.66)
RIDF XX	2014-15	25,000 (25.00)	28,620 (25.88)	12,571 (-15.52)
RIDF XXI	2015-16	25,000 (0.00)	28,830 (0.37)	7,686 (-38.86)
RIDF XXIV	2018-19	28,000 (12.00)	30,497 (5.78)	27,623 (259.39)

Source: NABARD Annual Reports, 2015-16 (www.nabard.org)⁴³ and NABARD Annual Reports, 2018-19 (www.nabard.org)⁴⁴.

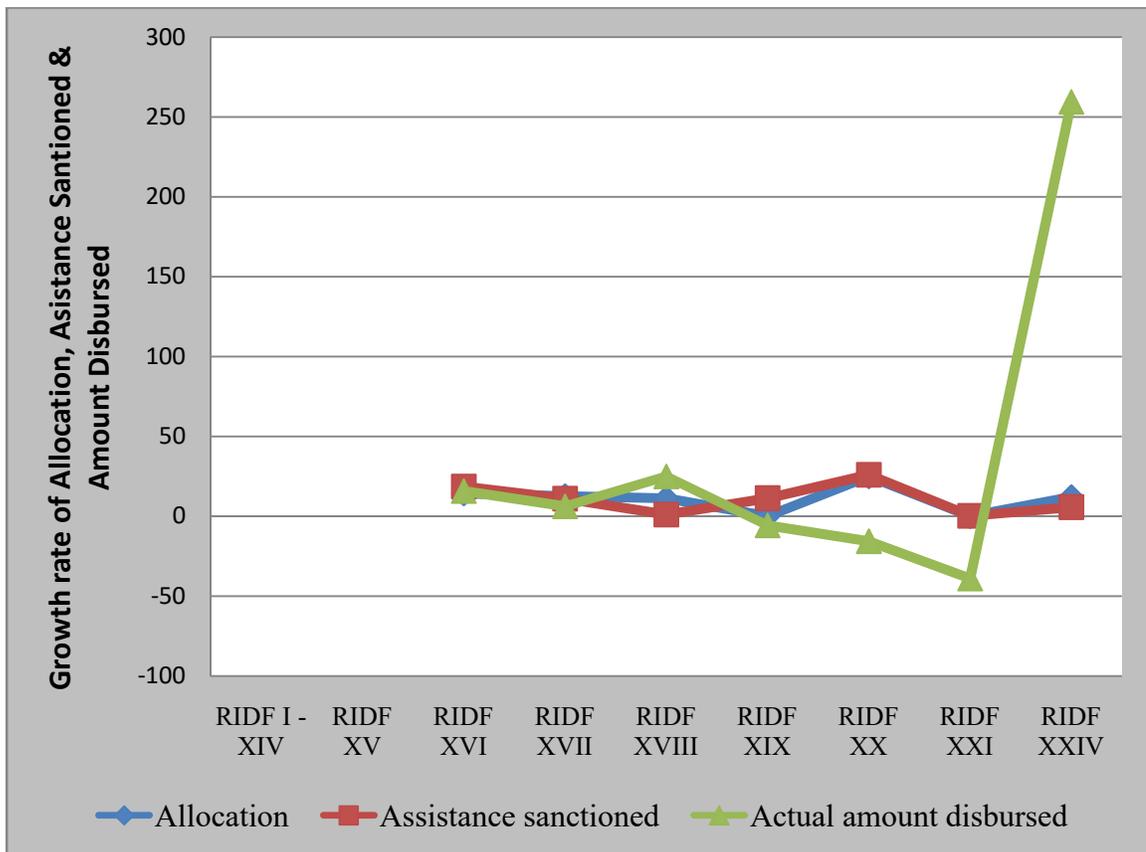
Figure 4.9: Performance of RIDF in Absolute Term



Source: Prepared by the researcher on the basis of NABARD Annual Report, 2015-16 & 2018-19.

The above table 4.19 depicts tranche-wise allocation, sanction and disbursements under RIDF as on 31st March, 2019. RIDF started with the initial corpus of Rs. 2000 crore under Tranche I, the cumulative resources allocated from RIDF I to RIDF XXI reached Rs. 2,24,000 crore against which sanctions and disbursements were Rs. 2,41,659 crore and Rs. 1,79,049 crore respectively. Under RIDF XXIV Rs. 28,000 crore has allocated and against which sanctions and disbursed are Rs. 30,497 crore and Rs. 27,623 crore respectively. The most significant achievement of the RIDF operations during 2015-16 is increase in the coverage of projects under agriculture and related sectors, which for the first time has touched 50 percent, which is in complete alignment with the basic policy and objectives of the RIDF (NABARD Annual report 2015-16)⁴⁵.

Figure 4.10: Performance of RIDF in terms of Growth Rate



Source: Same as Table

For performance analysis of RIDF, we have considered three parameters namely Allocation, Assistance Sanctioned and Actual amount Disbursed from RIDF I-XIV to

RIDF XXIV and used percentage growth rate over the previous year as the yardstick. If we consider all the parameters in their absolute figures, they show an increasing trend from RIDF XV to RIDF XXIV (except Amount Disbursed from RIDF XXVIII to RIDF XI). However, if we compute growth rate, the Allocation and Assistance Sanctioned show a mixing trend but regarding Actual amount disbursed experiences a drastic reduction in RIDF XXI but again it increases rapidly by 259.39 percent in RIDF XXIV. Thus, it is evident that the performance of RIDF XXIV is quite satisfactory.

Table 4.20
Sector-Wise Sanctions under RIDF during 2018-19 (as on 31 March 2019)

Sector	Projects	Share (%)	Sanctioned (Rs. Crore)	Share (%)
Agriculture and Related Sectors (A)	17,315	65	13,131	43
Rural Connectivity (B)	6,000	22	10,558	35
Social sector Projects (C)	3,431	13	6,808	22
Grand Total (A+B+C)	26,746	100	30,497	100

Source: NABARD Annual Report, 2018-19 (www.nabard.org)⁴⁶.

The above table 4.20 describes sector-wise sanctions under RIDF during 2018-19 as on 31st March 2019, there it is found that Rs. 13,131 crore i.e. 43 percent sanctioned for agriculture and related sectors, Rs 10,558 crore i.e. 35 percent for rural connectivity and Rs. 6,808 crore i.e. 22 percent for social sector projects. Finally RIDF XXIV disbursements under agriculture and irrigation related projects accounted for 45 percent, rural connectivity projects including roads and bridges 33 percent and social sector projects shared 22 percent during 2018-19 (NABARD Annual Report, 2018-19)⁴⁷.

4.8.2: Economic and Social impact of RIDF in India

Since inception RIDF has emerged as an important, dependable and timely source of funding for almost all the state governments for building up critical rural infrastructure in India. The RIDF investment have helped in creation of additional irrigation potential and construction of a network of rural road and bridges for better connectivity, increase in agricultural productivity and creation of recurring and non-recurring employment in rural areas.

RIDF XXIV projects have a palpable positive impact on the following issues (**NABARD Annual Report, 2018-19**)⁴⁸ -

- i) The value of agricultural production has increased of Rs. 57,427 crore.
- ii) Irrigation potential enlarged up to 330.44 lakh hectores.
- iii) Non-recurring employment generated about 1,38,598 lakh man days in Irrigation sector.
- iv) Regarding rural connectivity, 4.68 lakh Km roads has constructed.
- v) New Bridges has built about 11.45 lakh metre.
- vi) Non-recurring employment generated about 60,228 lakh man days in rural transportation.

4.9: Role of Institutional Credit for improvement of Warehousing Facilities

To enhance the overall agricultural growth, it is necessary to adopt the appropriate strategy of infrastructure development in agriculture. Decentralized infrastructural services and focusing on creation of post production infrastructure in warehousing, cold storages and marketing facilities should be provided in order to improve the farmers' income. Initiating appropriate infrastructure projects can lead to value addition in agriculture and reduce pre and post harvest losses.

The major objectives behind creation of the Warehouse Infrastructure Fund (WIF) are-

- i) Grant enough credit to public and private players for construction of modern scientific storage facilities.

- ii) Adequate credit facilities should be provided to the farmers against stored produce to reduce selling cost.
- iii) After Harvesting, it aims to get better prices for agricultural-produce.

In the Union Budget 2012-13, Government of India made a separate allocation of Rs. 5000 crore for financing warehousing infrastructure under RIDF XXIV, as a result of this a comprehensive expansion in various storage infrastructure for agricultural commodities, including warehouses, silos, agri-logistic parks, storage infrastructure in market yards & food parks, cold chain activities , pre-cooling units, cold storage, Controlled Atmosphere (CA) stores, reefer vans, bulk coolers, Individually Quick Frozen (IQF) units and chilling infrastructure. During 2012-13, NABARD had sanctioned 2,513 projects in 13 states involving a term loan of Rs. 2,141 crore (**NABARD Annual Report, 2012-13**)⁴⁹.

Table 4.21

Status of WIF Loan Sanctions and Disbursements as on 31st March 2019

(Amount in Rs. Crore)

Position as on 31st March 2019	WIF 2013-14 (Tranche I)	WIF 2014-15 (Tranche II)	Total
Corpus	4,481	5000	9,481
Sanctions	4,690	5,096	9,786
Utilization (%)	104.66	101.94	103.22
Disbursement as on 31 st March 2019	2,646	3,223	5,896
Disbursement- Achievements (%) (based on drawables as per phasing up to 31 st March 2019)	73.95	82.82	78.57

Source: NABARD Annual Report, 2018-19 (www.nabard.org)⁵⁰

The above table 4.21 depicts that the status of WIF Loan sanctions and disbursements as on 31st March 2019. It is found in the above table NABARD has invested with an estimated capital of Rs. 9,786 crore under WIF in order to overall development of post-

harvesting agricultural infrastructure in India. The cumulative disbursements of Rs. 5,896 under WIF were 78.57 percent of drawables as per phasing up to 31st March 2019. NABARD has financed 13.09 million metric tonnes (MMT) of scientific storage facilities till 31st March 2019, out of which 4.99 MMT of warehousing capacity has already created and also 58 percent of sanctioned projects were completed (**NABARD Annual Report, 2018-19**)⁵¹.

4.10: Role of Institutional Credit for promotion of Farmer Producers' Organizations

In order to support and finance producers organizations, NABARD has set up the “Producers Organizations Development Fund” with an initial corpus of Rs. 50 Crore during the year 2011 (**NABARD Annual Report, 2011-12**)⁵². Later on, Government of India in Union Budget 2014-15 created a Producers' Organization Development and Upliftment Corpus Fund (PRODUCE Fund) of Rs. 200 Crore in NABARD to be utilized for the formation of 2000 Farmer Producers' Organizations (FPOs) in the next two years to supplement NABARD's producers' Organization Development Fund (PODF) (**NABARD Annual Report, 2015-16**)⁵³. The Farmer Producers' Organizations have come out as a useful mechanism to transform small holding based agriculture into a viable agri-business enterprise and to generate the net income of farmers, particularly the small and marginal. (**NABARD Annual Report, 2018-19**)⁵⁴ declared that out of 2,154 FPOs in 29 states, around 70 % FPOs are registered as Farmers Producer Companies (FPCs) and the remaining as Cooperatives. These FPOs are engaged in bulk purchase and supply of agricultural inputs to the members, accumulation and marketing of produce, primary value addition and agricultural food processing, procurement of food grains under government schemes and activities associated to agriculture. The major achievements under this fund are-

- i) Small and marginal farmers comprise 82% of the total membership while 32% members are women farmers.
- ii) Since inception 349 FPOs are credit-linked, 1298 FPOs are market-linked and 724 FPOs have gained licenses for direct input dealership.

- iii) Data in respect of 2081 FPOs and over 7.5 lakh farmer members have been digitized for effective monitoring and generation of Management Information System (MIS).

4.11: Role of Institutional Credit for generating Self-Employment in India

“If we can come up with a system which allows everybody access to credit while ensuring excellent repayment- I can give you a guarantee that poverty will not last long- Prof. Dr. Muhammand Yunus”.

On basis of above principle, Prof. Dr. Muhammand Yunus created some women’s groups in Bangladesh in year 1976, those who started to build up saving for themselves. Later on, this concept emerged with a financial institution called Bangladesh Grameen Bank. In the year 1998, this bank expanded all over the Bangladesh with 1138 branches in states and 39572 branches in villages. At that time 2367503 members were associated with this bank, out of which only 124571 men were there and total saving of the Bangladesh Grameen Bank was US dollar of 202.73 million (**Hanumantharaya, T & H S Rakesh Nadig, 2018**)⁵⁵. After the success of Bangladesh Grameen Bank the concept of micro credit appeared in India to remove the poverty through generating self-employment opportunities.

According to the definition of Self Help Group (SHG), it is a group consisting with 10-20 individual members, who are having same economic and social status come together by free association for a frequent collective purpose from the same village, community and even marketing neighborhood. Their prime operation of SHG is based the principle of self-help, solidarity and mutual interest and it can be registered or unregistered. In India, the concept of SHGs was first emerged by Mysore Resettlement and Development Agency (MYRADA) in 1985. NABARD associated itself with SHGs movement and provided fund of Rs. 1 million in the year 1987, after responding to a proposal from MYRADA which was submitted in 1986. After Getting the response from this initiative, the RBI has decided to adopt the SHG strategy as an alternative credit model (**Fernandez P Aloysius, 2007**)⁵⁶. As a result of this, a pilot scheme was launched by NABARD in the year 1992 known as Self-Help Group- Bank Linkage Programme (SHG-BLP), which act as a financial mediator so as to develop the standard of living of the rural poor (**Agarwal**

S and Singh O P, 2014)⁵⁷. Initially the SHG-Bank Linkage Programme (SHG-BLP) started with 225 credit linked groups and a loan amount of Rs. 29 Lakh in 1992, but within 3 years 4750 SHG were credit linked with different banks with a loan of Rs. 6.06 crore. The remarkable success of the pilot project guided to Reserve bank of India (RBI) mainstreaming the SHG-BLP as normal economic activity and finally it become priority activity in 1996 (**Status of Micro Finance in India, NABARD 2018-19**)⁵⁸.

The important objectives of SHGs to achieve socio-economic empowerment of the rural poor are discussed as follows (**Devi. Uma R, 2013**)⁵⁹ -

I. Economic Empowerment-

- i) To inject the habit of saving among the rural poor.
- ii) To utilize the credit for productive purpose and to repay the loan on a regular basis.
- iii) To increase the income level of the family.
- iv) The group members can meet up the right amount of credit for their small and emergency purposes.

II. Social Empowerment-

- i) To uplift the social status and self confidence of group members specially women through achieving decision-making power within their household.
- ii) To create equal responsibilities among the group members of SHGs.
- iii) To inject the leadership qualities among the women group members and encourage them to take part in local government.

The methodology of SHGs is a unique approach in development of economics in the course of need-based credit delivery mechanism and also utilizes the resources for catering to their consumption and occupational requirement. In words of Pandit Jawaharalal Nehru, the first Prime Minister of India, "*Freedom depends on economic condition even more than political. If women are not economically free and self-earning, she has to depend on her husband or son or father or someone-else and dependents are never free.*"

The SHGs are categorized into five classes are as follows (**Devi Uma R, 2013**)⁶⁰ -

Model I- SHGs formed and financed by banks-

Under this model, banks form SHGs directly and also act as SHPIs to look after the groups, opening their savings accounts and provide the institutional credit.

Model II- SHGs formed by NGOs and formal agencies but directly financed by banks-

Under this model, NGOs and other formal agencies are act as facilitators of SHG and also provide them training and credit management over a period. During this period Banks provide credit direct to them through SHG- Bank linkages. In India around 70 percent of the SHGs are linked with help of this model.

Model III- SHGs financed by banks using NGOs as financial intermediaries-

In this model, NGOs on one side provide all the facilities like formation of SHGs, training and credit management to the SHGs, on the other side act as financial intermediaries. Thereafter, NGOs approach to banks for bulk loan assistance for on lending to these SHGs.

Model IV- NGO guided by but self-supported SHGs-

This type of SHGs are basically formed and monitored by the group members. They are not receiving any kind of support or assistance from bank and NGOs. After observing the other SHG models in the neighborhood areas, these groups are supporting themselves.

Model-V- Completely self-supported SHGs-

These kinds of SHGs are rarely found because they are self-dependent. They are also not getting any financial support from banks, their own savings use for their internal lending as well as starting an enterprise. In some cases like initiation, rules and regulations and maintenance of accounts they are guided by the NGOs.

Table 4.22

Progress of SHG-BLP as on 31st March 2019

Particulars	Number of SHGs (lakh)	Amount (Rs. In Crore)

Savings with banks	100.14	23,325
Loan disbursed	26.98	58,318
Loan outstanding	50.77	87,098
NPA level (%)	5.19	
No. of Members (lakh)	1223.67	
Average loan disbursed per SHG (Rs. In lakh)	2.16	

Source: NABARD Annual Report, 2018-19 (www.nabard.org)⁶¹.

The above table 4.22 depicts the progress of SHGs- Bank Linkage Programme (SHG-BLP) as on 31st March 2019. The SHG-Bank Linkage Programme is a successful instrument for promotion of livelihood and poverty alleviation and the most important parameters are the number of SHGs with savings bank accounts, amount of credit disbursed during the year and loan outstanding. The SHG-BLP become one of the largest microfinance programme in the world by reaching a milestone with a total membership of about 1.14 crore groups covering 12.23 crore households across India. From the above table it is found that the programme has made an unforgettable mark on Indian financial landscape with total deposit of Rs. 23,325 crore and cumulative loan disbursement of Rs. 58,318 crore and a loan outstanding of Rs.87,098 crore as on 31st March 2019. The average loan disbursed per SHG has reached at Rs. 2.16 lakh. It is also observed that the Non Performing Asset (NPA) has touched at 5.19 % is quite appreciable.

Table 4.23

Agency-wise progress of Savings of SHGs with Banks as on 31st March, 2019

(Amount in Rs. Lakh)

(Figures in parentheses indicate the Percent)

Name of the Agency	Total Savings of SHGs with Banks		
	No. of SHGs	Savings Amount	No. of Members
Commercial Banks	5476914 (54.69)	1324023.23 (56.77)	69225789 (56.57)

Regional Rural Banks	3078473 (30.74)	769201.27 (32.98)	35768005 (29.22)
Cooperative Banks	1458856 (14.57)	239223.65 (10.25)	17374151 (14.19)
Total	10014243 (100.00)	2332448.15 (100.00)	122367945 (100.00)

Source: Status of Micro Finance in India, NABARD 2018-19 (www.nabard.org)⁶².

The above table 4.23 shows the progress of savings of SHGs with different banks as on 31st March 2019. In order to give importance of financial inclusion in overall economic development of the people, the banking sector has been playing an effective role through the expansion of savings and credit linkage of SHGs. The Commercial Banks by nature of their enormous network took the lead in SHG-Bank Linkage Programme. More than half (54.76 lakh) of the SHGs (i.e. 54.69 %) in the country maintain their savings account with a total deposit of Rs. 1324023.23 lakh (i.e. 56.77 %) in the Commercial Banks. A total number of 6.92 crore (56.57 %) members are associated with commercial banks through SHGs. On the other hand, 30.78 lakh (30.74 %) SHGs maintain their saving account with a total deposit of Rs. 7769201.27 lakh (32.98 %) in Regional Rural Banks and 3.57 crore (29.22%) members of SHGs are connected with RRBs. The cooperative banks continued with their subdued performance under SHGBLP with 14.58 lakh (14.57%) SHGs through a total deposit of Rs. 239223.65 lakh (10.25 %).

Table 4.24

Agency-wise Loan Disburse, Loan Outstanding & NPAs of SHGs with Banks as on 31st March 2019

(Amount in Rs. Lakh)

(Figures in parentheses indicate the Percent)

Name of the Agency	Loans disbursed to SHGs by Banks during the year 2018-19	Total Outstanding Bank Loans against SHGs	Non Performing Assets of Banks against SHG Loans
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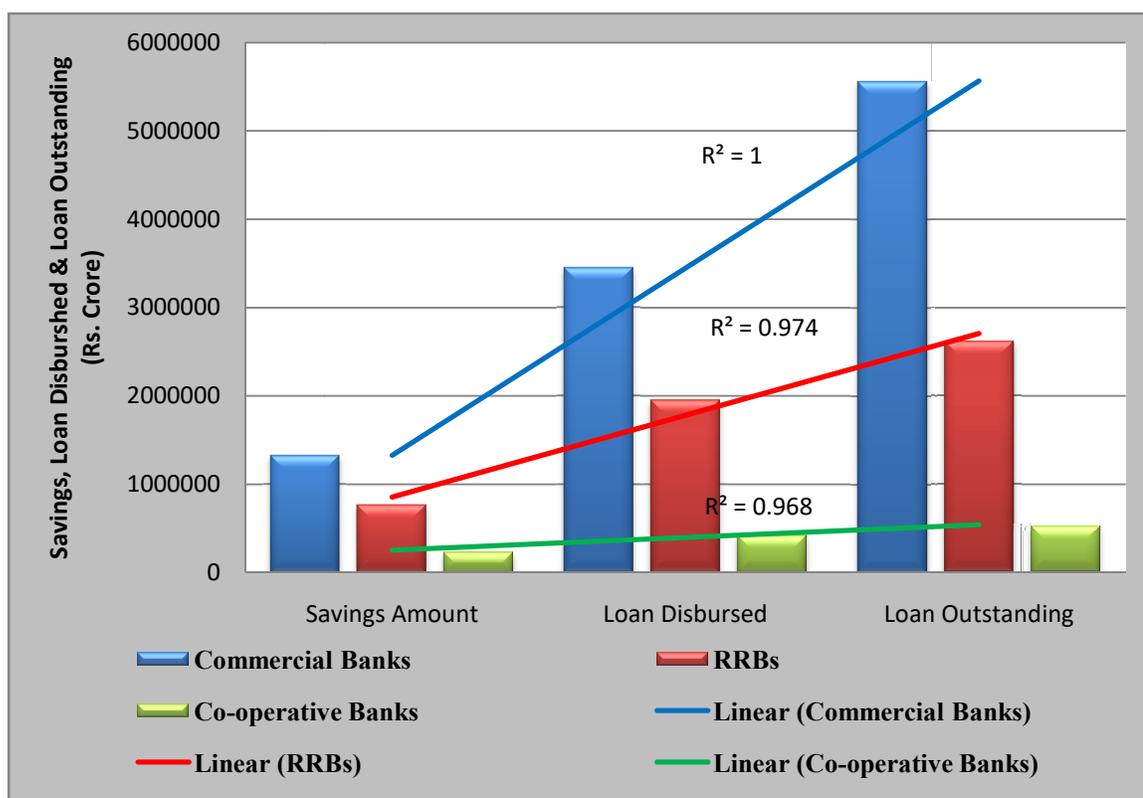
					Outstanding	
	No. of SHGs	Loans disbursed	No. of SHGs	Loan Outstanding	Amount of NPAs	Percentage (%) of NPAs to Total loans Outstanding
Commercial Banks	1512907 (56.07)	3449246 .74 (59.15)	2901209 (57.14)	55641 11.05 (63.88)	289739.17 (64.04)	5.21
Regional Rural Banks	940818 (34.87)	1955264 .43 (33.53)	1695534 (33.39)	26195 98.85 (30.08)	127482.95 (28.18)	4.87
Cooperative Banks	244675 (9.07)	427251. 71 (7.32)	480589 (9.47)	52610 5.53 (6.04)	35178.93 (7.78)	6.69
Total	2698400 (100.00)	5831762 .88 (100.00)	5077332 (100.00)	87098 15.43 (100.00)	452401.05 (100.00)	5.19

Source: Status of Micro Finance in India, NABARD 2018-19 (www.nabard.org)⁶³.

The above table 4.24 depicts agency wise loan disburse, loan outstanding and NPAs of SHGs with banks as on 31st March 2019. The Commercial Banks have a healthy share in the credit flow to 15.12 lakh (56.07 %) SHGs with a total loan disbursement of Rs. 3449246.74 lakh (59.15 %) during the year 2018-19. On the other hand, RRBs have registered 94.08 lakh (34.87 %) SHGs with a total credit flow of Rs. 1955264.43 lakh (33.53 %) during the same year. But the Cooperative Banks continued with the lead role

by providing the credit of Rs. 427251.71 lakh (7.32 %) to 2.44 lakh (9.07 %) SHGs during 2018-19. The Commercial Banks have 63.88 percent (i.e. 556411.05 lakh) of total bank loan outstanding by 29.01 lakh (57.14 %) SHGs as on 31st march 2019. But the RRBs and Cooperative Banks have 30.08 % and 6.04 % share of total bank loan outstanding respectively.

Figure 4.11: Performance of Different Agencies of Savings, Loan Disbursed & Loan Outstanding of SHG-Bank Linkage Programme



Source: Same as above Table

For performance analysis of Commercial Banks, Regional Rural banks (RRBs) and Co-operative Banks for SHG-Bank Linkage Programme, we have considered four parameters namely Savings, Loan Disbursed, Loan Outstanding and Non-Performing Assets (NPAs). The trend line slopes of all the institutions upward and the high value of R^2 depict that all the institutions are performing well in SHG-Bank Linkage Programme. Among these institutions, the value of R^2 (1.00) is highest for the Commercial Banks suggests that it is performing comparatively better followed by RRBs and Co-operative Banks. Regarding

Non Performing Assets of Banks against SHGs loan outstanding the RRBs could reduced it upto 4.87 %, which is below the average of 5.19 %. But the Commercial Banks and Cooperative Banks have their NPAs 5.21 % and 6.69 % respectively.

One of the goals of the SHG-Bank Linkage Programme (SHG-BLP) is to create income opportunities and remove poverty through livelihood. In order to promote the sustainable livelihood in both farm and off-farm activities among SHG members and to create maximum impact of skill upgradation with hand holding and credit linkages the Livelihood and Enterprise Development Programme (LEDP) was launched by NABARD in December, 2015 (**NABARD Annual Report, 2015-16**)⁶⁴. The important aims of LEDP are to provide intensive training for skill building, strengthen the backward-forward linkages, handholding and lead support for credit linkage and also offers end-to-end solutions to the SHG members. Cumulatively around 61000 SHG members have been supported through 532 LEDPs up to 31st March, 2019 (**NABARD Annual Report, 2018-19**)⁶⁵.

4.12: Conclusion

The agricultural and allied sectors occupy an important place in Indian economy, so the government of India has given enough emphasis to develop the agricultural and allied sectors since independence. In this chapter, we have studied the overview of institutional credit facilities in agricultural sector in India during the study period 2001-02 to 2018-19. The performance of different credit institutions (i.e. commercial banks, RRBs, co-operative banks & NABARD etc.) are quite satisfactory in terms of supply of Ground Level Credit (GLC) to agricultural and allied sectors in India during the study period except Co-operative Banks.

In order to assess the progress of agricultural credit in India, we have selected some aspects of agricultural sectors. It is found that the growth performance of agricultural and allied sector was not satisfactory as Average Annual Growth Rate (AAGR) of agricultural and allied sectors in GVA at factor cost was quite low. It is also found that the production and productivity of major agricultural crops were not satisfactory during

the study period. In addition to this, the performance of share of private investment compared to public investment in GCF in agricultural and allied sector was satisfactory.

The performance of NABARD in terms of refinance facilities to different RFIs was quite satisfactory. Regarding the agricultural infrastructure, the different credit institutions are providing enough credit facilities to the agriculture and allied sectors in India during the study period. In order to generate self employment, different credit institutions are injecting an adequate amount of credit facilities through the SHG-Bank Linkage Programme.

With an aim to develop the agricultural and allied sectors, our present Hon'ble Prime Minister has set a target to Double the Farmers' Income by 2020. In order to achieve this target a seven-point strategy has been advocated which are as follows (**State of Indian Agriculture- 2017, 2018**)⁶⁶ –

- i) With the aim of “Per Drop More Crop”, special focus should be given on irrigation with sufficient budget.
- ii) Provision of quality seeds and nutrients based on soil health of each field.
- iii) To prevent post-harvest crop losses more emphasis should be given on large investments in warehousing and cold chains.
- iv) Promotion of value addition through food processing.
- v) In order to remove distortions, the proposal has been given to create a national Farm market and setting up of e-platform across 585 stations.
- vi) The new Crop Insurance Scheme should be introduced with an aim to mitigate risks at affordable cost.
- vii) More promotion should be given on ancillary activities like dairy, poultry, bee-keeping and fisheries.

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