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Regional disparity in institutional credit to agriculture sector in India: trends and performance

Vinod Kumar* and Saad Bin Afroz

National Bank for Agriculture and Rural Development, Mumbai, Maharashtra 400051, India

*Corresponding author: vinod.vidyarthi4@gmail.com

Abstract Credit is as an indirect input in agricultural production. By easing liquidity constraint, it enables farmers adopt modern technology and invest in farm infrastructure. The Government of India initiated several policy measures to improve outreach of the financial institutions to farming and rural communities. As a result, the share of institutional credit, increased from 7% in 1951 to 67% in 2018. The credit to agricultural sector increased from Rs.46268 crore in 1999-2000 to Rs.1863363 crore in 2021-22 at an annual growth of 19.5%. There was an impressive increase in the credit intensity from Rs.26100 per hectare in 2011-12 to Rs.93210 per hectare in 2021-22. However, there exist significant regional disparities in it — Rs.21756 in north eastern region to Rs.259554 in southern region. Such stark disparities in agricultural credit warrant attention of the policymakers to re-orient the agricultural credit policy to the needs of the credit-starved regions.

Keywords Agriculture credit, regional disparities, inclusiveness, convergence

JEL codes Q1, Q14, Q18

Agriculture plays a crucial role in Indian economy. Although the share of agriculture in the national income has come down substantially since the beginning of planning era, from 55.4% in 1950-51 to 18.64% in 2021-22, it still remains important for the livelihood of over 45% of the population, which is directly engaged in production agriculture. A majority of the farm households are smallholders, and they lack access to finances for meeting the revenue and capital requirements of agriculture. The Government of India initiated several measures to improve their access to institutional sources of credit. The policy emphasis has been on the progressive institutionalization of credit to provide timely and adequate credit support to all the farmers, especially on small and marginal farmers and weaker sections in order to enable them to adopt modern technologies and improved agricultural practices for increasing agricultural production and productivity. The credit flow to agriculture which was just Rs.4352 crore in 1982-83 increased to Rs.1863363 crore in 2021-22.

However, despite significant increase in credit flow, disparity in credit distribution remain, across regions and farm classes. Data suggest that southern region receives almost half of the total agriculture credit disbursed. Likewise, the outreach of institutional financial agencies has remained poor to small and marginal farmers. Against this backdrop, this paper analyses growth in agricultural credit, and regional disparities therein, and suggests policy measures to reduce disparities in credit supply.

Data

The study is based on secondary data compiled from various published sources. The data on gross cropped area (GCA), agricultural gross value added (AgGVA) and gross value added (GVA) were compiled from the Handbook of Statistics on Indian States (2022), Reserve Bank of India (RBI). The data on agricultural credit were collected from the Agriculture Statistics at a Glance, published by the Ministry of Agriculture and

Farmers Welfare, Government of India (GoI), Annual Reports of the NABARD, and Economic Surveys published by the Ministry of Finance, Government of India. Data on institutional and non-institutional credit were compiled from the All-India Debt and Investment Surveys, brought out once in 10 years by the Ministry of Statistics and Programme Implementation, Government of India. The data provides useful information on different dimensions of rural finance.

Results and discussion

Evolution of institutional credit: regional dimensions

One of the main objectives of the agricultural credit policy has been to reduce the role of non-institutional credit sources, mainly moneylenders in the rural credit market. Several initiatives have been taken in this direction. Some major milestones in the rural credit are: the acceptance of Rural Credit Survey Committee Report (1954), the nationalisation of major Commercial Banks (in 1969 and 1980), the establishment of Regional Rural Banks (RRBs) in 1975 and the National Bank for Agriculture and Rural Development (NABARD) in 1982. Simultaneously, several measures like establishment of the Lead Bank Scheme, direct lending for the priority sector, banking sector's linkage with the Government-sponsored programmes targeted at the poor, Differential Rate of Interest Scheme, the Service Area Approach, the SHG-Bank Linkage Programme were also implemented to strengthen the credit flow (RBI 2004). In recent years, initiatives like Kisan Credit Card (KCC) Scheme, Special Agricultural Credit Plans, Rural Infrastructure Development Fund (RIDF) and Agriculture Infrastructure Fund, etc. have been introduced to enhance the flow of credit to the rural sector.

State-wise and region-wise shares of the institutional and non-institutional sources in the total rural credit for the last four rounds of the All India Debt and Investment Survey (AIDIS) is given in Table 1. All states witnessed a significant increase in the institutional credit after the nationalization of Commercial Banks. However, the performance and trends are not uniform across states. In states like Bihar, Chhattisgarh, Tamil Nadu and most states in the north eastern region, the share of institutional credit in the total rural credit fell dramatically. For instance, in Bihar it fell from 51.23% in 1991-92 to 23.51% in 2002-03.

A similar picture emerges for all the north eastern region, where the institutional credit penetration decreased from 71.27% (1991-92) to 59.55% (2002-03), but it improved to 81.41% in 2018-19. At all India level, the share of institutional credit continuously increased from 55.65% in 1991-91 to 67.00% in 2018-19. Kumar et al. (2007) have opined that during the banking reforms period, excessive emphasis on profitability eroded the primary mandate of some formal financial institutions such as cooperatives and RRBs, facilitating the comeback of the exploitative non-institutional credit agencies. Another interesting point to note is that southern region despite its good institutional banking infrastructure continues to have a large share of borrowings from the non-institutional sources.

In order to bring the excluded agricultural households into the fold of institutional credit in a structured and sustainable manner, there is a need to build an enabling ecosystem with respect to policies, institutional innovations and digital technologies. The enabling ecosystem would include digitisation of land records, reforming of land-leasing framework, building consensus among states with regard to agriculture-related policy reforms, and initiating innovative digital solutions to bridge the information gap between the banks and farmers (RBI 2019).

Institutional credit: agency-wise ground level credit (GLC) flow to agriculture

The recent past witnessed healthy growth in the flow of agriculture credit, particularly since the introduction of the policy of 'doubling of agriculture credit' by the Government of India in 2004-05. Agriculture credit increased at an overwhelming rate of 35% per annum during 2004-05 to 2006-07. The growth in agricultural credit disbursed has been significant over the years. During 1999-2000 to 2021-22, the total agricultural credit disbursed increased from Rs.46268 crore to Rs.1863363 crore. Overall, the ground level credit (GLC) disbursed grew at a rate of 18.84% per annum, the highest growth of 21.59% was in the case of RRBs, followed by the Commercial Banks (20.63%) and Cooperative Banks (12.52%).

A prominent feature of the trends in GLC is the change in the share of different agencies. Disaggregated data indicate that the share of Cooperative Banks, which was around 40% in the GLC in 1999-2000 reduced to

Table 1 Share of institutional and non-institutional borrowings in different states of India, 1991-92 to 2018-19

(%)

State/Region	Institutional sources				Non-institutional sources			
	1991-92	2002-03	2012-13	2018-19	1991-92	2002-03	2012-13	2018-19
Haryana	52.67	61.78	63.09	73.60	47.33	38.22	36.91	26.40
Himachal Pradesh	60.30	57.16	83.72	95.20	39.70	42.84	16.28	4.80
Jammu & Kashmir	42.80	82.74	63.46	66.80	57.20	17.26	36.54	33.20
Punjab	59.26	53.82	71.70	73.90	40.74	46.18	28.30	26.10
Rajasthan	30.29	38.69	43.50	53.00	69.71	61.31	56.50	47.00
Northern region	49.06	58.84	65.09	72.50	50.94	41.16	34.91	27.50
Arunachal Pradesh	56.47	78.40	74.80	72.30	43.53	21.60	25.20	27.70
Assam	45.04	46.43	72.23	87.50	54.96	53.57	27.77	12.50
Manipur	53.19	7.76	49.65	46.90	46.81	92.24	50.35	53.10
Meghalaya	91.88	38.11	96.30	90.70	8.12	61.89	3.70	9.30
Mizoram	68.22	84.54	85.56	94.30	31.78	15.46	14.44	5.70
Nagaland	72.76	71.29	20.82	80.20	27.24	28.71	79.18	19.80
Sikkim	98.58	75.81	79.00	89.70	1.42	24.19	21.00	10.30
Tripura	84.02	74.04	69.30	89.70	15.98	25.96	30.70	10.30
North Eastern region	71.27	59.55	68.46	81.41	28.73	40.45	31.54	18.59
Bihar	51.23	23.51	28.87	49.10	48.77	76.49	71.13	50.90
Jharkhand	94.40	90.93	28.03	58.60	5.60	9.07	71.97	41.40
Odisha	70.15	69.27	37.94	61.70	29.85	30.73	62.06	38.30
West Bengal	55.52	48.63	58.10	72.60	44.48	51.37	41.90	27.40
Eastern region	67.83	58.09	38.23	60.50	32.18	41.92	61.77	39.50
Chhattisgarh	74.39	57.32	57.21	79.60	25.61	42.68	42.79	20.40
Madhya Pradesh	57.76	62.26	60.56	67.70	42.24	37.74	39.44	32.30
Uttaranchal	28.97	53.94	83.42	91.10	71.03	46.06	16.58	8.90
Uttar Pradesh	54.84	53.61	61.56	66.90	45.16	46.39	38.44	33.10
Central region	53.99	56.78	65.69	76.33	46.01	43.22	34.31	23.68
Gujarat	74.70	75.74	79.20	81.60	25.30	24.26	20.80	18.40
Maharashtra	77.06	78.12	76.50	88.20	22.94	21.88	23.50	11.80
Western region	75.88	76.93	77.85	84.90	24.12	23.07	22.15	15.10
Andhra Pradesh	25.56	37.50	43.74	35.50	74.44	62.50	56.26	64.50
Karnataka	62.78	62.51	63.00	68.40	37.22	37.49	37.00	31.60
Kerala	81.79	81.63	89.80	86.90	18.21	18.37	10.20	13.10
Tamil Nadu	61.92	46.63	63.96	67.60	38.08	53.37	36.04	32.40
Telangana	0.00	0.00	34.53	41.70	0.00	0.00	0.00	58.30
Southern region	58.01	57.07	59.01	60.02	33.59	42.93	34.87	39.98
All India	55.65	57.09	59.80	67.00	44.35	42.91	40.20	33.00

Source Data of Debt and Investment Survey NSSO, 48th, 59th, 70th and NSO 77th Rounds

13.05% in 2021-22. There was a tremendous improvement in the share of Commercial Banks, from 53.46% in 1999-2000, to 76% in 2021-22. RRBs improved their share from 6.86% in 1999-2000 to 13.03% in 2015-16. However, it has come down

slightly to 10.96% in 2021-22. The higher CV of Commercial Banks (90.08%) and RRBs (94.15%) signify greater variability in the credit disbursed by these agencies in comparison to Cooperative Banks (68.43%) (Table 2).

Table 2 Agency-wise credit flow to agriculture sector in India

(Rs.crore)

Year	Cooperative Banks	Regional Rural Bank	Commercial Banks	Other Agencies	Total
1999-00	18260 (39.47)	3172 (6.86)	24733 (53.46)	103	46268
2000-01	20718 (29.22)	4220 (7.99)	27807 (52.64)	82	52827
2001-02	23524 (37.91)	4854 (7.82)	33587 (54.13)	80	62045
2002-03	23636 (33.98)	6070 (8.73)	39774 (57.18)	80	69560
2003-04	26875 (30.90)	7581 (8.72)	52441 (60.29)	84	86981
2004-05	31231 (24.92)	12404 (9.90)	81481 (65.02)	193	125309
2005-06	39403 (21.83)	15223 (8.43)	125477 (69.52)	382	180485
2006-07	42480 (18.52)	20435 (8.91)	166485 (72.57)	-	229400
2007-08	48258 (18.95)	25312 (9.94)	181088 (71.11)	-	254658
2008-09	45966 (15.23)	26765 (8.87)	228951 (75.83)	226	301908
2009-10	63497 (16.51)	35217 (9.16)	285800 (74.33)	-	384514
2010-11	78121 (16.68)	44293 (9.46)	345877 (73.86)	-	468291
2011-12	87963 (17.21)	54450 (10.65)	368616 (72.13)	-	511029
2012-13	111203 (18.31)	63681 (10.48)	432491 (71.21)	-	607375
2013-14	119964 (16.43)	82653 (11.32)	527506 (72.25)	-	730123
2014-15	138469 (16.38)	102483 (12.12)	604376 (71.50)	-	845328
2015-16	153295 (16.74)	119261 (13.03)	642954 (70.23)	-	915510
2016-17	142758 (13.40)	123216 (11.56)	799781 (75.04)		1065755
2017-18	150389 (12.87)	140959 (12.06)	877155 (75.07)		1168503
2018-19	152340 (12.12)	149667 (11.91)	954823 (75.97)		1256830
2019-20	157367 (11.30)	165326 (11.87)	1070036 (76.83)		1392729
2020-21	190682 (12.10)	190012 (12.06)	1194704 (75.84)		1575398
2021-22	243220 (13.05)	204180 (10.96)	1415964 (75.99)		1833363
CAGR (%)	12.52	21.59	20.63		18.84
CV (%)	68.43	94.19	90.08		87.07

Source NABARD data bank, and Ensure Portal, NABARD

Note Figures given in parentheses indicate the percentage

Overall growth and outreach of agricultural credit

In 2021-22, the institutional credit to the agriculture was to the tune of Rs.18.63 lakh crore against the target of Rs.16.50 lakh crore. This includes Rs.10.99 lakh crore short-term credit and Rs.7.64 lakh crore long-term credit (Table 3). It may also be observed from the table that the share of Cooperative Banks, RRBs and Commercial Banks in crop loans was 57.36%, 5.85% and 36.80%, respectively in 1995-96. However, the share of Commercial Banks has increased to 64.00% in 2021-22 and that for RRBs had improved significantly (15.17%) in 2021-22, whereas the share of Cooperative Banks declined significantly to 20.83%. The share of short-term credit decreased from 65.93% in 1995-96 to 59.02% in 2021-22. During the same period, the highest growth was witnessed in the case of RRBs (23.83%), followed by Commercial Banks (22.47%) and Cooperative Banks (13.75%).

It is well recognized that long-term credit has been the major driver of private capital formation in agriculture (PSCFA). With the concerted efforts of the Rural Financial Institutions, operationalization of Small Finance Banks, Non-banking Financial Companies-Micro Finance Institutions (NBFC-MFIs), refinance support from NABARD under Long Term Rural Credit Fund (LTRCF) to RRBs and Rural Cooperative Banks, and Area Development Scheme of NABARD, the investment credit/long term credit to agriculture has been exceeding the target for the past four consecutive years. The share of long-term credit in the total institutional credit to agriculture has been rising steadily, and exceeded 40% mark in 2018-19. The share of long-term credit increased from 22.48% in 2011-12 to 40.98% in 2021-22.

During 1995-96 to 2021-22, the long-term credit, which aids capital formation in agriculture, increased at a rate similar to that in the total agricultural credit (over 19%) (Table 3). This can also be seen in the increase in the share of private sector in the Gross Capital Formation in agriculture to 85.69% in 2020-21 from 56% in 1980-81.

Disparities in credit dispensation

Regional disparities

Despite the rapid growth in the credit disbursal, it is pertinent to note that this growth has not been uniform

across regions. In fact, amongst striking features of the agricultural credit schemes in India, is the persistence of regional disparities in agricultural credit by the rural financial institutions (Kumar 2021). In 2021-22, southern region had the largest share (47.13%), followed by the northern region (16.27%), central region (12.84%), western region (12.18%), eastern region (10.83%) and north eastern region (0.76%).

Incidentally, the share of southern region in the total agriculture credit has been increasing since 2016-17, whereas the share of other regions, except eastern and north eastern regions, has been declining since 2013-14 (Table 4). This indicates a persistent and deeper regional imbalance of the credit flow across regions.

Higher share of southern region is often attributed to its higher credit absorption capacity on account of better infrastructure facilities and outreach. In terms of credit disbursement per hectare also there exist large disparities across regions, with southern region having the highest amount of Rs.259554, much more than the national average of Rs.93210 (Table 5). Similarly, region-wise amount of loan disbursed per account is the highest in southern region and the lowest in north eastern region.

Region-wise and agency-wise average share in agriculture credit

Disparities also exist in the disbursement across agencies in the regions, with the Commercial Banks sharing 47.67% of the total credit in the southern region, followed by the northern region (18.83%) during 2017-18 to 2021-22. Region-wise disparities in credit disbursement are greater for crop loans by Commercial Banks where 50.55% of the total short-term loans disbursed are in the southern region. The disbursement patterns by RRBs are also similarly skewed in favor of southern region. However, it is pertinent to note that in terms of regional credit disbursement spread, Cooperative Banks are found most equitable, especially when it comes to the crop loan disbursement (Table 6).

Regional disparities: credit vis-a-vis real indicators in agriculture

Empirical evidence indicates that there is a disconnect between the real sector parameters and distribution of agriculture credit across regions. For example, the

Table 3 Flow of institutional credit to agriculture in India

Year	Short-term (ST) Credit				Medium-term/Long-term (MT/LT) Credit				Total (ST+MT/LT) Credit				(Rs.crore)
	Coop. banks		Comm. Banks		Coop. banks		Comm. Banks		Coop. banks		Comm. Banks		
	RRBs		RRBs		RRBs		RRBs		RRBs		RRBs		
1995-96	8331	849	5345	14525	2148	532	4827	7507	10479	1381	10172	22032	
1996-97	9328	1121	6549	16998	2616	563	6234	9413	11944	1684	12783	26411	
1997-98	10895	1396	8349	20640	3190	644	7482	11316	14085	2040	15831	31956	
1998-99	12544	1710	9622	23876	3413	750	8821	12984	15957	2460	18443	36860	
1999-00	14845	2423	11697	28965	3518	749	13036	17303	18363	3172	24733	46268	
2000-01	16583	3245	13486	33314	4218	974	14321	19513	20801	4219	27807	52827	
2001-02	18829	3777	17904	40510	4777	1077	15683	21536	23605	4854	33587	62046	
2002-03	19707	4775	21104	45585	4010	1295	18670	23975	23716	6070	39774	69560	
2003-04	22697	6088	26192	54976	4262	1493	26249	32005	26959	7581	52441	86981	
2004-05	27261	10010	38791	76062	4163	2394	42690	49247	31424	12404	81481	125309	
2005-06	34997	12712	57640	105350	4788	2511	67836	75135	39786	15223	125476	180485	
2006-07	38622	16631	92846	148099	3858	3804	73639	81301	42480	20435	166485	229399	
2007-08	43294	21133	116966	181393	4964	4179	64121	73264	48258	25312	181087	254657	
2008-09	40230	22413	147818	210461	5961	4352	81133	91446	46191	26765	228951	301907	
2009-10	56946	29802	189908	276656	6551	5415	95892	107858	63497	35218	285800	384514	
2010-11	69038	38121	228391	335550	9083	6172	117486	132741	78121	44293	345877	468291	
2011-12	81829	47401	266928	396158	6134	7049	101688	114871	87963	54450	368616	511029	
2012-13	102592	55957	314950	473500	8611	7724	117540	133875	111203	63681	432490	607375	
2013-14	113574	70697	364164	548435	6390	11956	163342	181687	119964	82653	527506	730123	
2014-15	130350	89326	415736	635412	8119	13157	188640	209916	138469	102483	604376	845328	
2015-16	143803	101579	419931	665313	9492	17681	223024	250197	153295	119261	642954	915510	
2016-17	131880	105001	452576	689457	10878	18215	347205	376298	142758	123216	799781	1065756	
2017-18	136102	119790	497322	753214	14219	21426	347205	382850	150321	141216	844527	1136064	
2018-19	142750	125654	483805	752209	9591	24013	471017	504620	152340	149667	954823	1256830	
2019-20	148287	138069	538795	825151	9080	27257	531241	567579	157367	165326	1070036	1392729	
2020-21	179267	156369	558121	893757	11415	33643	636583	681641	190682	190012	1194704	1575398	
2021-22	229093	166782	703804	1099679	14127	37398	712160	763685	243220	204180	1415964	1863363	
CAGR (%)	13.75	23.83	22.47	19.56	6.35	19.13	20.86	19.24	12.82	22.75	21.83	19.53	

Source Department of Agriculture, Cooperation & Farmers Welfare, GoI

Note ST= Short Term, MT= Medium Term and LT= Long Term

Table 4 Region-wise credit flow to agricultural sector in India

(Rs.crore)

Region	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	CAGR (%)
Northern region	167813 (22.98)	202479 (23.95)	216919 (23.69)	232847 (21.85)	256991 (22.10)	270197 (21.50)	283945 (20.39)	269899 (17.13)	303191 (16.27)	6.27
North Eastern region	4345 (0.60)	4453 (0.53)	5833 (0.64)	8773 (0.82)	10273 (0.88)	11172 (0.89)	11809 (0.85)	16502 (1.05)	14085 (0.76)	18.37
Eastern region	56217 (7.70)	80013 (9.47)	103673 (11.32)	86860 (8.15)	96751 (8.32)	113792 (9.05)	131668 (9.45)	151007 (9.59)	201727 (10.83)	13.12
Central region	110929 (15.19)	133118 (15.75)	153289 (16.74)	156476 (14.68)	167096 (14.37)	171261 (13.63)	197015 (14.15)	223109 (14.16)	239168 (12.84)	8.70
Western region	95420 (13.07)	106981 (12.66)	107934 (11.79)	136787 (12.83)	136374 (11.73)	151115 (12.02)	156206 (11.21)	185151 (11.75)	227017 (12.18)	9.92
Southern region	295398 (40.46)	318284 (37.65)	327862 (35.81)	444013 (41.66)	495132 (42.59)	539292 (42.91)	612087 (43.95)	729731 (46.75)	878175 (47.13)	14.01
All India	730123 (100)	845328 (100)	915510 (100)	1065756 (100)	1162617 (100)	1256830 (100)	1392729 (100)	1575398 (100)	1863363 (100)	11.03

Source NABARD Data Bank (various issues) and Ensure Portal, NABARD

Note Figures in parentheses indicate the percentage share in Total GLC

Table 5 Region-wise average loan disbursement per account during 2021-22

(Amount Rs.)

Region	Average loan amount of all farmers	Average loan amount of small/marginal farmers	Agriculture credit disbursement per ha
Northern region	152025	105692	72991
North Eastern region	70250	58980	21756
Eastern region	78668	55267	84035
Central region	101921	73309	40829
Western region	164714	94283	63983
Southern region	129580	108592	259554
All India	122099	90836	93210

Source Authors calculated based on NABARD Data Bank (various issues) and Ensure Portal, NABARD

Table 6 Region-wise and agency-wise average share in agriculture credit disbursement between 2017-18 to 2021-22

(%)

Region	Cooperative Banks			Regional Rural Banks			Commercial Banks			Total Agri. Credit		
	ST	LT	TL	ST	LT	TL	ST	LT	TL	ST	LT	TL
Northern	22.55	13.97	21.96	21.70	5.78	19.00	21.92	15.63	18.83	22.01	15.10	19.23
North Eastern	0.07	2.09	0.21	0.30	3.88	0.91	0.32	1.69	1.00	0.27	1.81	0.89
Eastern	16.37	12.15	16.08	9.50	35.61	13.92	3.24	12.50	7.80	6.78	13.66	9.54
Central	15.03	4.01	14.26	24.54	3.33	20.95	14.30	11.07	12.71	16.13	10.53	13.88
Western	16.73	28.55	17.55	5.71	1.44	4.99	9.67	14.41	12.00	10.36	14.06	11.84
Southern	29.24	39.23	29.94	38.25	49.95	40.23	50.55	44.69	47.67	44.46	44.84	44.61
Total	100	100	100	100	100	100	100	100	100	100	100	100

Source Authors calculated based on Data on Ensure Portal, NABARD

Note ST=Crop Loan, LT= Long Terms and TL=Total Loan

central region accounts for 28.77% of the gross sown area (GSA), 34.75 % of the gross irrigated area (GIA), 33.24% of foodgrains, 27.92% of oilseeds, 29.14% of vegetables and 21.73% of fruits and has a cropping intensity of 149%, but it hardly accounts for 13.88% of the agriculture credit. The northern region has the highest cropping intensity (178%) and with 20.96% share in the GSA and 25.35% in the GIA accounts for hardly 19.23% of agriculture credit disbursed. The share of the eastern region is quite low, compared to its share in the GSA and GIA. The southern region accounts for around 16.96% of the GSA and 14.56% GIA but accounts for the highest share (44.61%) of agricultural credit disbursed. The ratio of agricultural credit to agricultural gross valued added (AgGVA) varies from 21.22% in north eastern region to 140.44% in southern region as against 43.65% at the all India level. The higher share of the southern region could be due to better infrastructure facilities, better outreach, and credit delivery outlets (Kumar 2021). The situation is improving in the eastern and north eastern regions due to special initiatives taken by the NABARD.

Disparities by landholding size

Disparities in credit disbursement occur not just across regions but also across farm classes. Data reveals, that although small and marginal farmers (SMF) have a share of 77.0% in the loan accounts with Commercial Banks, their share in loan disbursed by these is 53.4% in 2021-2022 (Table 8). This is mainly on account of lower loan amount sanctioned for the SMF. Cooperative Banks and RRBs have relatively higher share of 63.8% and 72.4%, respectively, in their total lendings to small and marginal farmers. The average loan disbursement per account for SMF was Rs.90836, varying from Rs.69728 by Cooperative Banks to Rs.121439 by RRBs.

Trends in agricultural credit performance indicators

Agricultural credit as a proportion of agricultural gross value added (AgGVA) has been increasing continuously, from 34.02% in 2011-12 to 47.03% in 2021-22 (Table 9). The agricultural credit as proportion of total GVA, which increased from 6.30% in 2011-12 to 8.72% in 2021-22. The agricultural credit per hectare of gross cropped area has shown an increasing trend. It increased from Rs.26100 in 2011-12 to Rs.93210 in 2021-22. More than three-fold increase has been

Table 7 Regional distribution of agriculture credit and real sector indicators

Region	Credit disbursement@	Gross sown area#	Gross irrigated area#	Cropping intensity#	Food-grains*	Oilseeds*	Vegetables*	Fruits*	Gross Value added*	Ratio of agri credit to agri GVA (2020-21)	Share in rural/semi urban branches (As on 31-3-2022)
Northern	19.23	20.96	25.35	177.53	25.45	24.7	9.06	6.95	9.14	85.75	16.77
North Eastern	0.89	3.22	0.97	140.98	2.9	1.24	3.46	4.84	2.23	21.22	3.97
Eastern	9.54	12.08	13.37	143.99	16.69	4.97	30.09	12.19	9.51	44.00	19.42
Central	13.88	28.77	34.75	148.94	33.24	27.92	29.14	21.73	16.12	34.98	21.71
Western	11.84	17.97	10.99	125.19	6.97	30.57	13.45	20.46	9.37	52.31	11.83
Southern	44.61	16.96	14.56	131.35	14.74	10.6	14.52	33.7	13.01	140.44	26.28
All India	100	100	100	143.16	100	100	100	100	43.65		100

Source Authors compilation using data from the Handbook of Statistics on Indian Economy, RBI 2021 and 2022 and Ensure Portal of NABARD

Note # Indicates average of five years (2013-14 to 2017-18), * Indicates average of five years (2015-16 to 2019-20 and @ Indicates average of five years (2017-18 to 2021-22)

Table 8 Ground level credit flow to agriculture-share of small and marginal farmers

Year	Agency	No. of accounts (lakh)			Loan disbursed (Rs.crore)			Average loan amt of SF/MF (Rs.)
		Total	SF/MF	Share of SF/MF (%)	Total	SF/MF	Share of SF/MF (%)	
2013-14	Comm. Banks	385.2	232.5	60.4	527506	201296	38.2	86579
	Coop. Banks	321.4	206.5	64.1	119964	69352	57.8	33585
	RRBs	99.3	66.6	67.1	82653	51359	62.1	77116
	Total	805.9	505.6	62.7	730123	322007	44.1	63739
2014-15	Comm. Banks	426.2	195.4	45.9	604376	197540	32.7	101095
	Coop. Banks	306.9	202.8	66.1	138471	78736	56.9	38824
	RRBs	120.5	87.8	72.9	102483	70390	68.7	80171
	Total	853.6	486.0	56.9	845328	346666	41.1	71286
2015-16	Comm. Banks	441.6	210.2	47.6	642954	200346	31.2	95312
	Coop. Banks	324.2	232.9	71.8	153295	97999	63.9	42078
	RRBs	133.2	97.3	72.8	119261	81653	68.5	84178
	Total	899.6	540.4	60.7	915510	379998	41.5	70318
2016-17	Comm. Banks	664.2	482.5	72.6	799781	362675	45.4	75166
	Coop. Banks	269.5	190.1	70.5	142758	89178	62.5	46911
	RRBs	137	99.0	72.3	123216	82496	67	83329
	Total	1071	771.6	72.6	1065755	534351	50.1	69252
2017-18	Comm. Banks	732.7	556.9	76.0	871080	389866	44.8	70009
	Coop. Banks	254.6	183.7	72.2	150321	98109	65.3	53401
	RRBs	144.6	104.9	72.5	141216	92482	65.5	88191
	Total	1132	845.5	74.7	1162617	580457	49.9	68655
2018-19	Comm. Banks	850.1	631.8	74.3	954823	428063	44.8	67753
	Coop. Banks	255.5	192.9	75.5	152340	106849	70.1	55405
	RRBs	149.8	106.7	71.3	149667	98749	66.0	92539
	Total	1255	931.4	74.2	1256830	633661	50.4	68036
2019-20	Comm. Banks	942.7	711.8	75.5	1070036	505849	47.3	71069
	Coop. Banks	260.3	196.0	75.3	157367	109754	69.7	55991
	RRBs	156.0	111.1	71.2	165326	108125	65.4	97357
	Total	1359.0	1018.9	75.0	1392729	723728	52.0	71034
2020-21	Comm. Banks	1073.7	764.0	71.2	1194704	610505	51.1	79912
	Coop. Banks	294.6	224.8	76.3	190682	136465	71.6	60695
	RRBs	163.5	114.6	70.1	190012	124171	65.3	108311
	Total	1531.8	1103.4	72.0	1575398	871140	55.3	78947
2021-22	Comm. Banks	1068.5	822.5	77.0	1415964	756821	53.4	92018
	Coop. Banks	290.1	222.7	76.8	243220	155254	63.8	69728
	RRBs	167.5	121.8	72.7	204180	147900	72.4	121439
	Total	1526.1	1166.9	76.5	1863363	1059976	56.9	90836

Source NABARD Data Bank (various issues) and Ensure Portal, NABARD

Note Comm. Banks = Commercial Banks, Coop. Banks = Cooperative Banks and RRBs = Regional Rural Banks

Table 9 Ratio of direct agricultural credit (disbursements) to agricultural gross value added (AgGVA)

Year	Agricultural credit/Total GVA (%)	Agricultural credit/AgGVA (%)	Agricultural credit per ha (Rs.)
2011-12	6.30	34.02	26100
2012-13	6.60	36.26	31273
2013-14	7.05	37.90	36333
2014-15	7.35	40.38	42612
2015-16	7.28	41.10	46460
2016-17	7.63	42.31	53234
2017-18	7.54	41.29	58451
2018-19	7.32	41.48	62870
2019-20	7.59	41.47	69668
2020-21	8.72	43.65	78805
2021-22	8.72	47.03	93210

Source Authors calculations based on GLC data from NABARD, Agricultural Statistics at a Glance (2021) and RBI (2022)

registered in nominal terms during the same period.

Conclusion and policy suggestions

The share of institutional agencies in total cash debt of cultivator households increased from 7.3% in 1951 to 66.3% in 1991 and subsequently decreased to 58.4% in 2012 but increased to 67.1% in 2018-19. The total institutional credit to agriculture sector has increased more than 5.5 times during 2008-09 to 2021-22. In the total credit, the ratio of crop loans in the total loans remains high despite a decline from 69.71% in 2008-09 to 59.73% in 2021-22. It was found that the households with larger landholdings carry higher debt burden as compared to the households with smaller landholdings. The credit disbursed per hectare of GCA was Rs.93210 at all India level. The per hectare credit flow indicates an impressive increase from Rs.26100 in 2011-12 to Rs.93210 in 2021-22.

There exists inter-regional disparities in credit supply, with southern region accounting for the bulk of it, and followed by northern, western, and central regions. The disparities are well highlighted in terms of credit per hectare which is Rs.21756 per hectare in north eastern region and Rs.259554 per hectare in southern region. Less availability of credit is a disincentive to the adoption of modern farming techniques and private capital investment, which in turn hamper realization of the full potential of agricultural sector, and also pushes farmers to borrow from non-institutional

sources. Consequently, the demand for agricultural credit for short and long-term purposes is dampened.

These findings have some important implications for agricultural credit system

Enhance outreach of rural financial institutions

- Due emphasis should be given on improving the health of the rural financial institutions in the regions with low credit disbursement. Recent initiatives like recapitalization of RRBs and introduction of scheme for PACS computerisation will go a long way in strengthening the rural financial institutions in the laggard regions.
- To ensure better convergence of efforts towards enhancing ground level credit flow, it is imperative that institutions and forums like State Level Bankers' Committee (SLBC), District Level Review Committee (DLRC) and Block Level Bankers' Committee (BLBC) are effectively and efficiently utilized. The review and monitoring mechanism should be strengthened particularly in districts where the Credit-Deposit (C-D) ratio is low.
- There are approximately 7.1 crore active Kisan Credit Cards (KCCs) as on 31 March 2022 against a total of 14.5 crore operational holdings in India. There is a need to sensitise all ground level bank

officials to saturate all eligible & willing farmers with KCCs.

Address demand-side challenges

- A renewed push towards enhancing the financial literacy amongst farmers is needed. Financial literacy campaigns in rural areas especially in backward areas will generate awareness and access to credit products.
- There is a need to channelize more term-loan to allied activities (dairy, poultry and fisheries) that contribute 40% to agricultural output but receive only 6 to 7% of the total agriculture credit.
- From 2021-22 onward, a separate specific target is being allocated for GLC to the allied sector (animal husbandry and fisheries). The target is proposed to be further increased to Rs.1.26 lakh crore in 2022-23 (up from Rs.0.61 lakh crore in 2021-22). This along with measures like special schemes such Kisan Credit Card for allied activities will help enhance credit demand in allied sector.
- Due emphasis should be given to strengthening ground level community institutions like Self Help Groups (SHGs), Joint Liability Groups (JLGs) and Farmer Producers Organisations (FPOs). These institutions play a critical role in group model financing and infusion of credit culture through greater community participation. The present initiatives of promoting SHGs under National Rural Livelihood Mission and creation of 10,000 FPOs (Central Sector Scheme) will go a long way in promoting credit penetration through the group mode financing.

Address structural issues

- Lack of land records is one of the reasons for low penetration of credit flow in agriculture. Therefore, the state governments should complete digitisation process and updating of land records in a time bound manner.
- In order to simplify the documentation process, state governments should give access to banks to digitised land records for verification of land titles. Banks should not insist on submission of land title documents in such cases.

- Greater credit demand in the states may be created through promotion of crop diversification schemes for high-value crops.

Tap into the digital revolution

- It is important that the existing network of Business Correspondent/Business Facilitators (BC/BFs) is channelised along with tailor-made easily accessible credit products. To fully utilize the digital penetration, App/UPI-based lending products need to be explored.
- With more than 500 million Indians connected to the internet, primarily through smartphones, the impact of digital governance could be beneficial. The budget announcement of setting up of 75 digital banking units, once operationalized, would go a long way in furthering the interest of excluded regions and excluded sections of the society.
- The operations of so-called 'digital banks'/'neo banks' formulation should be covered under Reserve Bank's regulations. 'Digital-only' Non-Banking Financial Companies can be encouraged and bank-FinTech partnerships may be streamlined (Union Budget 2021-22).

Address infrastructural bottlenecks

- To enhance credit absorption capacity of potential borrowers, investment in rural infrastructure is a sine qua non. Therefore, corpus of Rural Infrastructure Development Fund (RIDF) should be increased and the state governments, especially in regions with low credit disbursement, should be sensitised to allocate a larger portion of their borrowing from RIDF for rural infrastructure development.
- Due focus should be given on developing the requisite micro-infrastructure (like watersheds, irrigation channels, springsheds, etc.) which serve as critical linkages between major infrastructure projects and farmers.

Address anomalies in crop loaning system in southern region

- During last 8 years, agriculture credit disbursement has been growing at annual average rate of 5% and 8% in northern and central regions,

respectively, yet their share in agriculture credit has been decreasing. This is because of the rapid growth in crop loans disbursed in southern region, predominantly due to high agricultural gold loans, wherein the quantum of loan is delinked from the Scale of Finance. As per the RBI's Internal Working Group on Agriculture Credit (2019), the incidence of crop loans outside KCC is very high (71%) in southern states. In Tamil Nadu, the extent of crop loans disbursed outside of KCC is around 88%. Thus, the crop loan sanctioned is much higher than the actual credit requirement. This ultimately leads to diversion of funds and consequently high incidence of indebtedness. Therefore, in order to curb the mis-utilisation of interest subsidy, banks should provide crop loans, eligible for interest subvention, only through KCC mode.

- There is a need to address the issue of sanctioning of agricultural loans against gold as collateral. Presently, such loans are not separately flagged in the core banking solution (CBS) platform of banks. Hence, banks should develop a management information system (MIS) to flag agricultural loans sanctioned against gold as collateral in CBS in order to segregate such loans for effective monitoring of end use of funds.

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