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IMPACT OF INSTITUTIONAL CREDIT ON AGRICULTURAL PRODUCTIVITY IN INDIA

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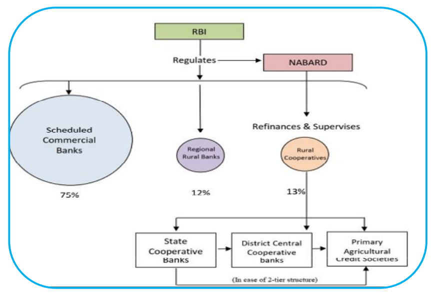
ABSTRACT:



Agriculture is a key sector of Indian economy in view of its contribution to employment and GDP. Agricultural credit plays a vital role in farm sector development and facilitates adoption of new technologies. The agricultural credit policies designed and implemented in India are mainly supply driven through targeted ground level credit, interest subvention scheme and directed lending by way of regulatory prescription under Priority Sector Lending guidelines. These policies along with other policy interventions at the level of Government and RBI have yielded commendable results in the field of agricultural credit. However, agricultural sector still faces challenges such as lack of capital formation, regional disparity, dependence of farmers especially small and marginal farmers, tenant farmers, landless labourers and share croppers on non-institutional sources of credit at significantly higher rates, non-realization of the fair price for agricultural produce causing farmers' distress and farm loan waivers impacting credit culture and weakening state finances.

Steady investments in technology development, irrigation infrastructure, emphasis on modern agricultural practices and provision of agricultural credit and subsidies are the major factors contributed to agriculture growth. Access to credit facilities is one of the key determinants of private capital formation in agriculture. Farmers' credit needs are met by institutional and non-institutional sources. Capital formation is vital for inclusive and sustainable growth of the agriculture and allied sector. The rate of growth of gross capital formation (GCF) in agriculture has shown a positive relation with the agricultural output.

KEYWORDS: *Agriculture, Institutional Credit, Gross capital formation, Import, Export, GDP.*

INTRODUCTION:

Agriculture is the backbone of Indian economy. The prosperity of the country depends up on the agriculture sector. It plays a strategic role in the economic life of the Indian society. India is principally an agricultural country. Agriculture, with its allied sectors, is unquestionably the largest livelihood provider in India. Most of the industries also depend upon the sector for their raw materials. Steady investments in technology development, irrigation infrastructure, emphasis on modern agricultural practices and provision of agricultural credit and subsidies are the major factors contributed to agriculture growth. According to Census 2011, out of the total workers of 481.7 million, there are 118.7 million cultivator and 144.3 million agricultural labourers, which mean approximately 54.6 per cent of the total workers, were employed in agriculture and allied sector. However, the percentage share of workers engaged in agriculture sector has been declining. As per Labour Bureau Report 2015-16, 46.1 per cent of the working population was employed in agriculture and allied sector. Further, as per an ILO estimate, employment in agriculture sector as percentage of the total employment was approximately 44 per cent in the year 2018. As per 10th Agriculture Census 2015-16, the total number of operational holdings in the country was 146 million and total operated area was 157.14 million hectares in 2015-16.

The novel Coronavirus (COVID-19) pandemic has rapidly spread across the world, adversely affecting the lives and livelihoods of millions across the globe. This once in a century pandemic and subsequent lockdowns imposed around the globe has caused simultaneous disruptions to both supply and demand and have adversely affected every aspect of human life. During the year 2020-21, Indian economy shrank by 7.3 percent. However, Agriculture has emerged as the silver lining with record-breaking agricultural production and agri-GDP rising by 3.63 percentage providing the cushion to the economic shock induced by COVID.

Investment in agriculture has two components viz., the Gross Fixed Capital Formation (GFCF), which includes primarily the investment in physical assets in agriculture, and the stocks which are presently in the form of inventories but which are not actually used for further production, although they could be used. The two components taken together constitute the Gross Capital Formation (GCF). Capital formation in agriculture helps in improving the stock of equipment, tools and productivity of natural resources, which, in turn, enables the farmers to use their resources, particularly land and labour, more productively. Creation of capital goods, thus, is necessary for raising productivity of existing resources and realising the longterm growth potential. There is positive relationship between capital formation and agricultural growth, and agricultural growth and poverty alleviation.

REVIEW OF LITERATURE:

Relevant literature has been exhaustively surveyed and analyzed so as to identify the current state of affairs in the fields of agriculture credit. In recent years, a number of studies have investigated the trend in regional disparities in economic development among the Indian states and the findings showed that there is a steady rise in regional disparities. (Cashin & Sahay, 1996; Bajpai & Sachs, 1996; Nagaraj et al., 1998; Rao et al., 1999; Aiyar, 2001; Sachs et al., 2002; Trivedi, 2002; Purfield, 2006; Nayyar, 2008). This paper analyses the differences among the states with a special focus on the role of agriculture, which has been considered as the most important source of economic growth. With a view to accelerate agricultural growth, both the central and the state governments have initiated several measures, major being land reforms and large investments in irrigation, roads and other rural infrastructure.

OBJECTIVES & METHODOLOGY:

The study relies on secondary data compiled from various journals, magazines working paper and news papers, Budget document and economic survey GoI etc. Data on area, production and yield were collected from the Directorate of Economics and Statistics (DES), Ministry of Agriculture. In the light of above discussion, following are the objectives of the present study:

1. To review the status of Indian agriculture
2. To analyze the institutional credit to Indian agriculture
3. To analyze the Share of Agriculture & Allied Sector in Total GVA
4. To assess the determinants of public as well as private capital formation in Indian agriculture
5. To assess the quantum of capital formation in Indian agriculture

Analysis and Interpretation of Data:

Agriculture is the oldest industry in the World and the largest even today. Agriculture is the backbone of Indian Economy.

1. Share of Agriculture & Allied Sector in Total GVA
2. Growth in Gross Value Added

3. Production of Major Agricultural Crops
4. Flow of Institutional Credit to Agricultural Sector (Rs Crore)
5. Perspective Credit Plan
6. India's Top 10 Agricultural Commodities (Exports & Imports)
7. India's Imports And Exports Of Agricultural Commodities
8. Share (%) of Gross Capital Formation (GCF) TO Gross Value Added (GVA)
9. Sectoral Contribution in Indian economy

Share of Agriculture & Allied Sector in Total GVA

Since the beginning of economic reforms in 1991, growth in agricultural GDP has shown high volatility. Gross Value Added (GVA) of Agriculture and Allied Sector and its share in total GVA of the country during the last 3 years including the current year, at 2011-12 current prices is as follows:

Table-1
Share of Agriculture & Allied Sector in Total GVA (Rs. in Crore)

Sector	2013-14	2014-15	2015-16	2016-17
GVA of agriculture and allied sector	1926372	2068958	2175547	2372085
Percentage to total GVA	18.6	18.0	17.5	17.4

Growth in Gross Value Added (at 2011-12 basic prices)

There has been a continuous decline in the share of agriculture and allied Sectors in the GVA from 18.6 percent in 2013-14 to 17.4 percent in 2016-17. Falling share of agriculture and allied sectors in GVA is an expected outcome in a fast growing and structurally changing economy. Growth (over the previous year) in the total GVA of the economy and that in the GVA of agriculture and allied sectors at 2011-12 basic prices is given below:

Table-2
Growth in Gross Value Added (at 2011-12 basic prices) (in percent)

Year	Total GVA	Agriculture & Allied sector GVA
2013-14	6.1	5.6
2014-15	7.2	-0.2
2015-16	7.9	0.7
2016-17	6.6	4.9

Agriculture and Allied sectors witnessed a growth of 5.6 per cent in 2013-14, (-) 0.2 per cent in 2014-15, 0.7 per cent in 2015-16 and 4.9 in 2016-17 at 2011-12 basic prices. The vicissitudes of growth in the agricultural and allied sector have implications for overall growth of GVA and in 2016-17 the percentage contribution to total GVA growth was much larger than 2015-16. Agricultural productivity depends on several factors. These include the availability and quality of agricultural inputs such as land, water, seeds and fertilizers, access to agricultural credit and crop insurance, assurance of remunerative prices for agricultural produce, and storage and marketing infrastructure, among others.

The perusal of below Table-3 reflects that the total oilseeds production in the country in 2016-17 is estimated at 32.10 million tonnes which is higher by 6.85 million tones over the production achieved during 2015-16. Production of sugarcane is estimated at 306.72 million tonnes which is lower by 41.73 million tonnes than the production of 348.45 million tonnes during 2015-16. Despite lower area coverage during 2016-17, higher productivity of cotton has resulted in a higher production level of 33.09 million bales (of 170 kg each), i.e., an increase of 3.09 million bales,as compared to 30.01 million bales during 2015-16. Production of jute & mesta estimated at 10.60 million bales (of 180 kg each) is marginally higher than the level of production of 10.52 million bales during the 2015-16.

Table-3
Production of Major Agricultural Crops (Million Tonnes)

Crops	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
Food grains	244.49	259.29	257.13	265.04	252.02	251.57	275.68
Pulses	18.24	17.09	18.34	19.25	17.15	16.35	22.95
Oilseeds	32.48	29.80	30.94	32.75	27.51	25.25	32.10
Cotton	33.00	35.20	34.22	35.90	34.80	30.01	33.09
Jute& Mesta	10.62	11.40	10.93	11.68	11.13	10.52	10.60
Sugarcane	295.96	342.38	361.04	341.20	352.14	362.33	348.45
Tobacco	0.80	0.75	0.66	0.74	0.84	0.80	-

Source: Annual Report, Ministry of Agriculture cooperation GoI 2017-18

Agriculture Credit:

Institutional sources consist of commercial banks, cooperative banks, regional rural banks (RRBs) and cooperative credit societies. Government announces annual target for agriculture credit in the budget every year. Agricultural credit flow has shown consistent progress every year. The agriculture credit flow target for the year 2016-17 was fixed at Rs. 9,00,000 crore and against this target the achievement was Rs.10,65,756 crore. The agriculture credit flow target for 2017-18 has been fixed at Rs.10,00,000 crore and till October, 2017 against this target a sum of Rs.6,71,113.42 crore has been disbursed.

Table-5
Flow of Institutional Credit to Agricultural Sector (Rs Crore)

Year	Cooperative Banks		RRBs		Commercial Banks		Total
	Amount	% Share	Amount	% Share	Amount	% Share	
2012-13	111203	18.31	63681	10.49	432491	71.20	607375
2013-14	119963	16.43	82653	11.32	527506	72.25	730122
2014-15	138469	16.38	102483	12.12	604376	71.50	845328
2015-16	153295	1674	119260	13.03	642954	70.23	915509
2016-17	142758	1340	123216	11.56	799781	75.04	1065755

Source: Annual Report , Ministry of Agricultur7 cooperation GoI 2017-18

The agency-wise share of credit flow to the agricultural sector during the last five years is furnished in above table.

Agricultural development has always been viewed from the production perspective. With the clarion call of 'doubling farmers' income by 2022' by the Hon'ble Prime Minister of India, the paradigm is now shifted to farmers' income. Therefore, it is time to think about agriculture from the farmers' income & welfare point of view to bring the focus on farmers.

Table-6
Perspective Credit Plan (both Investment Credit & Production Credit) for 2020 *(Rs. Crore)*

Periods	GDP Agrl @ 4.1%	GCF Agrl. ICOR =4.05	Pvt. Invt. (@ 77.8% of GCF Agrl.	Pvt. Invt + induced Invt.	Invt. Credit (@ 63.33% of pvt. invt.	Prodn. Credit (6)*3.2	Total Credit (6)+(7)	Total Credit#
2009-10	603743	122560	98048	128579	81429	260573	342002	362522
2010-11	628496	127585	102068	132599	83975	268719	352694	375619
2011-12	654264	132816	106253	136784	86625	277200	363825	389293
2012-13	681089	138261	110609	141140	89384	286028	375412	403568
2013-14	709014	143930	115144	145675	92256	295219	387475	418473
2014-15	738083	149831	119865	150396	95246	304786	400032	434034
2015-16	76345	155974	124779	155310	98358	314745	413103	450283
2016-17	799847	162369	129895	160426	101598	325113	426711	467249
2017-18	832641	169026	135221	165752	104971	335906	440877	484964
2018-19	866779	175956	140765	171296	108482	347141	455623	503464
2019-20	902317	183170	146536	177067	112137	358837	470974	522781
Total	8184618	1661478	1329183	1665024	1054461	3374267	4428728	4812250

Total credit calculated after adjusting for inflation @6.0 per cent on a tapering basis.
Source: Samir Samantara & K. C. Badatya*,A Perspective on Agricultural Credit for 2020

Agricultural Trade:

Major commodities imported to India are pulses, edible oils, fresh fruits and cashew nuts. Major commodities exported by India are rice, spices, cotton, meat and its preparations, sugar, etc. Over the past few decades, the share of agricultural imports in total imports has increased from 2.8% in 1990-91 to 4.2% in 2014-15, whereas the share of agricultural exports has reduced from 18.5% to 12.7% Below tables show the major agricultural exports and imports over the past three years.

Table-7
India's Top 10 Agricultural Commodities (Exports) (Rs. Crores)

Sl. No.	Commodity	2012-13	2013-14	2014-15	2015-16	2016-17
1	Rice-basmati	19409	29292	27599	22719	21604
2	Spices	15177	15146	14842	16630	19442
3	Rice (other than basmati)	14449	17795	20336	15483	17145
4	Cotton raw	20277	22338	11643	12821	10982
5	Sugar	8576	7179	5327	9825	8678
6	Fresh vegetables	3407	5384	4612	5237	5772
7	Coffee	4711	4799	4973	5125	5668
8	Groundnut	4065	3187	4675	4075	5454
9	Oil meals	16519	17070	8128	3599	5371
10	Cashewnut	4067	5095	5566	5028	5303
	Total Agri& allied exports	227193	262779	239471	215396	227554

Source: Pocket Book of Agricultural Statistics 2017
The perusal of above table reflects export of agriculture commodities since 2012-13.

Table-8

India's Imports and Exports of Agricultural Commodities

Year	Agricultural imports	Total imports	% share of Agricultural imports	Agricultural Exports	Total Exports	% share of Agricultural Exports
1990-91	1205.86	43170.82	2.79	6012.76	32527.28	18.49
2000-01	2086.23	228306.64	5.29	28657.37	201356.45	14.26
2010-11	51073.97	1683466.96	3.03	113046.58	1136964.22	9.94
2011-12	70164.51	2345463-24	2.99	182801.00	1465959.31	12.47
2012-13	95718.89	2669161.96	3.59	227192.61	1634318.29	13.90
2013-14	85727.30	2715433.91	3.16	262778.54	1905011.00	13.79
2014-15	121319.02	2737086.58	4.43	239681.04	1896445.47	12.64
2015-16	140289.22	2490298.08	5.63	215396.55	1716378.08	12.55
2016-17	164726.83	2577665.59	6.39	226651.94	1849428.76	12.26

Source: Pocket Book of Agricultural Statistics 2017

The perusal of above table reflects imports of agriculture commodities since 2012-13.

Table-9

India's Top 10 Agricultural Commodities (Imports) [Value In Rs crores]

Sl. N.	Commodity	2012-13	2013-14	2014-15	2015-16	2016-17
1	Vegetable oils	53562	44038	64894	68677	73047
2	Pulses	13345	11037	17063	25619	28523
3	Fresh fruits	6180	7716	9544	11072	11241
4	Cashew nut	5434	4668	6600	8701	9027
5	Wheat	6	27	61	873	8509
6	Sugar	3094	2287	3668	4038	6868
7	Cotton raw	2467	2376	3101	2566	6337
8	Spices	2716	3452	4392	5400	5758
9	Misc processed items	1268	1474	1749	1811	2116
10	Cocoa products	1049	1072	1551	1399	1540
11	Oil Meals	210	200	273	430	975
	India's Total Agri and allied imports	**95719**	**85727**	**121238**	**140311**	**164680**

Source: Annual Report ,Ministry of Agricultur7 cooperation GoI 2017-18

The above table indicates that India since ages has been known to be an agrarian country as nearly 60% of its population is dependent on agriculture for living. During the mid-1960s, India suffered a shortage of agricultural products that later on led to the green revolution that revolutionized the agricultural sector. India not only was able to fulfill the demands of countrymen but it also exported many agricultural goods for profits to other countries. In the present time as well, India's agricultural export amounts to $33.87 billion as of 2017. This amounts to 10.5% of total export that Indian does.

Gross Capital Formation (GCF) in Agriculture and Allied Sectors

Capital formation is vital for inclusive and sustainable growth of the agriculture and allied sector. The rate of growth of gross capital formation (GCF) in agriculture has shown a positive relation with the agricultural output. Public sector investment has been an important source of GCF in agriculture and an enabling factor in maintaining agricultural growth. Increase in agricultural production and productivity leads to increase in the income of the farmers. This increased income of the rural community will lead to more savings which can be used for either further development of non-agricultural occupations, as well as industry. Gross capital formation (GCF) in agriculture and allied sectors relative to GVA in this sector has been showing a fluctuating trend from 16.5 per cent in 2012-13 to 16.4 per cent in 2015-16.

Table-10
Gross Capital Formation (GCF) in Agriculture and Allied Sectors relative to GVA of the India at Constant Prices (2011-12) prices

Year	GCF of Agriculture & allied sector (Rs.in crore)	GVA of Agriculture & allied sector (Rs.in crore)	GCF of agriculture & allied sector as percentage of GVA (in percentage)
2012-13	251094	1524288	16.5
2013-14	284424	1609198	17.7
2014-15	272663	1605715	17.0
2015-16	237648	1616146	14.7
2016-17	267153	1726004	15.5
2017-18	283922	1828329	15.5
2018-19	306749	1872339	16.4

Source: Pocket Book of Agricultural Statistics, 2019

Gross Capital Formation (GCF) in Agriculture and Allied Sectors is estimated separately for public, private corporate and the household sectors. Gross Capital Formation (GCF) in Agriculture and Allied Sector relative to GVA in this sector has been showing a steady decreasing trend.

Agriculture Gross Value Added (GVA)

As per the estimates of National Income released by the Central Statistics Office (CSO), Ministry of Statistics & Programme Implementation, the agriculture and allied sectors contributed approximately 16.1% to India's GVA at current prices during 2018-19. GVA in agriculture and allied sectors and its share in total GVA of the country at current prices during the last 5 years is as follows:

Table 1:
GVA of Agriculture and Allied Sectors & its percentage share

Items	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
GVA in Agriculture and Allied Sector	2093612	2227533	2496358	2670147	2775852	3047187
Per cent to total	18.2	17.7	17.9	17.2	16.1	16.5

Source: Central Statistics Office, Ministry of Statistics and Programme Implementation, Govt. of India

The perusal of the above table reflect that there has been a continuous decline in the share of agriculture and allied sectors in the total GVA of the country from 18.2 percent in 2014-15 to 16.5 percent in 2019-20. A decline in share of agriculture and allied sectors in GVA is an expected outcome in a fast growing and structurally changing economy

Contribution to GDP:

According to 2011 census, the country's rural population is almost 83.25 crore (68.8% of total population). There has been wide consensus that the rural development should be inclusive and sustainable in order to alleviate the poverty. Agriculture is an important part of India's economy and at present it is among the top two farm producers in the world. This sector provides approximately 52 percent of the total number of jobs available in India and contributes around 18.1 percent to the GDP. Below table depict the sectoral contribution in Indian economy.

Table-11
Growth Rate of GVA at basic price at Constant (2011-12) prices (in %)

Sector	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Agriculture	1.5	5.6	-0.2	0.6	6.3	3.4
Industry	3.3	3.8	7.0	9.8	6.8	5.5
Service	8.3	7.7	9.8	9.6	7.5	7.9

Source: Central Statistics Office.

Table-12
Sectoral Share in GVA at basic price at current prices (2011-12 Series) (in %)

Sector	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Agriculture	18.5	18.2	18.6	18.2	17.7	17.9	17.1
Industry	32.5	31.8	30.8	30.0	29.8	29.3	29.1
Service	49.0	50.0	50.0	51.8	52.5	52.8	53.9

Source: Central Statistics Office.

India is expected to achieve the ambitious goal of doubling farm income by 2022. The agriculture sector in India is expected to generate better momentum in the next few years due to increased investments in agricultural infrastructure such as irrigation facilities, warehousing and cold storage. Furthermore, the growing use of genetically modified crops will likely improve the yield for Indian farmers. India is expected to be self-sufficient in pulses in the coming few years due to concerted efforts of scientists to get early-maturing varieties of pulses and the increase in minimum support price.The government of India targets to increase the average income of a farmer household at current prices to Rs 219,724 (US$ 3,420.21) by 2022-23 from Rs 96,703 (US$ 1,505.27) in 2015-16.

CONCLUSION:

Agriculture plays an important and vital role in any economy. It is directly and indirectly linked with the economic activity, growth and development of other sectors in an economy and to overall welfare and development of an economy and development of the country generally and rural development particularly. As a result of credit, Indian agriculture developed over time and showed all signs of resilience to natural shocks like droughts and famines. It acted as a means to provide control over resources to enable the farmers to acquire the required capital for increasing agricultural production.India has the capacity to produce the food grains which can make vast difference in Indian Economy. To achieve targeted mark by the government it needs to provide support in case of land, bank loans and other machineries to the small farmers along with the big farmers with this we can expect some improvement in Indian economy. Change is happening in rural India but it has still a long way to go.

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