

# IMPACT OF AGRICULTURAL CREDIT BY SCHEDULED COMMERCIAL BANKS ON PRODUCTION OF VEGETABLES IN HIMACHAL PRADESH

VIJAY KUMAR

Assistant Professor, Department of Commerce, Government College Chamba

## ABSTRACT

Agriculture has been the chief source of livelihood in the maximum countries of the world for centuries. It has a vital role in the improvement of the life of the people in general and the development of the country at large. About 89.96 per cent population is the rural population in Himachal where agriculture is the main source of income and employment. About 10 per cent of the total GSDP comes from agriculture and its allied sectors, and 62 per cent of the entire workforce of the State depends on it. The productivity of agriculture depends upon different inputs available for agriculture. At present, agriculture is in a state of transformation stage. Proper technology with adequate capital is required for it. Credit plays a vital role in it. Commercial banks are the main source of credit for agriculture in the state. The present paper is an attempt to see the effect of Agriculture credits provided by commercial banks on vegetable production in the state. To analyse the relationship between agricultural credit and vegetable production, the hypothesis is constructed that there is a significant difference between vegetable production and agricultural credit. The analysis reveals that the R-square is 0.851 indicating that the production of vegetables explains 85 per cent of the variability in agricultural credit. So increase in agricultural credit has a significant positive impact on the production of vegetables.

**Keywords:** Agriculture Credit, Vegetable Production, Agriculture, Commercial Bank

## INTRODUCTION

After 7 decades of Political Independence, India is still a country with a rural economy. The rural economy is mainly an economy of agriculture and allied sector. In the rural economy, Agriculture is an important source of income and employment in India. It plays a vital role in the Indian economy. Agriculture has its role in food security and poverty alleviation. It plays a vital role in the improvement of people's life in general and the development of the country at large. About 89.96 per cent population is the rural population in Himachal Pradesh where agriculture is the main source of income and employment. About 10 per cent of the total SGDP comes from agriculture and its allied sectors, and 62 per cent of the entire workforce of the State depends on it. Many policies have been framed and reviewed by the Government from time to time keeping in view the essentiality of the sector. Today commercial agriculture is the demand of the hour the government is regularly working in the sector with technological advancement and by connecting it with banking

sector. Credit plays a critical role in the sector and to provide input to the sector. Many policies initiate has been taken by the government to enhance income as well as production by encouraging institutional credits in favour of farmers. Agricultural development and growth are possible only when adequate capital and proper technology are used. Credit is often a key element in the modernization of agriculture (Scobie & Franklin, 1977), credit removes financial constraints and accelerates the use of new technology. Credit facilities are an integral part of the process of commercialization of the rural economy to adopt the new initiatives.

The productivity of Indian agriculture is low compared to the productivity at the global level, the share of agriculture is decreasing toward the contribution of GDP (Sivaiah & Naidu, 2015). In order to improve productivity in farming a considerable investment of recurring and non-recurring nature is needed. Non-recurring capital invested in agriculture is used to purchase tractors, expand farms and tillers etc. The recurring capital invested in seeds, fertilizers, insecticides, labour etc. Institutional finance is one of the majors input in the agriculture sector. It is often observed that the maximum farmers have low savings. Hence, credit becomes essential to enhance productivity.

Shifting towards modern agriculture from traditional farming requires a broad institutional framework in terms of farm credit. The Government has focused on rural areas where they have the facility of connectivity of banking and networking with other financial supports. The reach of commercial banks has been increased further by the programmers of financial inclusion, in which banking correspondents provide farmers with access to banking. Priority sector lending by commercial banks, initiatives like special agricultural credit plans and doubling of agricultural credit, the introduction of the Kisan Card Scheme, linkage with self-help groups and micro-finance have all helped the process and increase the overall flow of credit to the farmers (Hoda & Terway, 2015).

The main sources of finance for agriculture are Institutional and Non-institutional. Non-institutional sources are Family, friends and moneylenders etc. For institutional credit government build a vast network, RBI and NABARD provide indirect finance where Commercial banks, RRB and Cooperatives provide direct finance to the farmers. After the nationalisation of commercial banks, Commercial banks have made considerable progress in providing institutional credit to farmers. Commercial banks acquire the largest share to provide farm credit in 2021-22 it was almost 75 per cent of total institutional credit to agriculture.

## REVIEW OF LITERATURE

(Gandhi, 1999) analysed the role of institutions in the overall development of agriculture in the economy of India. He emphasized that financial institutions were the main support of the Government for overcoming the agricultural crisis in India. He further observed that finance is one of the most important sources in each and every step of agricultural development. (Sahu & Rajasekhar, 2005) studied the trends in credit flow to agriculture by scheduled commercial banks during the period 1981-2000 and revealed that the share of credit to agriculture to net bank credit has significantly declined especially after reforms. (Anjani Kumar et al., 2010) is the performance of institutional credit to agriculture and the determinants of institutional agricultural credit use at the household level have been analyzed in the present study. The study has shown that the institutional credit flow to agriculture has been increasing for the past four decades. The share of institutional credit was 7% in 1951 which rose to 64.3% in 2002-03. The share of investment credit in total credit declined from 18% to 6% from 1991 to 2006. Regional disparity in the disbursement of agricultural credit has been glaring, though in recent years. The choice of a credit outlet and the quantum of institutional credit availed by farming households have been found to be affected by a number of socio-demographic factors.

(Kumari, 2020) showed slow growth in commercial bank credit to agriculture in the nineties. And after nineties implementation of govt. the policy of doubling agricultural credit and other plans make the growth of commercial banks credit to agriculture. (Shivaswamy et al., 2020) has examined the trends and regional variations in institutional credit flow and the impact of institutional credit on agricultural productivity using panel data regression. The study based on the secondary data indicated that institutional credit to agriculture in real terms had registered significant positive growth during the past four decades and the highest annual growth was observed during 2001–02 to 2010–11. Scheduled commercial banks have emerged as the dominant source of agricultural credit. However, cooperative banks are still the major sources of production credit. Panel data regression model testified that institutional credit had a significant and positive impact on agricultural productivity. (Kaur & Kaur, 2018) This paper examines the extent of credit to the agriculture sector provided by cooperative banks, commercial banks and RRBs and finds that commercial banks have the leading positions in agricultural lending banks. (Narayanan, 2016) This study examines the relationship between formal agricultural credit and agricultural GDP in India, specifically the role of the former in supporting agricultural growth, the findings from the analysis suggest that over this period, all the inputs were highly responsive to an increase in institutional

credit to agriculture. A 10 % increase in credit flow in nominal terms leads to an increase by 1.7% in fertilizers (N, P, K) consumption in physical quantities, 5.1% increase in the tonnes of pesticides, 10.8% increase in tractor purchases. Overall, it is quite clear that input use is sensitive to credit flow, whereas GDP of agriculture is not. Credit seems an enabling input.

**(Iqbal et al., 2003)** Concluded the positive and significant impact of institutional credit on agricultural production and agriculture GDP in Pakistan. Other important determinants related to agriculture were found as availability of irrigation water and agricultural labour per cultivated hectare, and cropping intensity are the other important determinants of agricultural GDP. **(Das et al., 2009)** revealed that the direct agriculture credit has a positive and statistically significant and immediate impact on agriculture output, Even though after several gaps in the present institutional credit delivery system like inadequate provision of credit to small and marginal farmers, paucity of medium and long-term lending and limited deposit mobilisation and heavy dependence on borrowed funds by major agricultural credit purveyors, agriculture credit played a critical role in supporting agriculture production in India. **(Kumar & Singh, 2007)** Analyses the impact of co-operative credit on agriculture input, land improvement, production, and marketing in mid hill zone of Himachal Pradesh. The study, based on primary data, concludes the issues like misuse of loans, neglect of marginal farmers and credits benefits. Study also revealed the perfect positive relationship between agricultural inputs and the level of production.

### **OBJECTIVE OF THE STUDY**

- To study the growth of institutional credit to agriculture sectors by commercial banks to study area.
- To find out the relationship between institutional credit by commercial banks and agriculture output.

### **RESEARCH METHODOLOGY**

The present study is based on Secondary data available from different sources regarding Agricultural Credit to the State by commercial banks, and the production of Vegetables of the state from 2011-12 to 2020-21 was used for the study. The methods used for the analysis are given below:

a) Compound Annual Growth Rate (CAGR) has been used to assess the growth over the given period. The formula used was

$$\text{CAGR} = (\text{EV} / \text{BV})^{1 / n} - 1$$

Where:

EV = Investment's ending value

BV = Investment's beginning value

n = Number of periods (months, years, etc.)

b) Log regression analysis is used for analysis to understand the relationship between Agricultural Credit to the State by commercial banks and the production of Vegetables in the state.

$Y=a+bx$

Where, Y is the dependent variable i.e., production of vegetables.

X is the independent variable i.e., Total Agricultural Credit by commercial banks.

'a' is the intercept

'b' is the slope.

Further function transformed into the logarithmic form so that it can be solved by the methods of least squares.

$\log Y = \log a + b \log X$

## RESULTS AND DISCUSSION

a) **Growth of Agriculture Credit to the state by commercial banks:** Table 1 shows the number of Functioning Offices of Commercial banks in Himachal Pradesh. It has seen a rise in the penetration of banking services over the years at the All India Level as well as in Himachal Pradesh. As per the data available from Branch Banking Statistics RBI, the number of branches of scheduled commercial banks has risen in the previous period. The number of branches of scheduled commercial banks grew from 736 in 1991 to 787 in 2001, further rising to 1198 in 2011-12 and 1727 in 2020-21.

**Table: 1; Number of Functioning Offices of Commercial banks in Himachal Pradesh**

Year	Himachal Pradesh
2011-12	1198
2012-13	1273
2013-14	1402

2014-15	1502
2015-16	1590
2016-17	1652
2017-18	1640
2018-19	1659
2019-20	1678
2020-21	1727

Source: Branch Banking Statistics. RBI.

Table 2 depicts the growth of agricultural credit advanced by scheduled commercial banks in Himachal Pradesh and All India. Due to the government policies, agricultural credit disbursement in the country increased from Rs. 461000crore in 2011-12 to Rs. 1367970crore in 2020-21 at a compound annual growth rate (CAGR) of 12.60 per cent and that for Himachal Pradesh increased from Rs. 2400crore in 2011-12 to Rs. 6525 crore in 2020-21 at a CAGR of 12.23 per cent. The growth of the state has been significant as per the growth at the all India Level.

**Table 2 Growth of Agriculture credit by Commercial Bank to HP**

Year	Himachal Pradesh	ALL INDIA
2011-12	2400	461000
2012-13	2800	561900
2013-14	3300	676100
2014-15	4100	841800
2015-16	4500	904300
2016-17	5900	951000
2017-18	5700	1078300
2018-19	5800	1199500
2019-20	6560	1349626
2020-21	6525	1367970
CAGR	12.23164	12.60131

Source: Handbook of statistics on Indian economy RBI Publications

**Table 3; Flow of Agriculture credit and Agriculture Production**

State/Union Territory	Agriculture credit to HP (in Crore Rs)	Total Production of Vegetables In HP (in Thousand Tonnes)
2011-12	2400	1581.5
2012-13	2800	1521.1
2013-14	3300	1635.9

2014-15	4100	1585.4
2015-16	4500	1715.2
2016-17	5900	1783.8
2017-18	5700	1811.8
2018-19	5800	1755.4
2019-20	6560	1856.8
2020-21	6525	1875.2
CAGR	12.2316	2.2809

Source: Handbook of statistics on Indian economy RBI Publications

Table 3 depicts the growth of agricultural credit advanced by scheduled commercial banks and the growth of the production of vegetables in Himachal Pradesh. In the past period, agriculture credit from commercial banks shows growth at CAGR at 12.2316 per cent and on the production of vegetables, it seems as 2.2809 per cent.

**Table 4; Relationship between Agriculture Credit and Vegetable production in Himachal Pradesh**

	Agriculture Credit
<b>R<sup>2</sup></b>	0.851
<b>t-test</b>	6.749
<b>P-value (Sig.)</b>	0.000
<b>F- Value</b>	45.549

The analysis reveals that the R-square is 0.851 indicating that the production of vegetables explains 85 per cent of the variability in agricultural credit. The Anova result showed that the P-value is 0.000 which is less than 0.5 hence we say that there is a significant relationship between Agri credit and Vegetable production. So it can be concluded that the increase in agricultural credit has a significant positive impact on the production of vegetables.

## CONCLUSION

Agriculture has been the chief source of livelihood in the maximum countries of the world for centuries. The productivity of agriculture depends upon different inputs available for agriculture. At present, agriculture is in a transformation stage. Proper technology with adequate capital is required for it. Credit plays a vital role in it. Commercial banks are the main source of credit for agriculture in the state. The present paper is an attempt to see the growth of agriculture credit to the state further attempt is made to see the effect of Agriculture credits provided by commercial banks on vegetable production in the state. The Compound Annual growth of agriculture

credit by commercial banks to the state of HP has 12.23 per cent as compared to 12.60 per cent of all India, which reveals that the growth of the state has been significant as per the growth at all India levels. To analyse the relationship between agricultural credit and vegetable production, the hypothesis is constructed that there is a significant difference between vegetable production and agricultural credit. The analysis reveals that the R-square is 0.851 indicating that the production of vegetables explains 85 per cent of the variability in agricultural credit. So increase in agricultural credit has a significant positive impact on the production of vegetables.

## REFERENCES

- Anjani Kumar, Krishna M. Singh, & Shradhajali Sinha. (2010). Institutional credit to agriculture sector in India: Status, performance, and determinants. *Agricultural Economics Research Review*, 23(2), 253–264. <https://doi.org/DOI:10.22004/ag.econ.96935>
- Das, A., Senapati, M., & John, J. (2009). *Impact of agricultural credit on agriculture production: An empirical analysis in India* (pp. 75–107). <https://rbidocs.rbi.org.in/rdocs/content/PDFs/3ABDMS060810.pdf>
- Gandhi, V. P. (1999). Institutional framework for agricultural development. *Indian Journal of Agricultural Economics*, 54(1), 48–52. <https://ageconsearch.umn.edu/record/297653/files/ijae-284.pdf>
- Hoda, A., & Terway, P. (2015). *Credit Policy for Agriculture in India—An Evaluation*. Indian Council for Research on International Economic Relations. Working paper 302. [https://icrier.org/pdf/Working\\_Paper\\_302.pdf](https://icrier.org/pdf/Working_Paper_302.pdf)
- Iqbal, M., Ahmad, M., Abbas, K., & Mustafa, K. (2003). The impact of institutional credit on agricultural production in Pakistan [with comments]. *The Pakistan Development Review*, 469–485. <https://www.jstor.org/stable/41260420>
- Kaur, S., & Kaur, J. (2018). Growth of Institutional Credit Flow to Agriculture Sector in India. *International Journal of Research*, 5(12), Article 12. <https://journals.pen2print.org/index.php/ijr/article/view/15554>
- Kumar, S., & Singh, R. (2007). Impact of cooperative credit on the agriculture sector of Himachal Pradesh: A study of the mid-hill zone. *Social Change*, 37(2), 53–68. <https://journals.sagepub.com/doi/abs/10.1177/004908570703700204>
- Kumari, P. (2020). Role of institutional credit for agriculture. *PalArch's Journal of Archaeology of Egypt/Egyptology*, 17(9), 3316–3327. <https://archives.palarch.nl/index.php/jae/article/view/4385>
- Narayanan, S. (2016). The productivity of agricultural credit in India. *Agricultural Economics*, 47(4), 399–409. <https://doi.org/doi.org/10.1111/agec.12239>
- Sahu, G. B., & Rajasekhar, D. (2005). Banking Sector Reform and Credit Flow to Indian Agriculture. *Economic and Political Weekly*, 40(53), 5550–5559. <https://www.jstor.org/stable/4417608>
- Scobie, G. M., & Franklin, D. L. (1977). The impact of supervised credit programmes on technological change in developing agriculture. *Australian Journal of*





*Agricultural Economics*, 21(1), 1–12. <https://doi.org/10.1111/j.1467-8489.1977.tb00189.x>

Shivaswamy, G. P., Raghavendra, K. J., Anuja, A. R., Singh, K. N., T, R., & V, H. K. H. (2020). *Impact of institutional credit on agricultural productivity in India: A time series analysis*. <http://krishi.icar.gov.in/jspui/handle/123456789/46266>

Sivaiah, K., & Naidu, V. B. (2015). Need and importance of institutional finance for agricultural development. *International Journal of Multidisciplinary Research and Development*, 2(6), 254–257. <http://www.allsubjectjournal.com/archives/2015/vol2/issue6/50>