



Credit facility for horticultural sector in India – An empirical study

TUHIN NARAYAN ROY^{1*} and PINAKI ROY²

Uttar Banga Krishi Viswavidyalaya, Pundibari, West Bengal 736 165, India

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ABSTRACT

Working with the secondary sources of empirical data (2009–10 to 2018–19), the present study tries to show the status of agricultural credit facility with special reference to horticultural sector in India. Tabular analysis with simple compound annual growth rate (CAGR) has been done in 2020. In case of crop loan (short-term credit), agriculture and horticulture have no difference and the system of delivery is also similar. Horticulture finance includes loans for development of fruit orchard, poly-house, green house development and marketing of such produce. Agricultural credit is vital in India for 86.2% small and marginal farmers for capital formation. Financial support in horticulture was lacking. Productivity credit *inter alia* as evinced in term of growth rates of area (CAGR=1.56%), production (CAGR=2.72%) and productivity (CAGR=1.28%) shows better performances compared to agriculture. But fund allotment in government (govt.) budget for horticulture remains almost constant (CAGR=0.86%). Study suggested for more investment (public and private) in horticulture since it contributes 29.2% of agricultural GDP and provides nutritional security. Popularization of microcredit, farmers' awareness and improve technologies for delivery of institutional loan can be ensured. Diversion of crop loan must be checked. Study also highlights different govt. schemes for overall development of the horticulture sector.

Keywords: Agricultural credit, Growth trend, Horticulture, Investment, Schemes

Agricultural credit has a vital role in farm production but horticulture sector is lacking of govt. support (Amin *et al.* 2017). Horticulture is a potential enterprise and its expansion helps country's economic growth, employment and livelihood (NABARD 2019). Growth rate of horticulture (4.9%) is higher as compared to food crop (1.7%) during 2001–02 to 2018–19 (GoI 2019) which contributes 29.2% of total agricultural GDP in India (Choudhary 2013). Development of horticultural sector largely depends upon the processing sector and this sector also requires adequate long-term credit/investment beside some perennial crops. Share of private investment in agriculture has come down to 82.7% in 2016–17 from 88.1% in 2013–14 (Jayan 2019). Annual Report of NABARD (National Bank for Agriculture and Rural Development) 2018–19 has stressed that in the event of 'Doubling of Farmers' Income by 2022' more investment in horticulture sector would be required. Inadequate capital availability is the most limiting factor for modernisation of agriculture (Roy and Bhattacharyya 2020). Indian agriculture is exposed to low returns and risks, and uncertainties. As most of the farmers are resource-poor, it is essential for them to borrow (called credit). In a study of

seven post-harvest infrastructure units in Maharashtra and Karnataka, Kshirsagar (2004) found that on an average the credit gap ranged from 14–34%. However, being a "critical input", agricultural credit has an important role in input and out markets in modern agricultural economy (www.shodhganga.inflibnet.ac.in 2020).

For a variety of reasons, around 30% of agricultural households still find it easier to avail credit from non-institutional sources, despite significantly higher rate of interest (www.economic times.in). More than 30% of villages are still financially excluded (Roy 2017). Govt. policy towards extending credit facility is on increasing trend. India's target of 4% growth rate in agriculture is possible if growth rate of horticulture is increased. In 2019–20 and 2020–21, the target amounts were ₹13,00,000 cr. and ₹20,00,000 cr. respectively. However, the big question is whether it is going to the right person (s) (Mukherjee, 2019). There are lot of evidences that fund allotted for crop loan are being diverted due to leakage in the policy procedure itself (RBI 2019). In the above context, an effort has been made in this exercise to study the facilities and status of agricultural/horticultural credit delivery system in India with special reference to horticultural sector. The study also highlights different govt. policies for financing horticultural industry.

MATERIALS AND METHODS

The study has used the secondary information/data.

¹Uttar Banga Krishi Viswavidyalaya, Pundibari, Coochbehar, West Bengal; ²ICAR-Indian Council of Agricultural Research, New Delhi. *Corresponding author email: tuhinroy@rediffmail.com

These data have been collected from different sources like books, journals, reports, papers, websites, etc. during 2020. Data presented in tabular and graphical form. Besides, simple statistical tools, trend analysis by estimating CAGR (compound annual growth rate) has been done. CAGR is estimated according to the following technique:

$$Y_t = Y_0 (1 + r)^t$$

Transforming this to logarithmic form, $\ln Y_t = \ln Y_0 + t \ln (1 + r)$.

where Y_t , variable for which growth is calculated; r , annual compound growth rate and $\ln$, natural logarithm. Now, let $\ln Y_0 = b_1$ and $\ln (1 + r) = b_2$

Therefore, the above equation becomes, $\ln Y_t = b_1 + b_2 t$. Now, b_1 and b_2 are estimated by Ordinary Least Square (OLS) method.

The CAGR or “ r ” = $(\text{antilog } b_2 - 1) \times 100$ (Sendhil 2012)

RESULTS AND DISCUSSION

System of institutional agricultural credit delivery: Agricultural credit system in India is supply-driven and delivered through multi-agencies (institutional and non-institutional) in the name of short-term, medium-term and long-term credit. Short term loan is also called as crop loan and it is given to the farmers for growing commercial crops. Different institutional sources are (a) banks (commercial-76% and regional rural bank-12%); (b) cooperative societies/banks (12%) and (c) govt. (negligible). These agencies receive funds from the refinancing institute, NABARD (National Bank for Agriculture and Rural Development). Holding of KCC (Kisan Credit Card) is the main criteria for obtaining loan. Now-a-days different microfinance institutes like SHG (self-help group), NGO (non-govt. organization, etc.) also provide small credit to the rural people after the policy of SHG-bank linkage. Besides, rural people also take loan from private parties (money lender, relatives, merchant, neighbour, etc.) with higher rate of interest for different purposes (productive as well as consumption). Agriculture Loans

are given directly to individual farmers (including SHGs to Joint Liability Groups (JLGs), etc.) or group of farmers and indirect agriculture loans include loans to corporate including farmers' producer companies of individual farmers, partnership firms and co-operatives of farmers, etc. Low access to institutional credit indicates that credit delivery mechanism has to be organized to target each and every people particularly in rural area. Mohan (2006) opined on the shifting mode of agriculture towards *inter alia* other sectors including horticulture, food processing, other agro-processing made it essential

that for delivery of adequate direct agricultural credit, the gaps in the flow of agriculture credit via institutional setup in India should be reduced.

Trend of agricultural credit flow: Operational mechanism crop loan in the prevailing agricultural credit system is similar for both agriculture and horticulture. Agricultural credit flow implies the quantum of delivery of agricultural credit from institutional sources (Commercial Bank, Regional Rural Bank, Cooperative Bank and Govt.). Achievement on agricultural credit supply always surpasses the target which indicates high demand for credit. During 2009–10, the target and achievement were ₹325000 Cr. which had been increased to ₹900000 Cr. and ₹1065755.67 Cr. respectively during 2015–16. The estimated CAGR for target and achievement are very high at 12.96% and 12.57% respectively (RBI, Govt. of India 2020).

Short-term and long-term credit: Short-term crop loans are used for pre-harvest activities such as weeding, harvesting, sorting and transporting. Long-term loans are taken to invest in agricultural machinery and equipment, or irrigation. This means long-term credit is utilized for capital formation (Roy 2016). Long-term or investment credit is more important for horticultural sector since majority of its crops are perennial in nature. Trends (Fig 1) shows that during the period 2009–10 to 2018–19, share of short-term credit increases from 59–75%, whereas, share of long-term credit declines from 41–25%. Values of CAGR for short-term credit (15.13%), long-term credit (7.14%) and total credit (12.57%) remain in conformity with the trend (Fig 1).

Under Interest Subsidy scheme, 2% subsidy is provided to farmers on their short-term credit up to ₹3 lakh. An additional interest subsidy of 3% is provided for repaying loan on time (within a year). In 2020–21, the govt. has allotted ₹21,175 crore for this scheme which is 18.5% increase over the previous year (www.prindia.org/).

The declining trend of investment (long-term) credit is a cause of concern due to its importance for the long-

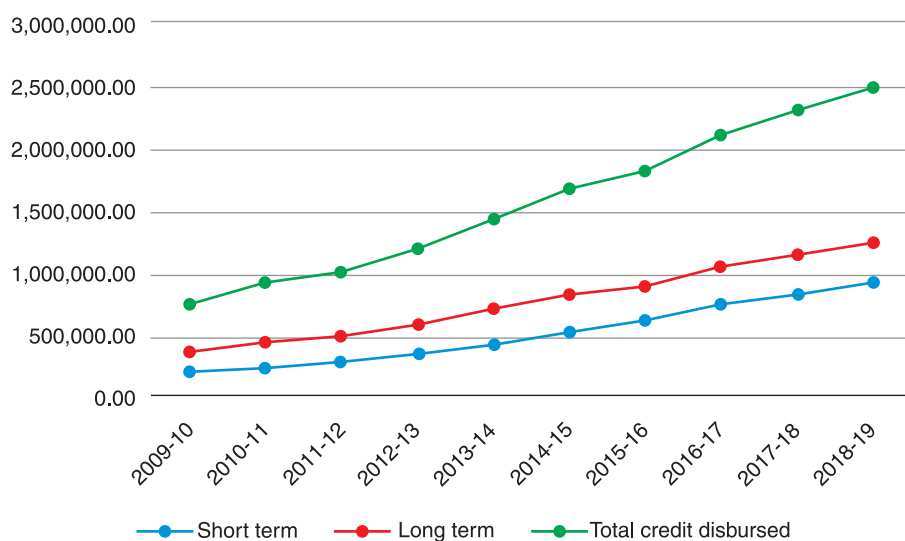


Fig 1 Trend of short term, long term and total credit (2009–10 to 2018–19)

Source: Estimated from RBI report, 2020.

Table 1 Progress of agriculture (food grain) and horticulture in production front

Year	Agriculture			Horticulture		
	Area (‘000 ha)	Production (‘000 tonnes)	Productivity (kg/ha)	Area (million ha)	Production (million tonnes)	Productivity (MT/ha)
2010-11	126671.00	244482.00	1930	22.00	241.00	11.00
2019-20	127524.29 (R)	2955670.00	2235 (R)	25.70	315.35	12.50
CAGR(%)	0.06	27.27	1.47	1.56	2.72	1.28

Source: National Horticulture Board.GoI; R=Data repeated.

term sustainability of the sector. The probable reasons are attributable to:

- Increasing fragmentation of land holding as the average land holding size has declined from 2.28 ha in 1970–71 to 1.08 ha in 2015–16 (Agriculture Census 2015–16).
- Prevalence of tenancy system in agricultural sector (RBI 2020).

In 2018-19, share of term loan has reached a decadal high of 40.2% from 35.2% in the previous year which can help in capital formation (NABARD 2018–19).

Progress of agriculture and horticulture: Quantum of institutional credits for agriculture and horticulture are found to maintain an increasing trend. Data showed that production and productivity of food grains have the positive trend in growth but area remains almost stagnant (CAGR=0.06%) (Table 1). This can be a great concern for Indian food security in future. However, in case of horticultural crops, all three economic parameters showed increasing trend in growth. In fact, beside credit, there are many unexplained parameters also.

Small and marginal farmers and agricultural credit: Small farmers produce more than 51% of total production agriculture/horticulture and allied sectors. Gulati and Juneja (2019) added that small farms can be economically viable through diversification into high-value crops and massive capital investments in value chains. In this context, existing scenario of small and marginal farmers may be looked at.

According to the 10th Agriculture Census (2015–16), small farmers (1–2 ha) and marginal farmers (<1 ha) account for 86.2% of all farmers in India, but they have just 47.3% of the crop area. Semi-medium (2–4 ha) and medium farmers (4–10 ha) constitute for 13.2% of all farmers, but own 43.6% of crop area. Besides, less than 1% of large farmers (>10 ha) have occupied more than 9% of total crop land. Fragmentation of holdings leads to inequitably distributed. Total number of operational holdings grew from 138 million (2010–11) to 146 million (2015–16) but total crop area has declined by 157.14 million ha from 159.6 million ha. The average size of holding has reduced from 1.15 ha in 2010–11 to 1.08 ha in 2015–16 and for small and marginal farmers, it is only 0.6 ha. Thus, small size of holdings being unable to produce adequate marketable surplus have become a challenge to govt. lending institutions. Institutional agencies usually try to skipped in giving loan to risky businesses like agriculture and more specifically to small and marginal farmers (Roy 2016). As reported by

NABARD, the share of SF/MFs accounts grew from 60.07% (5.40 cores) in 2015–16 to 72.06% (7.71 crore) in 2016–17. More importantly, in terms of amount disbursed, the share of SMFs grew from 41.51% (₹3.80 lakh) to 50.14% (₹5.34 lakh crore) in the same period.

Dev (2012) stressed on many technological and institutional innovations for marginal and small farmers which included (a) Special programmes for marginal and small farmers; (b) Emphasis on accelerated land and water management; (c) credit for marginal and small farmers (d) farmers’ debt commission to raise agricultural productivity and increase incomes through diversification and high value agriculture. Roy (2017) found that in spite increase of lending institute, small and marginal farmers of Coochbehar district (West Bengal) were little bit hesitated to take loan.

Priority sector lending – change of guidelines to reduce mis-use of crop loan: Priority Sector refers to those important/priority sectors of the economy which should get timely and adequate credit and agriculture is included to this sector. It was observed that the limit of crop loans (₹ 2 lakh or less) has gradually decreased from 45% 10 years ago to 40% in FY2017. Banks have been wary of lending to small farmers mainly because of the spate of loan waivers policy in recent years though RBI in 2015 advised the banks to set specific targets for small and marginal farmers.

Due to leakage in the system, loans under Priority Sector Lending (PSL) at subsidised rates were diverted to many large companies. Though the RBI had set a cap of 4.5% (under the overall 18% target for agriculture in PSL) for indirect loans, bank advances through indirect loans (dealers/sellers of fertilisers, pesticides, seeds and agricultural implements, and companies that maintain a fleet of tractors, threshers, etc.) routinely breach the limit. Accordingly, the RBI has redefined agricultural credit to cover three categories: (i) Farm Credit (short-term crop loans and medium/long-term), (ii) Agriculture Infrastructure, and (iii) Ancillary Activities. A target of 8% was also set within the overall target of 18% for small farmers. But data showed that during FY 2017, crop loan sanctioned to them was much below the target. Proportion of advances given to small and marginal farmers by nationalized and private banks was ranging between 4.5–5.5% only (RBI 2019).

Investment credit (Long-term) and subsidies for horticultural sector: Actual expenditures on horticulture sector were lower as compared to budgetary provision on central sector schemes and centrally sponsored schemes

Table 2 Central Budget and Actual Expenditures on Horticulture Sector for 2012–13 to 2017–18 (₹ in Cr.)

Year	Budgeted	Actual	Budget Vs. Actual
2012–13	2,212	1,860	-15.9%
2013–14	2,556	2,857	11.8%
2014–15	2,263	1,959	-13.4%
2015–16	2,000	1,699	-15.1%
2016–17	1,620	1,496	-7.7%
2017–18	2,329	2,035	-12.6%
CAGR (%)	0.86	1.50	-

Source: Horticulture Statistics at a Glance 2018, GoI.

(Table 2). Fund allotment in the budget remains almost stagnant (CAGR=0.86%). The growth trend of actual utilization is comparatively higher (CAGR=1.50%).

Provision of credit link subsidies has been made by NHB (National Horticultural Board) under Technology Development and Transfer and Promotion of Horticulture scheme. NHB is the approving authority and NABARD will finance the proposal. The amounts of subsidies vary from crop to crop on the basis of maximum credit limit (MCL). Small and marginal farmers may get 40–50% subsidy. Farmers of N-E states get additional benefits. Procedures remain the same for all crops. Followings are some examples credit subsidies (www.agrifarming.in 2020, www.nhb.gov.in).

- **Fruits and Vegetables**
Subsidy is available for seed production (up to 5 ha), hi-tech nursery (2–4 ha), small nursery (1 ha), new orchard (5 ha), fruit without integration (NE region), etc.
- **Spices crop**
Seed crops and perennial spice crops can avail this opportunity.
- **Flower Farming**
Subsidy is kept for loose bulbous and cut flowers for maximum 2 ha.
- **Plantation Crops**
Farms of cashew, cocoa, coconut, etc. including re-planting get credit subsidy for maximum 4 ha.
- **Aromatic crops**
Cultivation of maximum 4 ha of farm has the option to avail credit subsidy.

Besides, additional benefits are available for N-E States even for dis-integrated farming.

Horticulture subsidy fund can also be available with NABARD's different agricultural and rural development schemes like (a) Rural Infrastructure Development Fund (RIDF), (b) Watershed Development Fund (WDF), (c) Farmers' Club, (d) SHGs, (e) other NGOs, etc.

The role of its processing units for overall development of this sector is very important. However, processing sector is categorized under the MSME (Micro, Small and Medium Enterprise) or village industries by the govt. Credit facility in this sector will set the balance between backward linkage and

(crop production) forward linkages (processing sector). Bank credit has started funding this sector (NABARD 2018–19). Of late, many horticultural crops have been brought under the PMICIS (Prime Minister Crop Insurance Scheme) for the extending financial support to reduce risk.

Digital Innovation and Recommendation for Effective Credit Delivery: RBI has adopted couple of strategic policies some of which are follows;

- Digitisation of land records to view land records online for agricultural credit.
- e-NAM, a technology driven system for market information.
- Facilities for weather forecasting to given information in advance.
- Creation of awareness among poor farmers to avail credit facility.
- Reduction of red tapism in credit sanctioning procedures.
- A technology driven portal for the banks to facilitate ease of credit deliver.
- Emphasis on mobile-based application for loan and online transfer.

Thus, the present study shows that agricultural credit delivery system has significant positive impact on horticultural sector in terms of growth rates of area, production and productivity compared to agriculture. Lack of appropriate financial support has been observed. This sector is the main contributor to agricultural GDP, so more and more investment supports both from public and private sector are necessary for country's overall agricultural growth. Financial inclusion of small and marginal farmers who are dominants is the priority with improve technologies for adequate and smooth delivery of institutional loan specially microcredit. Steps to make farmers aware are also required. Diversion of crop loan must be checked. Horticulturists may avail financial supports through different govt. schemes for overall development of the sector.

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