



## AGRICULTURE DEVELOPMENT THROUGH KISAN CREDIT CARD SCHEME IN WESTERN MAHARASHTRA

**Dr. Anna K. Patil**

Associate Professor

Department of Economics,

S. G. M. College (Autonomous),

Karad, Maharashtra

### Abstract

The 'Kisan Credit Card' (KCC) scheme was introduced in August 1998 by GoI. NABARD formulated the scheme for uniform adoption by banks so that farmers can use the card for their cash credit need and purchase inputs such as seeds, fertilizers, pesticides and also allow them to withdraw some cash for meeting their other crop production related requirements. It is multi-credit product system by offering farm entrepreneurs, single line of credit through a single window for multiple purposes. The scheme is faster circulated through all commercial banks, cooperative banks and Regional Rural Banks in the country. It aims to provide crop loans up to Rs. 3 lakh to farmers at an interest rate of 2% per year. The KCC scheme is enormously benefited to farmers in Western Maharashtra. Repayment period is based on the harvesting and marketing of crops for which the loan amount was taken out.

**Keywords:** Kisan Credit Card, Agriculture, Development, Cooperative, Landholding

### I Introduction

The introduction of a new credit product called 'Kisan Credit Card' (KCC) in 1998-99 with three different sub-limits productions, assets maintenance and consumption needs is a step in this direction. This brings integration into the multi-credit product system by offering farm entrepreneurs, single line of credit through a single window for multiple purposes. These include acquisition of farm assets, maintenance thereof and meeting families intervening consumption needs. The KCC Scheme was a step towards facilitating the access to short-term credit for the borrowers from the formal financial institutions. The scheme was conceived as a uniform credit delivery mechanism, which aimed at provision of adequate and timely supply of short-term credit to the farmers to meet their crop production requirements. The KCC instrument would allow farmers to purchase agriculture inputs such as seeds, fertilizers, pesticides and also allow them to withdraw some cash for meeting their other crop production related requirements .

Since then, the scheme of KCC is under implementation by State Cooperative Banks (SCBs) through DCCBs and PACS as also the RRBs and Commercial Banks (CBs) under the aegis of NABARD. As on February 2019, about 6.95 farmers were issued KCCs by various banks. Co-operative banks have the largest share (62%), followed by commercial banks (30%) and RRBs (8%). The performance in the implementation of the KCC scheme has been impressive in the states of Andhra Pradesh, Gujarat, Haryana, Karnataka, Maharashtra, Punjab, Rajasthan, Tamil Nadu, Uttar Pradesh and Uttaranchal. The scheme has become popular both amongst farmers and bankers.



It is proper time to assess the socio economic impact of KCC scheme on agriculture sector in general and farmers in particular. The present paper attempts to assess the role of KCC scheme in changes in cropping pattern, investment pattern, income earnings and input uses in agriculture of Western Maharashtra.

## **II Objectives of the Present study**

Following are the main objectives of the present study.

- To study the demographic profile of KCC holder farmers in western Maharashtra.
- To study the occupational and income pattern of KCC holder farmers in study area.
- To assess the land distribution structure of KCC holders in study area.
- To study the agriculture mechanization through KCC scheme in western Maharashtra.

## **III Research Methodology and Data Analysis**

The Pune, Satara, Solapur, Sangli and Kolhapur districts are located in Western part of Maharashtra. The Pune and Kolhapur are more developed than the Solapur, Satara and Sangli districts. The Kolhapur (developed) and Satara (less developed) districts were selected for the present research work. The selected districts are covers 12 tehsils and 11 tehsils respectively. The four tehsils (25%) were selected from each district and from each selected tehsil, five villages with 10 farmers each with given proper coverage of farmers size of land holding and branches of all the three major banking agencies for giving proper coverage of all the banking agencies viz., commercial banks, RRBs and cooperative banks were identified for the detailed study. As on March 2012, a total of 3,27,118 KCCs and amount of Rs. 86947 lakh were issued form Kolhapur district and about same from the Satara of which commercial banks represented (51.98%) followed by cooperative banks (32.46%) and RRBs (15.56%). In order to capture variation at the implementation stage of the scheme, we covered all three major agencies with proper proportions under the study. To assess the farmers' perceptions on KCC, the implementations of KCC on farmers in terms of adequacy and timely availability of credit, a total 400 farmers were selected from Western Maharashtra (200 from Kolhapur and Satara district each) across the selected tehsils and villages with 95% level of significance. The total 400 farmers and some bank officers were interviewed.

## **IV Data Collection and Processing**

Primary data are supported by secondary data for the present study. Bankers were also interviewed to assess the operational advantages and disadvantages of the scheme. Secondary data was collected from the controlling offices of financing bank branches samples, Lead bank, production credit department at Regional offices and Head offices and NABARD Reports etc. Keeping in view the objectives and hypothesis of the study; some appropriate simple statistical techniques such as percentage, average, Growth Rate, CGR, Coefficient of Variation, Standard Deviation, Variance and Correlations were calculated by using computer software like Excel, SPSS for relevant variables.

## **V Demographic Profile of KCC Holder Farmers in Sample Study**

Age structure is one of the most important characteristics of population composition. The usefulness of age data is more noticeable when it is cross classified by variables like marital



status, literacy, educational attainment, economic activity which vary with age in different patterns. India is the second most populous country in the world, with over 1.37 billion people, more than a sixth of the world's population. The age structure of KCC holder farmer respondents gives an idea about nature and an amount of dependent population, and the working force.

A 20 years old respondent was found in the Kolhapur district, he was the youngest KCC holder farmer among the sample families. About 57% of KCC holders were below the age of 40 years it means now-a-days; the youngsters are supervising the agriculture. Kolhapur district is developed as far as the agriculture is concerned and youngsters were not much interested to enter into agriculture as an occupation. The well settled farmers between age group of 40 years to 60 years were not given opportunity to their next generation to supervise the agriculture. The youngsters have been accepted the challenges of modern agriculture in dry regions of the Satara district and the youngsters of irrigated region have been going towards the secondary and territory sectors in Kolhapur district. The maximum KCC holders' age was observed at 38 years. The S.D. and Variance value of age was observed at 11.75025 and 138.068 respectively in Satara district. In brief, a- third KCC holders were below age of 40 years and a youngster of 25 years age was observed in Western Maharashtra in 2014 -15. Out of total, 18.25% farmers were above age of 60 years. The mean value of KCC farmers' age was 49.42 years. The S.D. and Variance value age of KCC farmers was 12.88175 and 165.940 respectively in Western Maharashtra.

There were 38.75% KCC holder's families were nuclear and more than 60% were joint families in the Western Maharashtra. It was observed from sample study that non-irrigated region having more joint families than irrigated or developed region. It indicates that development make the more nuclear families.

Sex ratio in a population is important because it has bearing upon the marriage rate, death rate, birth rate and even migration rate. The sex ratio in sample area was 873 females for 1000 males which is far less than national and state average, it is because of female infanticide, neglect of female infants, early marriages, and death consequent on child birth and bad treatment and hard work for women. In this respect no positive social situation is observed in Western Maharashtra. The average size of family was more than six male-female members and minimum 2 members and maximum 14 members were having in families of sample study. The S.D. and Variance value of size of KCC holder's family was 2.79575 and 7.816 in sample study in Western Maharashtra in 2018-19. India is multi-religion country. About 80 % population has belonged to Hindu religion and rest of under Jain, Muslim, Buddha, and Shikh religions. Out of total KCC holder samples, 93.5 per cent were observed Hindus followed by only 2.75 per cent Muslim, 2.5 per cent Buddhist in Western Maharashtra. Out of total, 91.75% respondents were married followed by 8.25 % respondents were unmarried or widow. The 5.5% and one per cent KCC holders were observed widow and widower respectively in sample families. Furthermore, it was also observed that on an average 82% sample KCC farmers were belong to open category (Open category including Maratha, Brahmin, Jain etc. castes) and remaining 18% were belong to reservation categories. It indicates that the open category especially, Maratha community is dominant in agriculture sector as well as obtained benefits of the institutional finance in the Western Maharashtra.

The educational status of farmers is also very crucial to use institutional finance. The two-third KCC holders were educated up to secondary school and remaining was educated



higher secondary. It was interesting that 18 % graduates practicing agriculture in study region. It indicates that the educated people supervising agriculture in Western Maharashtra.

All the sample KCC holders having their owned house with some required furniture. Averages value of houses of all KCC holders was less than 2 lakhs at current market prices in the study region. A farmer was observed who having house of Rs.9 lakhs in Western Maharashtra. On the others hand, the minimum value of house was observed Rs.15000 of a farmers. The maximum famers were observed with house of Rs. 1.2 lakh only. It indicates the inferior quantity of houses in the study region. The S.D. and Variance value of houses' value was 208513 and 434777937343. It indicates more fluctuations in values of house of KCC holders in Western Maharashtra.

## **VI Occupational and Income Pattern in Western Maharashtra**

Economic development involves occupational, commercialization of agriculture and changes from primary to secondary and tertiary occupations etc. The occupation of the farmers was studied classifying into two main categories as agriculture and agriculture plus others (others enterprises, service and business). Among the beneficiaries more than two-third respondents had agriculture as their main occupation; less than one- third respondents had agriculture plus others. In the case of non-agriculture the percentage of occupation purely dependent on government, private, and co-operative sector, the contribution of these sectors was significant in economy of Western Maharashtra. More interesting is that the cooperative sector has provided about 4 per cent of job opportunities in rural economy. The people serving non agriculture sector has been earning more income with fewer risks.

The maximum sample farmers (28.25%) were earned income of Rs. 50 thousands to 1 lakh followed by 25.75% farmers earned 1.5 lakh to 3 lakhs income in Western Maharashtra. Only 13% and 6.25 % KCC farmers were earned income of Rs. 3.1 lakhs to 6 lakhs and Rs. 6 lakhs to 10 lakhs respectively in Western Maharashtra. Only five farmers (1.25%) were earned income more than 10 lakhs in sample study. In 2018-19, average income earned by farmers from agriculture and allied sector was Rs. 2, 43,645 in Western Maharashtra. A farmer was earned income of Rs. 25 lakhs in Kolhapur district. It was highest or maximum income in the sample study. It was also observed that the Pearson's correlation between sugarcane production and income of the KCC holder farmers is moderate positive correlation (0.516) in sample study.

Agricultural GDP at factor cost is available from the combined outputs of crop and livestock. The contribution of agriculture in total GDP as is known widely is decreasing, and the share of industry and the service sector in the economy is increasing. Growth in agriculture has stagnated towards the end of the 1990s and decelerated thereafter. In this context, the composition of income from agriculture and allied sector of KCC holders in the region has been studied. The study also found that the income from secondary sources has been playing vital role to improve standard of living of sample families in Western Maharashtra. Out of total, more than two-third (68.75 %) respondents were purely dependent on agriculture. Out of remaining, 31.25 per cent, Only 2.25 per cent respondents were having annual income from secondary occupation between Rs. 5,000 to Rs. 60,000 in Western Maharashtra, while about 50 per cent farmers were earned income from secondary occupations in the Kolhapur district. Average income from secondary occupations was Rs. 25247.5 in 2018-19 in the study region. The range of income from the secondary occupations was between Rs. 5,000 to 3 lakhs. About 17.75 % farmers were



earned from Rs. 50,000 to Rs. 3 lakhs and only 5.25% farmers were earned income between Rs. 1 lakh to 3 lakhs in Western Maharashtra. Top 10% KCC holder farmers were earned income more one lakh from secondary occupations in Kolhapur district during 2018-19. It shows expansion of agricultural diversification in western Maharashtra.

The average of income from secondary occupations was Rs. 25247.5 in Western Maharashtra. The S.D. value of the income was observed 50,653.63482. It shows more fluctuations in secondary income of farmers in sample study. The Pearson's correlation between income of the KCC holder farmers and secondary income was observed lesser positive (0.397) in Western Maharashtra.

## **VII Distribution of Landholding in Western Maharashtra**

According to Agricultural Census 2010-11, there were 1.37 crore hectares total operational holdings in the State, of which 1.08 crore hectares operational holdings (78.8 per cent) belonged to marginal farmers with land holding less than or equal to two hectares. The proportion of operational holdings of SCs and STs was 7.5 per cent and 6.3 per cent and their area of operational holdings was 6.6 percent and 7.9 per cent respectively. The average size of land holding of SCs and STs farmers was 1.27 hectares and 1.80 hectare respectively in Maharashtra.

Area of landholding is one of the important aspects of economic development of KCC holders. The cropping pattern has positively changed with the change in the area of landholdings; it becomes stagnant as soon as the area of holding reaches to particular optima. The area of farm is a matter of great importance for attaining certain level of development. It is a pointer to the extent at which the time and resources of the farmers are fully utilized.

Out of total KCC holders, 72.75% were observed marginal and small farmers followed by, 24% were medium size of landholders and remaining 3.25% KCC holders were large farmers in sample study. Average of land size, was observed 2.06 hectare per family in the sample study. Furthermore, the research collected the primary data of perennial irrigated land seasonal irrigated and dry land for detail analysis of KCC holder farmers in western Maharashtra during 2018-19. Out of total respondents, 91% farmers having some irrigated land and amongst them, 38% and 38.5% holders were having the up to 1 hectare and one or two hectares irrigated land respectively in western Maharashtra during 2018-19. The 15.5% farmers were holding 2 to 4 hectares irrigated land. The S. D. value of irrigated land holding was 1.258.

Economy of western Maharashtra has depends upon agriculture sector, but now a day rainfall decreasing due to increasing global warming. Because of this there is effect on agriculture. Therefore, farm ponds, percolation tanks, drip irrigation, sprinkler etc. are the best alternatives to solve scarcity problem and thereby increasing possibilities of sustainable agriculture in Western Maharashtra. Western Maharashtra has been regarded as one of the agriculturally developed areas of the state where livelihood of rural population depend on agriculture. Despite the intra-regional variations in the physic-socio-economic conditions, the region has shown an upward trend in the production.

In Western Maharashtra, out of total respondents, 22.25 %, 33.75 % and 32 % farmers were applied irrigation through Canal, River, and Wells respectively and 10.75 % farmers used water from own tube well for agriculture purposes. The Canal system is very negligible in Kolhapur district due to geographical obstacles. Canal and Rivers are main sources of irrigation



in Satara district on the other hand Rivers and Wells are the prominent source of irrigation in Kolhapur district.

### **VIII Agriculture Mechanization in Western Maharashtra**

The use of tractors and power operated pump sets is labour and time saving and it gives more spare time to farmers to look after other farm activities. Agricultural implements are so closely adjusted to the tractors such as size of holding pump sets, harvester, thresher and irrigation facilities, which mainly control the use of modern machineries. The use of agricultural implements also changes on account of changing socio-economic status of farmers linked with changing cropping pattern and ultimately with economic diversification of the region.

About half of the farmer community were having different types of farm implements, such as plough, tractor and trollies, electric pump set, bullock cart, thresher, sowing machine, cultivator machine, etc. and many farmers having various implements for agricultural activities in the region. The tractor is useful machine which has been used by farmers for many agriculture purposes such as plough, transportation, land leveling etc. Out of the total, one per cent and 9.5 per cent respondents having their own tractor for farm purposes in Satara and Kolhapur district respectively. On the other hand, above 90% farmers have been used tractor from other tractor owners on rental basis for farm cultivation in the region. It clearly indicates even though farmer's having sufficient income but they are not interested to purchase the tractor because of small size of land holding.

In sample study, out of total, one-fourth farmers were used tractor for agriculture and allied activities one or two times in year. Remaining 16.25% and 27.25 % farmers were used tractor on rental basis for three or four time respectively during 2018-19 in the Western Maharashtra. Tractor is modern technology used for improve the productivity of land as well as efficiency of labour. Averagely 2 times to 5 times tractor used on rent by farmers in sample study during in 2018-19. In Western Maharashtra, 94.5% farmers was used tractor for farm cultivation. Among them three-fourth farmers were spent amount up to Rs. 5,000 per year and remaining 12.5% and 6% farmers were paid annually amount between Rs. 5,000 and Rs 7,000 for tractor use in Western Maharashtra. The average of tractor rent paid by KCC holders in the region was Rs. 4082.46 in the same period. The minimum Rs. 200 and maximum amount Rs. 1.2 lakh was used for same purpose in sample study. The S.D. value of rent paid for tractor was 8833.50877 in the Western Maharashtra. It indicates the rent paid for tractor was not much varying in the region during year 2018-19. Furthermore, plough, sowing machine, bullock cart, power tiller thresher, and harvester etc. have been used for agriculture mechanization in western Maharashtra during 2018-19. The use of pump set or electric motor for lifting water for agriculture was observed in sample study. Out of total, 81% farmers were having their won electric motor for this purpose in the study area, while reaming farmers were used irrigation facilities through only canal system.

### **IX Conclusion:**

The performance of the KCC scheme has been impressive western Maharashtra. The scheme has become popular both amongst farmers and bankers; especially farmers from Kolhapur district are more familiar with this scheme. The youngster farmers are taking the benefits of new government scheme as cultivate new crops in the region. But economic development of the region prevents the youngsters' to entre in to agriculture. They are attracted



toward industry and service sectors. The KCC scheme is more benefited to small and marginal farmers with having irrigated land in western Maharashtra. The farmers have minimized credit risk because of the scheme and made available all inputs at proper time of season. The many non-agricultural activities have been taken place by the KCC holder farmers because of availability of working capital for the subsidiary occupation through their agriculture earnings. The study found expansion of agricultural diversification in western Maharashtra. Farmers have invested their extra income into purchasing tractor, thresher, harvesting machine and pipelines etc., which leads to mechanization of agriculture including drip, sprinkler irrigation in the region. Even though some drawbacks the scheme is enormously benefited to the farmers in western Maharashtra.

### References:

- Barik, B. B., (2010), 'Kisan Credit Card Scheme -A Dynamic Intervention for Reduction in Rural Poverty', *International Journal of Marketing and Technology*, Vol.1, No. 2, Pp. 45-53.
- Bell, C. (1990), 'Interactions between Institutional and Informal Credit Agencies in Rural India', *World Bank Economic Review* 4 (3), pp. 297-327.
- Bindage, A. B. Patel, R. Makani, R. M., Sante, P. R. Raut V. P. (2014), 'Economic Evaluation of Kisan Credit Card Scheme for Sugarcane Crop in Kolhapur District of Maharashtra', *Karnataka Journal of Agriculture Science* Vol. 27, No.3, pp. 360-362.
- Bista, Diwas. Raj Mathur V.C. and Pramod Kumar (2012), 'Progress and Performance of Kisan Credit Card Scheme with A Case Study of Bihar', *Agricultural Economics Research Review*, Vol. 25, No.1, January –June, pp. 125-135.
- Chavan, Pallavi and Ramakumar, R. (2007), 'Revival of Agricultural Credit in the 2000s', *Economic & Political Weekly*, Vol. XLII, No. 52, December 29, pp.20-25.
- Kamble, Balaji (2009), ' Role of Kisan Credit Cards in the Benefit of Small Farmers', *Shodh, Samiksha Mulyankan (International Research Journal)* Vol. II, Issue-7 (August).
- Patil, Anna Kaka (2014), 'Progress and Performance of Kisan Credit Kard Scheme in India', *Indian Streams Research, Journal*, ISSN-2230-7850, Impact Factor: 1.7804 (UIF), pp.31-35.
- Patil, Anna Kaka (2015), 'An Economic Assessment of Kisan Credit Card in Maharashtra', *International Research Journal of Commerce, Business and Social Sciences*, Vol.III, Issue 11 (I), February 2015- ISSN- 2277-9310, Pp- 137-140.
- Patil, Anna Kaka (2016), 'Credit Delivery through Kisan Credit Card', Serials Publications, New Delhi.
- Singh, & Sharma, (1999), 'Agriculture Finance and Management', Friends Publications, Meerut.
- Singh, Narendra Pal (2007), 'Role of Kisan Credit Card in Rural Credit Management and Development', *Banking Chintan – Anuchintan*, Oct. - Dec.
- Trivedi, S. (2006), 'Kisan Credit Card: Missing Target', Bhopal, April, 12.