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## **IMPACT OF AGRICULTURAL FINANCE ON INCOME, EMPLOYMENT AND ASSET CREATION OF SAMPLE BENEFICIARIES OF SELECTED DISTRICT CO-OPERATIVE CENTRAL BANK BRANCHES IN CHITTOOR DISTRICT**

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### *Abstract*

*Credit can play a pivotal role in increasing agricultural production and also in improving the level of living standard of the rural households. By credit one means, “ability to command the other’s capital in return for a promise to pay at some specified time in the future”. Thus it is a kind of resource, which provides the opportunity to use additional inputs and capital items especially to the farmers who intend to bring in improvement with their lot. Capital-intensive nature of modern agricultural technology and inadequate savings of the farmers have encouraged the common farmers to go for external finances from different sources, both institutional and non-institutional sources. The DCCB is to develop the agricultural farmers in rural areas and to improve the socio-economic status of the poor farmers in rural areas through providing credit for assets. Credit facilities extended by the DCCBs would enable the borrowers to engage themselves effectively in income generating activities during the post-loan period and the weaker sections in particular would improve their economic conditions. In this paper an attempt is made to analyse the impact of agricultural finance on income, employment and asset creation of sample beneficiaries in the pre-loan and post-loan periods of the DCCB branches in Chittoor district.*

**Keywords:** Cooperative banks, Agriculture, Income and employment, Asset creation.

### **Introduction**

Credit can play a pivotal role in increasing agricultural production and also in improving the level of living standard of the rural households. By credit one means, “ability to command the other’s capital in return for a promise to pay at some specified time in the future”. Thus it is a kind of resource, which provides the opportunity to use additional

inputs and capital items especially to the farmers who intend to bring in improvement with their lot. Capital-intensive nature of modern agricultural technology and inadequate savings of the farmers have encouraged the common farmers to go for external finances from different sources, both institutional and non-institutional sources.

No one can survive without food which is in the hands of a farmer. But Indian farmers

in general are still deprived of good quality of life. Farmers will get due share of honour only when they can lead a dignified life like other section of the society. Many farmers cannot withstand the consequence of crop failure and at times, commit suicide every year in different parts of the country. Most of the farmers are not economically sound enough to take up the benefits of the new technologies. The shortage of cash capital is considered to be one of the basic problems encountered by the farmers and under such situation, it has to be accepted that external finance is a must for any new investment proposal. The life of most farmers have become tougher over time because of increase in the prices of agricultural inputs and increased family expenditure on account of price hike of the essential commodities. Therefore, they are unable to invest on high cost technology in crop field from their own farm income. These are the main reasons for which most of the farmers are looking for alternative economic activities to support their families<sup>1</sup>.

There is an ever increasing need to invest in agriculture due to a drastic rise in global population and changing dietary preferences of the growing middle class in emerging markets towards higher value agricultural products. In addition, climate risks increase the need for investments to make agriculture more resilient to such risks. Estimates suggest that demand for food will increase by 70 per cent by 2050 and at least \$80 billion annual investments will be needed to meet this demand, most of which needs to come from the private sector. Financial sector institutions in developing countries lend a disproportionately lower share of their loan portfolios to agriculture compared to agriculture sector's share of GDP<sup>2</sup>.

The DCCB is to develop the agricultural farmers in rural areas and to improve the socio-economic status of the poor farmers in rural areas through providing credit for assets. Credit facilities extended by the DCCBs would enable the borrowers to engage themselves effectively in income generating activities during the post-loan period and the weaker sections in particular would improve their economic conditions. In this paper an attempt is made to analyse the impact of agricultural finance on income, employment and asset creation of sample beneficiaries in the pre-loan and post-loan periods of the DCCB

branches in Chittoor district.

### Review of Literature

**Gandhimathi's (2012)**, article entitled "Distribution of Agricultural Credit in the Pre-reform and Post-reform Period" showed that the co-operative banks dominated in the total agricultural credit society disbursement in the pre-reform period. The loan outstanding in the direct agricultural credit was higher in co-operatives than in the scheduled commercial banks in the pre-reform period. The dominance of the co-operatives in the agricultural loan disbursement was retained till the year 2004-05. In 2005-06, the direct loan disbursement from scheduled commercial banks was higher than co-operatives banks. The distribution of agricultural credit in the post reform period was significantly higher than in the pre-reform period. The economic reforms of 1991 had been significant on the distribution of agricultural credit.

**G.Prakash and Dr.V.R.Palanivelu (2014)** in their article "A Study on Role of Salem District Central Cooperative Bank in Agricultural Financing with Special Reference to Crop Loan in Salem District" analysed the agricultural financing which greatly contributed to fulfil the capital requirement of the farmers. The borrowers allocated more land to all types of crop compared with non borrowers. The borrowers of this bank were mainly given preference to kissan credit schemes compared with other schemes of crop loans. The bank was placed in a good position in loan distribution and recovery. Timely availability of loan is much important in agricultural financing. This agricultural credit not only to increase the productivity but it helps to expand the economy of the country<sup>4</sup>.

**Dr. Amiya Kumar Mohapatra (2016)** studied on the issue of "Agricultural Credit support for inclusiveness. Agricultural growth depends upon various factors and among them credit is one of the most important. Availability and access to easy credit is indispensable to enhance agricultural production to meet the rising food demand for our growing population and for the supply of raw materials for the industry. Hence the provision of agricultural credit in the union budget is on a continuous rise over the years. It has increased from Rs. 3,75,000 crore (2010-11) to Rs 9,00,000 crore (2016-17), with an increasing rate of more than two times over the period of six years.

Government intends to infuse soft cash credit has increased farmers. Not only that the flow of far credit to considerable but also target interest rate has been reduced from time to time. Also to encourage those who are making timely payments and to reduce the interest burden on farmers, government has made a provision of Rs 15,000 crores as interest subvention<sup>5</sup>.

**Objective of the Study**

The specific objective of the study is to analyse the impact of agricultural finance on income, employment and asset creation of sample beneficiaries in the pre-loan and post-loan periods of the DCCB branches in Chittoor district.

**Sources of Data**

This study is based on both primary data and secondary data. The required primary data for the study are collected through a house-to-house sample investigation on the farmers with the help of a structured schedule of questions and secondary data for the study are collected from DCCBs head office, Chittoor, Andhra Pradesh.

**Sample Design**

Chittoor District in Andhra Pradesh state has been selected as the research area for the present study. Chittoor district has been divided into three revenue divisions namely Chittoor, Madanapalli and Tirupati revenue divisions. It has been observed that there are 31 branches of District Co-operative Central Bank with 9 branches in Chittoor revenue division; 10 branches in Madanapalli revenue division and 12 branches in Tirupati revenue division. Among the 31 branches, 6 branches have been selected randomly by choosing 2 branches from each of three revenue divisions. There are totally 11698 borrowers in the selected 6 branches of Chittoor District Co-operative Central Bank. A sample of 5 per cent i.e., 585 borrowers has been selected randomly by using stratified random sampling with proportional allocation technique. The following table 1 shows the sample borrowers from six selected branches of Chittoor District Co-operative Central Bank in Chittoor District.

**Sample Borrowers from Six Selected Branches of Chittoor District Co-operative Central Bank in Chittoor District**

Revenue Division	Branches	Total No. of Borrowers in Branches	Sample No. of Borrowers	Total No. in Revenue Division	Sample No. in Revenue Division
Tirupati	Tirupati	2403	120	4568	228
	Srikalahasti	2165	108		
Madanapalli	Madanapalli	2274	114	4113	206
	Punganur	1839	92		
Chittoor	Chittoor	2071	104	3017	151
	P.S Gate	946	47		
<b>Total</b>		<b>11698</b>	<b>585</b>	<b>11698</b>	<b>585</b>

Source: Secondary Data (Chittoor DCCB)

**Period of the Study**

The period of study is for 10 years from 2007 to 2016. The primary data pertains to the field of study of the farmers of the three revenue

divisions Tirupati, Madanapalli and Chittoor which was conducted in the year 2015-16. Income generation on the basis of education is presented in table 2.

**Income Generation on the basis of Education**

Revenue Division	Level of Education	Sample Size	Average net Income		Incremental Income Rs.	Percentage of Incremental Income
			Pre-loan Period	Post-loan Period		
Tirupati	Illiterate	61	199956	222754	22798	11.40
	Primary	22	95455	121575	26120	27.36
	Secondary	80	336940	425511	88571	22.64
	College Education	65	207089	243280	36191	17.47
<b>Total</b>		<b>228</b>	<b>839440</b>	<b>1013120</b>	<b>173680</b>	<b>20.68</b>
Madanapalli	Illiterate	51	208992	241623	32631	15.61

	Primary	27	118700	136568	17868	15.05
	Secondary	85	361869	441223	79354	21.92
	College Education	43	184519	231116	46597	25.25
<b>Total</b>		<b>206</b>	<b>874080</b>	<b>1050530</b>	<b>176450</b>	<b>20.18</b>
<b>Chittoor</b>	Illiterate	33	204818	238398	33580	16.39
	Primary	24	108170	134746	26576	24.56
	Secondary	63	355380	435334	79954	22.49
	College Education	31	191492	228032	36540	19.08
<b>Total</b>		<b>151</b>	<b>859860</b>	<b>1036510</b>	<b>176650</b>	<b>20.54</b>

Source: Primary data

Table 2 indicates that in the Tirupati revenue division the incremental income of the samples was Rs.22,798 among the illiterates, Rs.26,120 among those with primary education, Rs.88,571 among those with secondary education and Rs.36,191 among those with college education. The percentage of incremental income was 11.40 per cent among the illiterates, 27.36 per cent among those with primary education, 22.64 per cent among those with secondary education and 17.47 per cent among those with college education. In Madanapalli revenue division the incremental income was Rs.32,631 among the illiterates, Rs.17,868 among those with primary education, Rs.79,354 among those with secondary education and Rs.46,597 among those with college education. The percentage of incremental income was 15.61 per cent among the illiterates, 15.05 per cent among those with

primary education, 21.92 per cent among those with college education and 25.25 per cent among those with college education. In Chittoor revenue division the incremental income was Rs.33,580 among the illiterates, Rs.26,576 among those with primary education, Rs.79,954 among those with secondary education and Rs.36,540 among those with college education. The percentage of incremental income was 16.39 per cent among the illiterates, 24.56 per cent among with primary education, 22.49 per cent along with the secondary education and 19.08 per cent among with the college education. The Percentage of incremental income on the basis of education was higher in Tirupati revenue division when compared to those of Madanapalli and Chittoor revenue divisions. Income generation on the basis of size of farmers is shown in table 3.

#### Asset Creation on the basis of level of Education

Revenue Division	Level of Education	Sample Size	Average net value		Incremental value Rs.	Percentage of Incremental value
			Pre- loan Period	Post- loan Period		
<b>Tirupati</b>	Illiterate	60	223712	274637	50925	22.76
	Primary	22	175669	218956	43287	24.64
	Secondary	80	262785	304753	41968	15.97
	College	66	231324	296434	65110	28.14
<b>Total</b>		<b>228</b>	<b>893490</b>	<b>1094780</b>	<b>201290</b>	<b>22.53</b>
<b>Madanapalli</b>	Illiterate	51	218587	259346	40759	18.46
	Primary	27	160492	201358	40866	25.46
	Secondary	85	293691	336793	43102	14.67
	College	43	176910	238673	61763	34.91
<b>Total</b>		<b>206</b>	<b>849680</b>	<b>1036170</b>	<b>186490</b>	<b>21.95</b>
<b>Chittoor</b>	Illiterate	33	206046	260013	53967	26.19
	Primary	24	159101	201510	42409	26.65
	Secondary	63	299467	354704	55237	18.44
	College	31	198316	242423	44107	22.24
<b>Total</b>		<b>151</b>	<b>862930</b>	<b>1058650</b>	<b>195720</b>	<b>22.68</b>

Source: Primary data

Table 3 shows that in Tirupati revenue division the incremental value of the assets of the illiterate was Rs.50,925, it was Rs.43,287 in the case of those with primary education, Rs.41,968 in the case of those with secondary education and Rs.65,110 in those with college education. In Madanapalli revenue division the incremental value of the assets of the illiterate was Rs.40,759, it was Rs.40,866 in the case of those with primary education, Rs.43,102 in the case of those with secondary education and Rs.61,763 in those with college education. In Chittoor revenue division the incremental value of the assets of the illiterate was Rs.53,967, it was Rs.42,409 in the case of those with primary education, Rs.55,237 in the case of those with secondary education and Rs.44,107 in those with college education. In Tirupati revenue division the percentage of incremental value of the assets was 22.76 per cent of illiterate, 24.64 per cent in the case of those with primary education, 15.97 per cent in the case those with

secondary education and 28.14 per cent in the case of those with college education. In Madanapalli revenue division the percentage of incremental value of the assets was 18.46 per cent of illiterate, 25.46 per cent in the case of those with primary education, 14.67 per cent in the case those with secondary education and 34.91 per cent in the case of those with college education. In Chittoor revenue division the percentage of incremental value of the assets were 26.19 per cent of illiterates, 26.65 per cent in the case of those with primary education, 18.44 per cent in the case those with secondary education and 22.24 per cent in the case of those with college education. The percentage of incremental value of the asset among those with college education was higher in Madanapalli revenue division when compared to those of Tirupati and Chittoor revenue divisions. Asset creation on the basis of size of farmers is presented in table 9.

**Asset Creation on the basis of size of Farmers**

Revenue Division	Size of Farmers	Sample Size	Average net value		Incremental Value Rs.	% of Incremental value
			Pre- loan Period	Post- loan Period		
Tirupati	Marginal	31	148814	199603	50789	34.12
	Small	65	228376	274622	46246	20.25
	Medium	84	250747	302417	51670	20.60
	Large	48	265553	318138	52585	19.80
<b>Total</b>		<b>228</b>	<b>893490</b>	<b>1094780</b>	<b>201290</b>	<b>22.53</b>
Madanapalli	Marginal	25	128153	177182	49029	38.25
	Small	38	162801	210729	47928	29.43
	Medium	79	261026	315926	54900	21.03
	Large	64	297700	332333	34633	11.63
<b>Total</b>		<b>206</b>	<b>849680</b>	<b>1036170</b>	<b>186490</b>	<b>21.95</b>
Chittoor	Marginal	38	163763	214988	51225	31.27
	Small	35	181012	229019	48007	26.52
	Medium	49	242461	294134	51673	21.31
	Large	29	275694	320509	44815	16.26
<b>Total</b>		<b>151</b>	<b>862930</b>	<b>1058650</b>	<b>195720</b>	<b>22.68</b>

Source: Primary data

Table 4 shows that the Tirupati revenue division incremental value of the assets was Rs.50,789 in the case of marginal farmers, Rs.46,246 in the case of small farmers, Rs.51,670 in the case of the medium farmers and Rs.52,585 in the case of large farmers. In Madanapalli revenue division incremental value of the assets was Rs.49,029 in the case of marginal farmers, Rs.47,928 in the case of small farmers, Rs.54,900 in the case of the medium farmers and Rs.34,633 in the case of

large farmers. In Chittoor revenue division incremental value of the assets was Rs.51,225 in the case of marginal farmers, Rs.48,007 in the case of small farmers, Rs.51,673 in the case of the medium farmers and Rs.44,815 in the case of large farmers. In Tirupati revenue division the percentage of incremental value of the assets was 34.12 per cent in the case of marginal farmers, 20.25 per cent in the case of small farmers, 20.60 per cent in the case of medium farmers and 19.80 per cent in the case

of large farmers. In Madanapalli revenue division the percentage of incremental value of the assets was 38.25 per cent in the case of marginal farmers, 29.43 per cent in the case of small farmers, 21.03 per cent in the case of medium farmers and 11.63 per cent in the case of large farmers. In Chittoor revenue division the percentage of incremental value of the assets was 31.27 per cent in the case of marginal

farmers 26.52 per cent in the case of small farmers, 21.31 per cent in the case of medium farmers and 16.26 per cent in the case of large farmers.

The percentage of incremental value of the assets among marginal farmers was higher in the Madanapalli revenue division when compared to those of Chittoor and Tirupati revenue divisions. Asset creation on the basis of occupation is presented in table 10.

#### Asset Creation on the basis of Occupation

Revenue Division	Category of Occupation	Sample Size	Average net value		Incremental Value Rs.	Percentage of Incremental value
			Pre -loan Period	Post -loan Period		
Tirupati	Cultivation	99	144756	172310	27554	19.03
	Cultivation & wage earning	43	179927	209492	29565	16.43
	Cultivation & Allied Activities	36	187206	228019	40813	21.80
	Cultivation & Employment	31	188917	231407	42490	22.49
	Cultivation & Business	19	192684	253552	60868	31.58
<b>Total</b>		<b>228</b>	<b>893490</b>	<b>1094780</b>	<b>201290</b>	<b>22.53</b>
Madanapalli	Cultivation	69	129624	148516	18892	14.57
	Cultivation & wage earning	55	169862	188971	19109	11.25
	Cultivation & Allied Activities	28	178309	210897	32588	18.28
	Cultivation & Employment	33	190217	248693	58476	30.74
	Cultivation & Business	21	181668	239093	57425	31.61
<b>Total</b>		<b>206</b>	<b>849680</b>	<b>1036170</b>	<b>186490</b>	<b>21.95</b>
Chittoor	Cultivation	61	137468	165612	28144	20.47
	Cultivation & wage earning	23	171926	195653	23727	13.80
	Cultivation & Allied Activities	33	181411	199797	18386	10.13
	Cultivation & Employment	19	195715	258178	62463	31.91
	Cultivation & Business	15	176410	239410	63000	35.71
<b>Total</b>		<b>151</b>	<b>862930</b>	<b>1058650</b>	<b>195720</b>	<b>22.68</b>

Source: Primary data

Table 5 shows that in Tirupati revenue division the incremental value of the assets was Rs.27,554, in the case of those who pursued cultivation, Rs.29,565 in the case of those who pursued cultivation and wage earning, Rs.40,813 in the case of those who pursued cultivation and allied activities, Rs.42,490 in the case of those who pursued cultivation and employment and Rs.60,868 in the case of those who pursued cultivation and business. In Madanapalli revenue division the incremental value of the assets was Rs.18,892, in the case of

those who pursued cultivation, Rs.19,109 in the case of those who pursued cultivation and wage earning, Rs.32,588 in the case of those who pursued cultivation and allied activities, Rs.58,476 in the case of those who pursued cultivation and employment and Rs.57,425 in the case of those who pursued cultivation and business. In Chittoor revenue division the incremental value of the assets was Rs.28,144, in the case of those who pursued cultivation, Rs.23,727 in the case of those who pursued cultivation and wage earning, Rs.18,386 in the

case of those who pursued cultivation and allied activities, Rs.62,463 in the case of those who pursued cultivation and employment and Rs.63,000 in the case of those who pursued cultivation and business. In Tirupati revenue division the percentage of incremental value of the assets was 19.03 per cent for those in cultivation, 16.43 per cent for those in cultivation and wage earning, 21.80 per cent for those in cultivation and allied activities, 22.49 per cent for those in cultivation and employment and 31.58 per cent for those in cultivation and business as their occupation. In Madanapalli revenue division the percentage of incremental value of the assets was 14.57 per cent for those in cultivation, 11.25 per cent for those in cultivation and wage earning, 18.28 per cent for those in cultivation and allied activities, 30.74 per cent for those in cultivation and employment and 31.61 per cent for those in cultivation and business as their occupation. In Chittoor revenue division the percentage of incremental value of the assets was 20.47 per cent for those in cultivation, 13.80 per cent for those in cultivation and wage earning, 10.13 per cent for those in cultivation and allied activities 31.91 per cent for those in cultivation and employment and 35.71 per cent for those in cultivation and business as their occupation. The percentage of incremental value of asset among cultivation and business category was higher in the Chittoor revenue division when compared to those of Madanapalli and Tirupati revenue divisions.

### Conclusion

Credit can play an important role in increasing agricultural production and also improving the living standards of farmers in any country. It is proved in this study that credit facilities extended by DCCBs would enable the farmer-borrowers to improve themselves effectively in income generating activities during the post-loan period and that the small farmers in particular would improve their economic conditions. From this study one can find that the percentage of incremental income was high among small size farmers in Chittoor revenue division when compared to those of Tirupati and Madanapalli revenue divisions and at the same time incremental income was high among the cultivation and business category in Madanapalli revenue division when compared

to those of Tirupati and Chittoor revenue divisions. The percentage of incremental man days among illiterate category was higher in the Madanapalli revenue division when compared to those of Chittoor and Tirupati revenue divisions and the percentage of incremental man days among cultivation and business category was higher in Tirupati revenue division when compared to those of Chittoor and Madanapalli revenue divisions. The percentage of incremental value of asset among the farmers in the age group 25-50 years was higher in Chittoor revenue division when compared to those of Tirupati and Madanapalli revenue divisions and at the same time the asset creation on the basis of level of education and the percentage of incremental value of the asset among those with college education were higher in Madanapalli revenue division when compared to those of Tirupati and Chittoor revenue divisions. One can say from this study that DCCBs have been playing a significant role not only as an instrument of economic growth but also influence the people towards social changes by way of adopting new technologies.

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