

# IMPACT OF AGRICULTURAL CREDIT ON EMPLOYMENT GENERATION OF THE FARMERS

Amruth Prasad Reddy\*, Venkata Subbaiah\*\*

\* Assistant Professor, Department Of MBA, Yogi Vemana University Kadapa-516003, Andhra Pradesh

\*\* Bangalore Institute of Management, Bangalore

**Abstract** Agricultural credit is the key factor to accelerate agricultural development in India. The credit needs of the farmers are of three kinds. Firstly, farmers need short-term credit to finance agricultural operations like purchase of seeds, pesticides and fertilizers. Secondly, they need medium-term credit for purchase of ploughs, agricultural equipments, tractors and other implements to cultivate their lands with the help of modern implements. Thirdly, they need it for long-term agricultural development such as improvement of land, construction of boundaries and horticulture. To raise agricultural production, they will have to borrow more credit. This paper studies the impact of agriculture credit on employment generation of farmers by age, education, caste, size, occupation in delta area and non delta area in Nellore district of Andhra Pradesh. 200 farmers who borrowed loans from the bank during 2008-09 are selected randomly from sample branches and pre-tested schedules were canvassed among them. It can be observed that in the delta area the sample branches provided finance to the farmers more than to those in the non delta area. The male beneficiaries are more in number in both the delta and non delta area than female beneficiaries.

**Key Words:** Agriculture credit, education, occupation, employment generation

## INTRODUCTION

The importance of agricultural development in economic development is stressed on the ground that in most countries agriculture is the most popular sector of the economy in their early stages of history. The great single challenge India faces today is whether it can succeed in achieving such a rate of agriculture production as can keep pace with food and other needs of the teeming millions. In a country like India, where nearly 25 per cent of the national income still comes from agriculture, a large part of the surplus required for economic development may be expected to come from agriculture until the stage is reached when industry is able to contribute a major part of the national income. The problem of agricultural development is not only one of meeting the food crisis, but also of contributing to economic development.

Agricultural credit is the key factor to accelerate agricultural development in India. The credit needs of the farmers are of three kinds. Firstly, farmers need short-term credit to finance agricultural operations like purchase of seeds, pesticides and fertilizers. Secondly, they need medium-term

credit for purchase of ploughs, agricultural equipments, tractors and other implements to cultivate their lands with the help of modern implements. Thirdly, they need it for long-term agricultural development such as improvement of land, construction of boundaries and horticulture. To raise agricultural production, they will have to borrow still more credit. And more credit is always needed where there is distribution of the rights on the land. It is thus in the interest of agriculture and general progress, that credit shall be available to farmers in adequate amount and at appropriate costs. As Prof. John D. Black has very rightly said, if we are all concerned about increasing total agricultural output in the shorter time, we must provide credit first and foremost. This will enable farmers to buy more labour saving equipments, more seeds and fertilizers and wells as well as other channels of irrigation and purchase of land. Farmers also need loans for non-agricultural purposes such as repayment of old debts, construction of building and repairs to houses, acquisition of consumer durables, payment of land revenue and meeting expenditure on social customs and litigations. The most important factor regarding the development of Indian agriculture is non-availability of adequate, timely and

cheap finance needed by agriculturists for the purchase of farm inputs and tools.

## CONCEPTS

### Agriculture Credit

Any of several credit vehicles used to finance agricultural transactions, including loans, notes, bills of exchange and banker's acceptances. These types of financing are adapted to the specific financial needs of farmers, which are determined by planting, harvesting and marketing cycles. Generally, credit for agriculture is of two kinds – direct credit and indirect credit. In direct credit, finance is provided directly to the farmers for productive purposes such as crop production, land improvement, irrigation, development of dairy, sheep rearing and fisheries etc., while in indirect credit, finance is provided through institutions involved in the supply of production inputs and other relative services of agriculture.

### Short-term Credit

Short-term or seasonal credit is that which is granted for the purpose of providing working capital requirements of the farmers. The period for which this type of credit is provided generally ranges from 6 months to 15 months. The various purposes for which short-term credit is provided are: purchase of seeds, fertilizers, insecticides, hiring of labour, hire charges of agricultural machineries, payment of electricity bills, tax on land, warehouse charges etc. These Loans are disbursed through primary agricultural credit societies, Commercial Banks and Regional Rural Banks. In such case, security is accepted in the form of anticipated crop production and credit is provided accordingly.

### Medium-term Credit

Medium-term credit is provided to farmers for land improvements, purchase of implements, machinery, livestock, conversion of cultivation system etc. This credit is provided for a period more than 15 months but not exceeding 5 years. The medium term credits are repaid in half-yearly or annual installments.

### Long-term Credit

Generally farmers require all types of credit at various stages. But long-term loans are required for permanent improvements of land, digging tube wells, purchase of large agricultural implements and machinery like tractors, harvesters etc, and repayment of old debts. Long-term loans are granted for a period ranging from 5 years to 20 years.

### Farm Credit

This type of credit is provided for purchase of seeds, fertilizers, insecticides, hiring of labour, purchase of agricultural implements, machinery and livestock, cattle sheds etc. In other words, this credit is provided to support the working capital expenses on farm business.

### Non-farm Credit

This type of credit is provided to meet the working capital expenses on non-farm business such as repairs, transport equipment, furniture, construction and repairs to buildings etc.

### Secured Credit

It is also known as “farm mortgage credit and chattel or collateral credit”. In this type, credit is available against the pledge of some tangible property of the borrower. In fact, the borrower offers livestock produced items, ware house receipts, shares, bonds, insurance policies etc as securities.

### Unsecured Credit

Unsecured Credit is granted on the personal security of the borrower. It is provided on the promissory or personal note of the borrower with or without any other guarantee.

## NEED FOR THE STUDY

Several studies have been made to evaluate the role of institutional finance for agriculture at the national level by individual researchers, financial institutions and the Government. But area-specific studies are comparatively limited in number. Such studies are of great importance on account of the vast, inter-regional variations of bank credit in developing countries like India. Even bank specific studies do not seem to have gone into the different operations of the branches located in remote areas. The present study of Pinakini Grameena Bank in Nellore District of Andhra Pradesh is intended to fill this gap. A detailed analysis was made of the impact of Pinakini Grameena Bank finance on farmer's income, employment, asset creation and repayment performance.

## OBJECTIVE OF THE STUDY

To analyze the impact of agriculture credit on employment generation of the sample beneficiaries under the study area

## Methodology And Sampling

All the 63 branches of Pinakini Grameena Bank, Nellore, are divided into two groups, those serving the farmers in the delta area and those serving in the non-delta area. There are 30 branches in the delta area and 33 branches in the non-delta area. A random sampling of 10 per cent of the total branches i.e., 6 branches in all was taken, representing 3 branches from each group.

200 farmers who borrowed loans from the bank during 2008-09 are selected randomly with probability proportional to the sampling size method (PPS sampling method) from the 6 sample branches and pre-tested schedules were canvassed among them and the relevant data was collected.

## Employment Generation On The Basis Of Age

Employment generation is an important objective of Pinakini Grameena Bank under its special sponsored programmes. The aim is to create more of self-employment than wage employment. Bank finance for agricultural activities led to an increase in cropping intensity in irrigated areas, particularly under labour intensive high-yielding varieties of crops. This resulted in employment generation among the sample beneficiaries in the post-loan period.

Table-1 reveals that in the delta area, the incremental mandays were 14 days for those of the below 20 years age group, 33 mandays for those of the group between 20 and 50 years, and 28 mandays for those of the above 50 years age group. The percentage of incremental mandays was 11.11 for those below 20 years, 12.59 for those between 20 and 50 years, and 11.29 for those above 50 years. In the non-delta area the incremental mandays were 12 days for those below 20 years in age, 28 mandays for those between 20 and 50 years, and 24 mandays for those above 50 years in age. The percentage of incremental mandays was 9.9 for those of the below 20 years age group, 10.72 for those between 20 and 50 years, and 9.79 for those above 50 years in age.

The total number of incremental mandays was 75, and the percentage of incremental mandays was 11.79 in the delta area, whereas it was 64 mandays and 10.20 percent in the non-delta area.

The incremental mandays and the percentage of incremental mandays both were high in the delta area when compared to those of the non-delta area among the age groups.

Table-2 shows that there is a significant difference between pre-loan and post-loan periods among age groups at 5 per cent levels of significance in both the delta and non-delta areas.

**Table-1** Employment Generation on the Basis of Age

Age Group (in years)	Delta area				Non-Delta area			
	Average mandays		Incremental mandays	%age of Incremental mandays	Average mandays		Incremental mandays	%age of In- cremental mandays
	Pre-loan period	Post-loan period			Pre-loan period	Post-loan period		
Below 20	126	140	14	11.11	121	133	12	9.9
20-50	262	295	33	12.59	261	289	28	10.72
Above 50	248	276	28	11.29	245	269	24	9.79
Total	636	711	75	11.79	627	641	64	10.20

Source: Field data

**Table-2** t-test for Employment Generation on the Basis of Age

Category	Mean	N	SD	SE	t-value
Delta Pre-loan	212.00	3	74.81	43.19	4.397*
Delta Post-loan	237.00	3	84.54	48.81	
Non-delta Pre-loan	209.00	3	76.63	44.24	4.438*
Non-delta post-loan	230.33	3	84.88	49.01	

\* 5 per cent level of significance

Source: Compiled from Table-1.

**Table-3** Employment Generation on the Basis of Caste

Caste Category	Delta area				Non-Delta area			
	Average mandays		Incremental mandays	%age of Incremental mandays	Average mandays		Incremental mandays	%age of Incremental mandays
	Pre-loan period	Post-loan period			Pre-loan period	Post-loan period		
Scheduled Castes	229	259	31	13.53	225	253	28	12.44
Scheduled Tribes	121	132	11	9.09	119	128	8	6.72
Backward Castes	214	239	26	12.14	212	235	23	9.78
Forward Castes	72	78	7	9.72	71	75	5	7.04
Total	636	711	75	11.79	627	691	64	10.20

Source: Field data.

### Employment Generation On The Basis Of Caste

Table-3 indicates that in the delta area the incremental mandays were 31 for the

Scheduled Castes, 11 days for the Scheduled Tribes, and 26 days for the Backward Castes and 7 days for the Forward Castes. The percentage of incremental mandays was 13.53 for the Scheduled Castes, 9.09 for the Scheduled Tribes, 12.14 for the Backward Castes and 9.72 for the Forward Castes. In the non-delta area, the incremental mandays were 28 for the Scheduled Castes, 8 days for the Scheduled Tribes, 23 for the Backward Castes and 5 days for the Forward Castes. The percentage of incremental mandays was 12.44 for the Scheduled Castes 6.72 for the Scheduled Tribes, 9.78 for the Backward Castes and 7.04 for the Forward Castes.

The incremental mandays and the percentage of incremental mandays were higher in the delta area than in those of the non-delta area among the caste categories.

Table-4 shows that there is a significant difference between pre-loan and post-loan periods among the different caste groups at 5 per cent level of significance in both the areas.

**Table-4** t-test for Employment Generation on the Basis of Caste

Category	Mean	N	SD	SE	t-value
Delta Pre-loan	135.67	3	72.13	41.64	2.462*
Delta Post-loan	149.67	3	81.94	47.31	
Non-delta Pre-loan	134.00	3	71.69	41.39	2.110*
Non-delta post-loan	146.00	3	81.50	47.06	

\* 5 per cent level of significance.

Source: Compiled from Table-3

### Employment Generation On The Basis Of Education

Table-5 shows that in the delta area the incremental mandays were 28 for the illiterate, 32 days for those with primary education, 10 days for those with secondary education, and 5 days for those with college education. The percentage of incremental mandays was 12.66 for the illiterate, 13.61 for those with primary education, 8.92 for those with secondary education and 7.35 for those with college education. In the non-delta area, the incremental mandays were 25 days for the illiterate, 29 days for those with primary education, 7 days for those with secondary education and 3 days for those with college education.

**Table-5** Employment Generation on the Basis of level of Education

Level of Education	Delta area				Non-Delta area			
	Average mandays		Incremental mandays	%age of Incremental mandays	Average mandays		Incremental mandays	%age of Incremental mandays
	Pre-loan period	Post-loan period			Pre-loan period	Post-loan period		
Illiterate	221	249	28	12.66	219	244	25	11.41
Primary education	235	267	32	13.61	233	262	29	12.44
Secondary education	112	122	10	8.92	110	117	7	6.36
College education	68	73	5	7.35	65	68	3	4.61
Total	636	711	75	11.79	627	691	64	10.20

Source: Field data.

The percentage of incremental mandays were 11.41 for the illiterate, 12.44 for those with primary education, 6.36 for

those with secondary education and 4.61 for those with college education.

The incremental mandays and the percentage of incremental mandays were high in the delta area when compared with those of the non-delta area, in the levels of education categories.

Table-6 shows that there is a significant difference between pre-loan and post-loan periods among the different caste groups at 5 per cent level of significance in both the areas.

**Table-6** t-test for Employment Generation Level of Education

Category	Mean	N	SD	SE	t-value
Delta Pre-loan	159.00	4	81.87	40.94	2.830*
Delta Post-loan	177.75	4	95.08	47.54	
Non-delta Pre-loan	156.75	4	82.25	41.12	2.479*
Non-delta post-loan	172.75	4	95.08	47.54	

\* 5 per cent level of significance

Source: Compiled from Table-5

## Employment Generation On The Basis Of Size

Table-7 reveals in the delta area that the incremental mandays were 35 days for the marginal farmers, 27 days for the small farmers, 9 days for the medium farmers and 4 days for the large farmers. The percentage of incremental mandays was 14.70 for the marginal farmers, 11.94 for the small farmers, 8.41 for the medium farmers and 6.15 for the large farmers. In the non-delta area the incremental mandays were 29 days for the marginal farmers, 26 days for the small farmers, 6 days for the medium farmers, and 3 days for the large farmers. The percentage of incremental mandays was 12.34 for the marginal farmers, 11.65 for the small farmers, 5.66 for the medium farmers, and 4.76 for the large farmers.

The incremental mandays and the percentage of incremental mandays were high in the delta area when compared to those of the non-delta area among farmers of different sizes.

**Table-7** Employment Generation on the Basis of Size of Farmers

Size of Farmers	Delta area				Non-Delta area			
	Average mandays		Incremental mandays	%age of Incremental mandays	Average mandays		Incremental mandays	%age of Incremental mandays
	Pre-loan period	Post-loan period			Pre-loan period	Post-loan period		
Marginal farmers	238	273	35	14.70	235	264	29	12.34
Small farmers	226	253	27	11.94	223	249	26	11.65
Medium farmers	107	116	9	8.41	106	112	6	5.66
Large farmers	65	69	4	6.15	63	66	3	4.76
Total	636	711	75	11.79	627	691	64	10.20

Source: Field data.

Table-8 shows that there is a significant difference between pre-loan and post-loan periods among the size of farmers at 5 per cent level of significance in both the areas.

**Table-8** t-test for Employment Generation on the Basis of Size of Farmers

Category	Mean	N	SD	SE	t-value
Delta Pre-loan	159.00	4	86.16	43.08	2.558*
Delta Post-loan	177.75	4	100.62	50.31	
Non-delta Pre-loan	156.75	4	85.39	42.70	2.390*
Non-delta post-loan	172.75	4	98.70	49.35	

\* 5 per cent level of significance.

Source: Compiled from Table-7

## Employment Generation On The Basis Of Occupation

Table-9 indicates that the incremental mandays were 36 days for those in cultivation 26 days for those in cultivation and wage earning, 9 days for those in cultivation and allied activities, 2 days for those in cultivation and employment, and 2 days for those engaged in cultivation and business.

**Table-9** Employment Generation on the Basis of Occupation

Category of Occupation	Delta area				Non-Delta area			
	Average mandays		Incremental mandays	%age of Incremental mandays	Average mandays		Incremental mandays	%age of Incremental mandays
	Pre-loan period	Post-loan period			Pre-loan period	Post-loan period		
Cultivation	237	273	36	15.18	234	262	28	11.96
Cultivation and wage earning	227	253	26	11.45	222	248	26	11.71
Cultivation and allied activities	111	120	9	8.10	104	109	5	4.80
Cultivation and employment	26	28	2	7.69	30	32	2	6.66
Cultivation and business	35	37	2	5.71	37	40	3	8.10
Total	636	711	75	11.79	627	691	64	10.20

Source: Field data.

The percentage of incremental mandays was 15.18 for those engaged in cultivation, 11.45 for those engaged in cultivation and wage earning, 8.10 for those in cultivation and allied activities, 7.69 for those in cultivation and employment and 5.71 for those in cultivation and business. The incremental mandays were 28 days for those in cultivation, 26 days for those in cultivation and wage earning, 5 days for those in cultivation and allied activities, 2 days for those in cultivation and employment and 3 days for those in activation and business. The percentage of incremental mandays was 11.96 percent for those in cultivation, 11.71 for those in cultivation and wage earning, 4.80 for those in cultivation and allied activities, 6.66 for those in cultivation and employment and 8.10 for those engaged in cultivation and business.

The incremental mandays and the percentage of incremental mandays were high in the delta area when compared to the non-delta area among the categories of occupation.

**Table-10** t-test for Employment Generation on the Basis of Occupation

Category	Mean	N	SD	SE	t-value
Delta Pre-loan	127.20	5	101.27	45.29	2.193*
Delta Post-loan	142.20	5	116.18	51.96	
Non-delta Pre-loan	125.40	5	98.11	43.87	2.197*
Non-delta post-loan	138.20	5	110.86	49.58	

\* 5 per cent level of significance

Source: Compiled from Table-9

Table-10 shows that there is a significant difference between pre-loan and post-loan periods among the occupational categories at 5 per cent level of significance in both the areas.

## CONCLUSION

One of the objectives of Pinakini Grameena Bank is to create more of self-employment rather than wage employment in rural areas. Viewed from this angle, the percentage of

incremental mandays in both areas is low among those who are below 20 years in age and high among those whose age is between 20 and 50 years. Caste-wise, the percentage of incremental mandays is low among those of the Forward Caste and high among the Scheduled Castes in comparison with those of other castes in both areas. Education-wise, the percentage of incremental mandays is low among the college educated and high among the illiterate in both areas. The percentage of incremental mandays is low among large farmers and high among marginal farmers. Occupation-wise in both areas, the percentage of incremental mandays is low among those engaged in both cultivation and business and high among those engaged in cultivation.

## REFERENCES

- Desai, D.K. (1988), "Institutional credit requirements for agricultural production -2000 A.D." **Indian Journal of Agricultural Economics**, Vol. 43, No.3.
- Garg, J.S. Singh, G.N. and Tripathi, R.N., (1978) "An Analysis of Agricultural Financing by Regional Rural Banks in Moradabad of Uttar Pradesh", **Journal of Agricultural Economics**, vol. 23, No.4.
- Gayathri, K. (1993), "Credit Delivery in Rural Karnataka: A case of Chikmangalur District", **Journal of Rural Development**, Vol. 12, No.3.
- Jagadish Prasad and Sunil Kumar (1981-82), A case study of Vyshali Kshetriya Grameena Bank in Mujaffarpur district of Bihar.
- N. Mohsin and R. Jha (1987), Credit repayment performance of beneficiaries financed by Kshetriya Grameena Bank.
- Srivastava, R.N, Singh D.K. and Singh R.P (1981), Champaram Kshetriya Grameena Bank in Bihar State.  
<http://www.investopedia.com/terms/a/agricultural-credit.asp#ixzz1ZGgQTWhi>