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A CRITICAL APPRAISAL OF AGRICULTURAL CASH CREDIT (CROP LOANS) AT ANDHRA PRADESH GRAMEENA VIKAS BANK (APGVB)

(A Case Study of K Agraharam Branch, Narsipatnam, Visakhapatnam District)

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ABSTRACT

The necessity of rural finance was felt to provide protection and reliance to rural people who rely highly on informal sources of finance like moneylenders, landlords, traders etc. who exploit borrowers by charging exorbitant rate of interest and force farmers to sell their product at low price to them. Rural people also face the risk of unpredictable production of crops due to high dependency on monsoon. The problems of finance lead to lack of seeds, fertilizers, water supply and other facilities which result in rural ineptness. Rural banks enhance and improve banking facilities to semi urban, rural and other untapped markets. Rural banks provide finance to the weaker sections of society like small farmers, rural artisans, small producers, rural laborers etc. The banks in rural areas help the farmers in dealing with their financial needs and help in providing secured financial assistance to agriculture in India. The present study focuses on on the appraisal of the Agricultural Cash Credit (Crop Loans) provided by Andhra Pradesh Grameena Vikas Bank (APGVB) in the rural areas of Narsipatnam, Visakhapatnam district of Andhra Pradesh.

KEY WORDS: *Agricultural cash credit , Crop Loans, NPAs, AP Grameena Vikas Bank*

INTRODUCTION

Andhra Pradesh Grameena Vikas Bank aims to accomplish pre-eminence in rural banking with commitment to excellence in customer satisfaction, profit maximization and continued emphasis on developmental banking through a skilled and dedicated work force, by providing training facilities and technological up-gradation. The Bank has set its mission for loaning as "providing timely and adequate credit to carefully selected borrowing community for carrying out lawful economic activities for common betterment". The Loan Policy of the Bank is amended time to time to withstand the test of time with in-built flexibilities and to meet the challenges in the marketplace. The Loan Policy, at a holistic level, is an embodiment of the Bank's approach to sanctioning, managing, monitoring credit risk and aims at making the systems and controls effective.[1] The bank has been playing a lead role in agricultural banking with changing demographics and lifestyles in rural India. The present

research paper focuses on the critical appraisal of the crop loans provided in sixteen villages in Narsipatnam Mandal, Visakhapatnam District.

REVIEW OF LITERATURE

A brief review of the research articles related to the agricultural credit is presented below :

Sharmishta Matkar and Anil Keshav Jadhao (2015)[2] focused on Indian agricultural credit issues and challenges. They found that the flow of investment credit to agriculture is constrained by the factors such as high transaction costs, structural deficiencies in the rural credit delivery system, issues relating to credit worthiness, lack of collaterals in view of low asset base of farmers, low volume of loans with associated higher risks, high man power requirements. They concluded that the credit delivery to the agricultural sector is still not adequate.

Sudha Narayanan(2015)[3] focused on the relationship between formal agricultural credit and agricultural GDP in India, specifically the role of the former in supporting agricultural growth at state level and the productivity of Agricultural credit in India. This paper sought to investigate the relationship between institutional credit to agriculture and agricultural Gross Domestic Product (GDP). Collectively, the results suggest that the fears of credit might be ineffective and perhaps misplaced. There is strong evidence that credit is indeed playing its part of supporting the purchase of inputs and perhaps even aiding the agricultural sector respond to its contextual constraints was concluded in the study on Agricultural credit major and impact of the GDP growth rate on the Nation

Palwinder(2015)[4] focused on India agricultural credit in India, mainly focusing on the issues in agricultural credit, and also what is growth agricultural credit in India. The key problem of agriculture, carried on in far-flung rural areas mostly by poor, small and marginal farmers and weaker section of the society, was credit. Availability of credit was one of the critical inputs for agriculture.

Golait (2007)[5] examined the issues in agricultural credit in India. The analysis revealed that the credit delivery to the agriculture sector continues to be inadequate. It appeared that the banking system is still hesitant on various grounds to purvey credit to small and marginal farmers.

Seen P.C(2015)[6] observed that the credit delivery to the agriculture sector continues to be inadequate. The study had identified crop losses, consecutive failure of monsoon, recurrent drought, mounting debts and land tenancy, as some of the main causes which led many distressed farmers to commit suicide.

R. Uma Devi and S. R. K. Govt(2012)[7] studied Co-operative banks mainly focus on increase in viability and outreach of rural finance, to strengthen implementation capital at all levels for more effective rural finance inventions, to improve MFI monitoring and reporting and impact assessment of rural finance investment. He concluded that the role of Credit Cooperatives is highly impressive and clearly exhibited in the socio-economic development gained by the beneficiaries.

The review of the research articles suggest that inadequate credit facilities was identified as the major problem for rural Finance in India. Hence, the present study is planned to understand the credit facilities provided by APGVB to agriculture and also appraise the percentage of Non-Performing Assets (NPAs) in the agricultural loans provided during 2012-2015.

OBJECTIVES OF THE STUDY

The primary objective of the study is critically appraisal of the agricultural cash credit in Andhra Pradesh Grameena Vikas Bank. Specifically the objectives are :

1. To understand the various types of loans provided by Andhra Pradesh Grameena Vikas Bank
2. To analyze the component of Agricultural loans to total loans disbursed at Andhra Pradesh GrameenaVikas Bank, K Agraharam Branch, Narsipatnam.
3. To evaluate the level of NPAs among the Agricultural loans provided by Andhra Pradesh GrameenaVikas Bank, K Agraharam Branch at Narsipatnam division.
4. To suggest measures to the bank for further improvement of agricultural loans disbursement to farmers in Narsipatnam division.

HYPOTHESIS

H_0: There is no significant difference in NPAs of Agricultural Cash Credit (Crop Loans) among 16 villages under AP Grammena Vikas Bank, K Agraharam Branch.

H_1: There is significant difference in NPAs of Agricultural Cash Credit (Crop Loans) among 16 villages, under AP Grammena Vikas Bank, K Agraharam Branch.

METHODOLOGY

The study is based on the secondary data provided by APGVB, K Agraharam Branch, Narsipatnam, Visakhapatnam District for the years 2012-13, 2013-14 and 2014-15. Other relevant information has been taken from

annual reports of APGV Bank. The study included all the sixteen villages covered under APGVB, K Agraharam Branch. One way ANOVA test is used to assess the differences in NPA levels .

LOANS AND ADVANCES OFFERED BY APGVB

The various loans and advances provided by APGVB are as under[1] :

- House Building Loans to Public
- General Purpose Credit Card
- Agriculture Cash Credits (Crop loans)
- Loans for Education -VidyaVikas
- Poultry Vikas - Broiler Contract Farming
- Rural Housing –Grameena Gruha Vikas
- Personal Loans: Mortgage of immovable property
- SHG Federations
- Financing of Matured SHGs for farm production
- Pensioner Vikas - Loans to Pensioners
- Palamitra Dairy Vikas Scheme
- Laghu Vikas Swarojgar Credit Card
- Mortgage loans for Trade, Industry and Service Sector (SME)
- RythuVikas Chakra - Farm Mechanisation-Tractor loans for farmers

COMPONENT OF AGRICULTURAL CASH CREDIT (CROP LOANS) TO TOTAL LOANS DISBURSED BY APGVB, K AGRAHARAM BRANCH IN NARISPATNAM DIVISION

Component of agricultural cash credit (crop loans) to total loans disbursed by APGVB, K.Agraharam branch in Narispatnam division is presented in Table 1.1

Table 1.1
Component of Agricultural Cash Credit (Crop Loans) To Total Loans Disbursed by APGVB, K Agraharam Branch

(Amount in lakhs)

Name of the village	2012-13		2013-14		2014-15	
	Total Loans	Agricultural Cash Credit	Total Loans	Agricultural Cash Credit	Total Loans	Agricultural Cash Credit
B S peat	119.3	65.8 (55%)	124.1	72.8 (58.6%)	103.8	49.4 (47%)
Burugupalem	114.6	59.3 (51%)	106.4	45.1 (42%)	32.6	15.4 (47%)
Buchinapalem	83.5	39.1 (46%)	89.8	45.6 (50%)	98.1	62.1 (63%)
Chamthapuram	45.2	26.4 (58%)	50.6	28.5 (56%)	44.3	32.6 (73%)
Dalampeata	112.5	68.2 (60%)	120.0	74.6 (62%)	124.2	80.4 (64%)
Koduru	103.2	29.6 (28%)	154.8	68.4 (44%)	62.6	19.4 (30%)
K Agraharm	144.6	44.2 (30%)	152.4	86.1 (56%)	130.0	48.3 (37%)
Latchinapalem	126.2	45.8 (36%)	131.5	58.6 (44.5)	92.8	26.4 (28.4)
Musidipalem	62.0	28.2 (45%)	55.4	30.1 (54%)	72.5	30 (41%)
Paidapala	115.5	65.4 (56%)	120.3	66.4 (55%)	64.5	28.2 (43.7)
Papayyapalem	55.0	30.6 (55%)	62.0	25 (40%)	48.5	29.3 (60%)
P Agharam	88.9	41.4 (46%)	76.8	28.6 (37%)	65.0	45.4 (69%)
Peddipalem	90.0	58.5 (65%)	106.5	62.8 (58%)	124.3	70.3 (56%)
SitanaAgraharam	64.5	39.3 (60%)	122.8	90.4 (73%)	110.7	60.2 (54%)
Venkatapuram	76.5	41.4 (54%)	87.5	45.8 (52%)	90.5	58.4 (64%)
Verapurajupeta	95.4	63.2 (66%)	105.4	65.6 (62%)	140.0	74.1 (52%)
TOTAL	**1496.9 (100%)**	**746.4 (49.86%)**	**1666.3 (100%)**	**894.4 (53.67%)**	**1404.4 (100%)**	**729.9 (51.97%)**

Note : Figures in parenthesis are percentages to total loans

From Table 1.1 it can interpreted that :

a) The agricultural cash credit constituted to around 50% of the total loans disbursed by APGV bank K Agraharm branch during the entire study period.
b) For the year 2014-15, 73% of the loans disbursed in Chamthapuram village are agricultural loans followed by 69% in P Agraharam.
c) For the year 2014-15, only 28.6% of the total loans disbursed are agricultural loans in Latchinapalem village.

AGRICULTURAL CASH CREDIT (CROP LOANS) PROVIDED BY APGVB, KAGRAHARAM BRANCH IN NARISPATNAM DIVISION

The village wise distribution of the Agricultural Cash Credit (Crop Loans) Provided by APGVB, K Agraharam Branch in Narispatnam Division during the Financial Years 2012-13, 2013-14 and 2014-15 is presented in Table 1.2

Table 1.2
Agricultural Cash Credit (Crop Loans) Provided by APGVB, K Agraharam Branch – Village Wise Distribution

(Amount in lakhs)

Name of the village	2012-13	2013-14	2014-15
B S peta	65.8 (11.34)	72.8 (8.1))	49.4 (6.7)
Burugupalem	59.3 (7.9)	45.1 (5.0)	15.4 (2.1)
Buchinapalem	39.1 (5.2)	45.6 (5.0)	62.1 (8.5)
Chamthapuram	26.4 (3.5)	28.5 (3.1)	32.6 (4.4)
Dalampeta	68.2 (9.1)	74.6 (8.3)	80.4 (11.0)
Koduru	29.6 (3.9)	68.4 (7.6)	19.4 (2.6)
K Agraharm	44.2 (5.9)	86.1 (9.6)	48.3 (6.6)
Latchinapalem	45.8 (6.1)	58.6 (6.5)	26.4 (3.6)
Musidipalem	28.2 (3.7)	30.1 (3.3)	30 (4.1)
Paidapala	65.4 (8.7)	66.4 (7.4)	28.2 (3.8)
Papayyapalem	30.6 (4.1)	25 (2.7)	29.3 (4.0)
P PAgharam	41.4 (5.5)	28.6 (3.1)	45.4 (6.2)
Peddipalem	58.5 (7.8)	62.8 (7.0)	70.3 (9.6)
SitanaAgraharam	39.3 (5.2)	90.4 (10.1)	60.2 (8.2)
Venkatapuram	41.4 (5.5)	45.8 (5.1)	58.4 (8.0)
Verapurajupeta	63.2 (8.4)	65.6 (7.3)	74.1 (10.1)
TOTAL	**746.4 (100.0)**	**894.4 (100.0)**	**729.9 (100.0)**

Note : Figures in parenthesis are percentages to column total

From Table 1.2 it can be noted that

a) Out of the total crop loans disbursed in the year 2012-13, 11.3% was given to BS Peta Village followed by 9.1% to Dalampeta.
b) The percentage of crop loans disbursed in BS Peta village has decreased from 11.3% in 2012-13 to 6.4% in the year 2014-15.
c) For the year 2014-15, only 2% of the total cash crop loans are disbursed to Burugupalem village.

NPAs IN AGRICULTURAL CASH CREDIT (CROP LOANS) PROVIDED BY APGVB, K AGRAHARAM BRANCH IN NARISPATNAM DIVISION

The Non-Performing Assets among the Agricultural Cash Credit (Crop Loans) Provided by APGVB, K Agraharam Branch in Narispatnam Division during the Financial Years 2012-13, 2013-14 and 2014-15 is presented in Table 1.3

Table 1.3
NPAS in Agricultural Cash Credit (Crop Loans) Provided by APGVB, K Agraharam Branch

(Amount in lakhs)

Village	2012-13		2013-14		2014-15	
	Loans Disbursed	NPAs	Loans Disbursed	NPAs	Loans Disbursed	NPAs
B S peta	65.8	5.2 (7.90)	72.8	12.4 (17.03)	49.4	8.2 (16.60)
Burugupalem	59.3	8.4 (14.17)	45.1	9.6 (21.29)	15.4	6.8 (44.16)
Buchinapalem	39.1	2.2 (5.63)	45.6	1.1 (2.41)	62.1	1.5 (2.42)
Chamthapuram	26.4	2.3 (8.71)	28.5	1 (3.51)	32.6	1.3 (3.99)
Dalampeata	68.2	6 (8.80)	74.6	4.1 (5.50)	80.4	5.1 (6.34)
Koduru	29.6	0.9 (3.04)	68.4	1 1.46)	19.4	1.4 (7.22)
K Agraharm	44.2	3.3 (7.47)	86.1	4 (4.65)	48.3	4.2 (8.70)
Latchinapalem	45.8	1.4 (3.06)	58.6	1.3 (2.22)	26.4	1 (3.79)
Musidipalem	28.2	2 (7.09)	30.1	1.1 (3.65)	30	0.4 (1.33)
Paidapala	65.4	2.5 (3.82)	66.4	5.4 (8.13)	28.2	1.9 (6.74)
Papayyapalem	30.6	2 (6.54)	25	3 (12.00)	29.3	1 (3.41)
P PAgharam	41.4	2.3 (5.56)	28.6	0.4 (1.40)	45.4	3.1 (6.83)
Peddipalem	58.5	1.1 (1.88)	62.8	0.7 (1.11)	70.3	2.6 (3.70)
SitanaAgraharam	39.3	5.2 (13.23)	90.4	15 (16.59)	60.2	6 (9.97)
Venkatapuram	41.4	2.1 (5.07)	45.8	1 (2.18)	58.4	1.3 (2.23)
Verapurajupeta	63.2	0.7 (1.11)	65.6	2.1 (3.2)	74.1	0.6 (0.81)
TOTAL	**746.4**	**47.6 (6.38)**	**894.4**	**63.2 (7.07)**	**729.9**	**46.4 (6.36)**

Note : Figures in parenthesis are percentages to loans disbursed

From Table 1.3 it can interpreted that :

a) The NPAs in Agricultural Cash Credit (Crop Loans) is between 6%-7% during the study period.

b) For the year 2014-15, around 44% of the agricultural loans disbursed in Burugupalem village turned out to be NPAs for the bank followed by B S peta village (16.6%).

c) For the year 2014-15, only 0.8% of the crop loans disbursed in Verapurajupeta village became NPAs.

d) Throughout the study period, the percentage of NPAs to total loans disbursed to the farmers was high in Burugupalem village.

VILLAGE WISE ANALYSIS OF NPAS AMONG AGRICULTURAL CASH CREDIT PROVIDED BY APGVB, K AGRAHARAM BRANCH, NARSIPATNAM. USING ANOVA TEST

ANOVA test is used to study differences within the samples (here NPAs of each village for 3years) and between the

samples (here the 16 villages in study).

ANOVA test contains the following series of steps that are followed in this study.

Means of NPAs (Agricultural Cash Credit) of all 16 villages for the period of 3 years is calculated

$\bar{X}_1, \bar{X}_2, \bar{X}_3, \bar{X}_4, \ldots, \bar{X}_k$; k = No. of Banks

Mean of means is calculated for K C Cs last 3 years .

Mean of means =

$$\bar{\bar{X}} = \frac{\bar{X}_1 + \bar{X}_2 + \bar{X}_3 + \bar{X}_4 + \cdots + \bar{X}_k}{k}$$

Table shows that Mean of means for NPA for Agricultural Cash Credit are calculated as 6.37% and 5.28% respectively

The next step involves calculating Sum of Squares (SS)for variances between the samples

SS Between =

$$n_1(\bar{X}_1 - \bar{\bar{X}})^2 + n_2(\bar{X}_2 - \bar{\bar{X}})^2 + \cdots + n_k(\bar{X}_k - \bar{\bar{X}})^2$$

In Table , SS Between has been calculated as 1259.09for Agricultural Cash Credit

SS between is followed Mean Square (MS) Between

$$\text{MS Between} = \frac{\text{SS between}}{(k-1)}$$; (k-1) = degree of freedom (d.f) between samples

MS between the samples is calculated as 229.28 for NPAs Agricultural Cash Credit LOANS.

(Table 1.4 and Table 1.5)

Df = k-1 = 16-1 = 15

Similarly SS within and MS within is calculated as bellow

SS within =

$$\sum(X_{1i} - \bar{X}_1)^2 + \sum(X_{2i} - \bar{X}_2)^2 + \sum(X_{ki} - \bar{X}_k)^2 \quad ; i = 1, 2, 3\ldots$$

SS within for Agricultural Cash Credit NPA = 7.16

Mean Square Within = $\frac{\text{SS within}}{n-k}$ ($n = n_1 + n_2 + \cdots + n_k$)

; (n-k) = degree of freedom (d.f) within samples

MS within for NPA = (n =1+2+3+...+16=100); Df = n-k = 100-16 = 80

Finally we calculate F Ratio as

F - Ratio = $\frac{MSbetween}{MSwithin}$

If F-Ratio is d" F Value given in table, then acceptH_0

If F-Ratio is e" F Value given in table, then rejectH_0

Table 1.4 Calculation of Mean Square

Village	2012-13	2013-14	2014-15	sum of sq between	sum of sq within	mean
B S peat	5.20	12.40	8.20	281.84	35.94	16.26
Burugupalem	8.40	9.60	6.80	256.84	5.09	15.82
Buchinapalem	2.20	1.10	1.50	34.15	4.15	3.20
Chamthapuram	2.30	1.00	1.30	36.76	5.39	3.07
Dalampeata	6.00	4.10	5.10	35.76	20.13	10.02
Koduru	0.90	1.00	1.40	58.36	1.13	2.16
K Agraharm	3.30	4.00	4.20	2.23	4.11	7.43
Latchinapalem	1.40	1.30	1.00	52.69	0.48	2.38
Musidipalem	2.00	1.10	0.40	55.57	5.99	2.27
Paidapala	2.50	5.40	1.90	1.12	10.66	5.96
Papayyapalem	2.00	3.00	1.00	24.78	3.73	3.70
P PAgharam	2.30	0.40	3.10	19.11	19.22	4.05
Peddipalem	1.10	0.70	2.60	38.18	10.85	3.00
SitanaAgraharam	5.20	15.00	6.00	259.99	95.87	15.88
Venkatapuram	2.10	1.00	1.30	39.76	4.03	2.93
Verapurajupeta	0.70	2.10	0.60	61.94	2.53	2.03
TOTAL	**47.6**	**63.2**	**46.4**			

Table 1.5 ANOVA Test Results

	ANOVA FOR NPA				
	SUM OF SQ	df	MEAN SQ	F RATIO	Table value 10% level of significance
BETWEEN GROUPS	1259.09	15	83.93	11.71	1.71
WITHIN THE GROUPS	229.28	32	7.16		

F value in the table (F distribution table) for the calculated Dfs for 10% level of significance is 1.71 (Df between the groups is column number and Df within the Groups is the row number)

Here F ratio is 15.59and 11.71for NPA K C LOANS respectively, which are lesser than 1.71. Therefore, we rejected the H_0

SUGGESTIONS

After going through the analysis of the Agricultural Cash Credit and the results of hypotheses testing, the following are suggestions offered to improve the effective management of NPAs of the APGVB.

1. An appropriate credit appraisal system should be adopted by APGVB to avoid the risk of default in the initial stages of credit consideration.
2. Programs to create awareness among the farmers on the importance of banking system and proper repayment of loans, should be conducted by the bank in the villages where there are high percentage of defaulters.
3. The farmers should be encouraged to take agricultural insurance by the bank to avoid defaults in loan repayment due to crop failures.
4. Banks should also provide a platform to give suggestions to the farmers on the type of crop to be cultivated, marketing of crop etc. to empower farmers in the villages.
5. The Government Loan Waiver schemes are also impacting the performance of the rural banks. The RBI should provide specific guidelines to the Governments which are planning to implement Loan Waiver schemes and ensure strict adherence to the guidelines provided.

CONCLUSION

Andhra Pradesh Grameena Vikas Bank is playing a leading role in agricultural banking in Andhra Pradesh. To minimize the NPAs in rural credit, the bank has to adopt the scale of finance for crop loans, for various crops grown locally. The scale of finance should be uniformly adopted by the bank with a view to improve the flow of credit to the agricultural borrowers and meet their credit requirements adequately. All the rural banks in general and APGVB in specific should develop a platform to access loan requirements of farmers, update them with the new trends in agriculture and to give access to quality information which will help in making farmers financially strong and thereby helping the Government in empowering rural India.

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