

# A STUDY ON INDEBTEDNESS OF AGRICULTURAL HOUSEHOLD AND UTILIZATION PATTERN OF INSTITUTIONAL CREDIT ON THE BASIS OF SIZE OF OPERATIONAL HOLDINGS

**ASHIS KUMAR SA**

Research Scholar, Department of Economics, GGV, Bilaspur C.G., Chhattisgarh.  
Email: ashishkumarsa7@gmail.com

**Dr. NAMITA SHARMA**

Associate Professor, Department of Economics, GGV, Bilaspur C.G., Chhattisgarh.  
Email: namitasharma1618@gmail.com

## Abstract

This study examines the debt patterns of agricultural households and their use of institutional credit in different categories of landowners, namely small, marginal, medium, medium and large. The indebtedness of farm households has significant implications for their financial stability, productivity, and overall welfare. By analyzing the different levels of debt and the use of institutional credit, this study sheds light on the financial dynamics of farm households. Preliminary findings suggest access to credit increases as farm size increases, marginal & small farmers need short term credits and large farmers need long term credit. The study examines how farm size affects the level of indebtedness among agricultural households and utilization pattern of Institutional credit.

**Keywords:** Operational Holdings, Agricultural Household, Farm Household, Institutional Credit, Indebtedness

## 1. INTRODUCTION

Indebtedness of farm household is a critical issue that has a significant impact on the financial stability and livelihood of farming communities. The need for supply of formal sources of credit increased since the starting of agricultural reforms that is during green revolution. After this revolution there was an urgent need of credit supply for meeting the expense of costly inputs. Nationalization of banks and creation of RRBs has significantly catered the credit need (Kumar V. , 2021). Understanding the factors that influence the extent of indebtedness is critical for formulating effective policies and interventions to address financial constraints and promote agricultural development (Path, 2008) many work has done for analyzing the factors. But this study focuses on examining the extent of farm household indebtedness, specifically looking at the relationship between indebtedness and farm size. In addition, the study examines the role of institutional credit in meeting the financial needs of farm households. Agricultural holdings, the amount of land used by households for agricultural activities, play a central role in determining the size and productivity of farms.

## 2. REVIEW OF LITERATURE

The size of farms affects the income potential, cropping patterns, and overall financial health of farm households. Therefore, it is critical to examine the relationship between farm size and

debt levels to assess the financial challenges faced by different farming communities. In addition to farm size, availability and access to institutional credit are important factors affecting farm household debt keeping informal credit sources as exploitative in nature (Mandal, Amit & Haldar, Biswajit & Chattopadhyay, Apurba 2015). Adequate access to affordable credit can reduce financial strain, support investment in agricultural activities, and increase productivity (Binswanger, H P and S Khandker, 1995) (Carter, M R and K D Wiebe, 1990) Pitt and Khandker 1996, Narayanan 2016; Luan and Bauer 2016; Kumar et al 2017). Conversely, limited access to credit or reliance on informal sources of credit can lead to increased debt burdens and financial vulnerability (Kumar A. , 2020). (Sajjad H and Chauhan C, 2012) Increasing cost of production and decreasing rate of return and getting low price for the output is the main cause of Indebtedness. (Path B. , 2008) have found that declining profitability in agriculture, increasing commercialization with a weak support system, declining public investment, ineffective and inadequate risk mitigation measures, lack of technologies to reduce costs and increase productivity, input prices, insensitive rural institutions, extremely poor quality and coverage by formal credit institutions, and lack of stringent measures in case of delivery of poor quality inputs and periodic natural disasters are important factors for agricultural indebtedness. Why this study is being conducted is because indebtedness is the root cause of deteriorating condition of small land holders especially in a rain fed area this can be found in the study of (Ramprasad, 2019). In case of debt burden large land holder are having high burden as compare to small land holders. (NABARD, 2018) While talking about number of Indebtedness small and marginal farmers are high in social groups STs, SCs and OBCs are high (Reddy, 2012) (Reetu, 2015).

### **3. OBJECTIVES**

- 1) To analyze utilization pattern of formal sources of credit for agricultural household based on the size of operational holdings.
- 2) To study the prevalence of Indebtedness among Agricultural Household and size of operational land holding.

### **4. RESEARCH METHODOLOGY**

Current study is based on data collected through secondary sources such as data for Institutional credit supply & data for Indebtedness of farm household on the basis of operational holding is collected from Situation Assessment Survey of Agricultural Household by NSO from Ministry of Agriculture and Farmers Welfare, Government of India. Reference period for land possession and indebtedness is as on date of survey that is Jan-Dec 2019 and sometimes reference of Jan-Dec 2013 has been made for Comparison. For Analysis of institutional credit supply input survey year is 2016-17 and three classifications for loan is used that is short term with time period less than 15 months usually taken for agricultural inputs such as seed, fertilizer, labor etc. Medium term is taken for investment such as land improvements, purchasing implement and machinery etc. time is 15 months to 5 year and long term loan is of period more than 5 year for heavy investments. Here Indebtedness relates to all kind of

outstanding loans irrespective of the purpose for which loan are taken. The quantitative data collected is analyzed through the use of descriptive statistics such as percentages, correlations and rate of changes. Definition of the different size of operational holding is taken from Agricultural Statistics at a glance 2022 as mentioned below in table no.1.

**Table 1: Size of land holding for Different Class of Farmers**

Class of Operational Holding	Marginal	Small	Semi-Medium	Medium	Large
Size of Land Possessed (in hectare)	<1.0	1.01 - 2.0	2.01 – 4.0	4.01 –10.0	>10.0

Source: Agricultural Statistics at a glance 2022

## 5. DATA ANALYSIS & INTERPRETATION

### 5.1 Access & Utilization Pattern of Institutional Credit by different Size of Farm House Hold

#### 5.1.1 Access to Institutional Credit

The first objective of the study is to analyze the flow of institutional credit and their utilization pattern to know which size group is availing which type of credit and for what purposes. On the basis of percentage of farm household that took institutional credit based on size group we can interpret the credit access to each class.

**Table 2: Number of Operational Holding That took Institutional credit by different Size Groups**

Size Group	Section- A		Section-B			
	Number of Operational Holding that took Institutional Credit (000 units)		Amount of Institutional Credit Taken (In Lakh Rupees)			
	Total number of Operational Holding	Estimated number of Operational Holding that took Institutional Credit	Short Term	Medium Term	Long Term	Total of Short, Medium and Long Term Credit
Marginal	100098	33806	13752050	3373150	819622	17944822
Small	25772	12616	8392012	2428182	646128	11466322
Semi-Medium	13963	7153	6673044	2055348	755189	9483582
Medium	5538	3068	4257710	1483165	640092	6380967
Large	819	437	890230	276255	174263	1340748
All Class	146190	57080	33965047	9616101	3035293	46616440

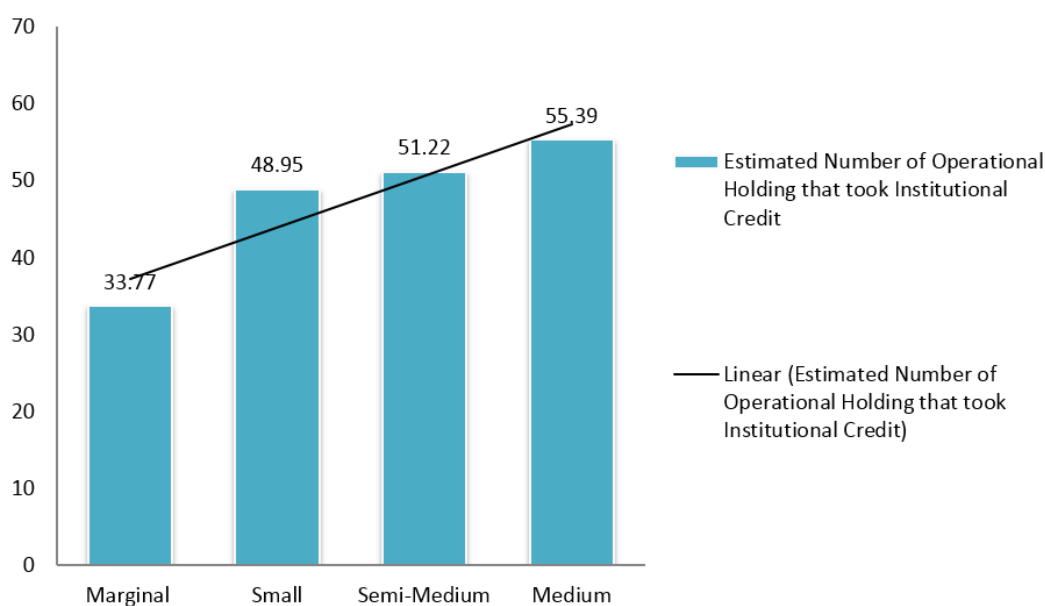
Source: Department of Agriculture and Farmers Welfare (Input Survey 2016-17)

Note-Total May not tally due to rounding off

In the above table no.2 there are two sections, Section-A present total number of operational holding in different size group and number of operational holding that took institutional credit, section B presents the credit taken for different purposes by different size group. We can see that number of farm household that took institutional credit is higher for the small & marginal

farmers because they have greater proportion in total operational holding but percentage analysis says percentage of farmers increases to their corresponding size group which shows that they have higher access to credit that is 33.77%, 48.95%, 51.22% and 55.39% of marginal, small, semi-medium, medium and large farmers are Indebted.

**Figure 1: Percentage of Farmers that took Institutional Credit on the basis of size of operational Holding**



Source: Department of Agriculture and Farmers Welfare

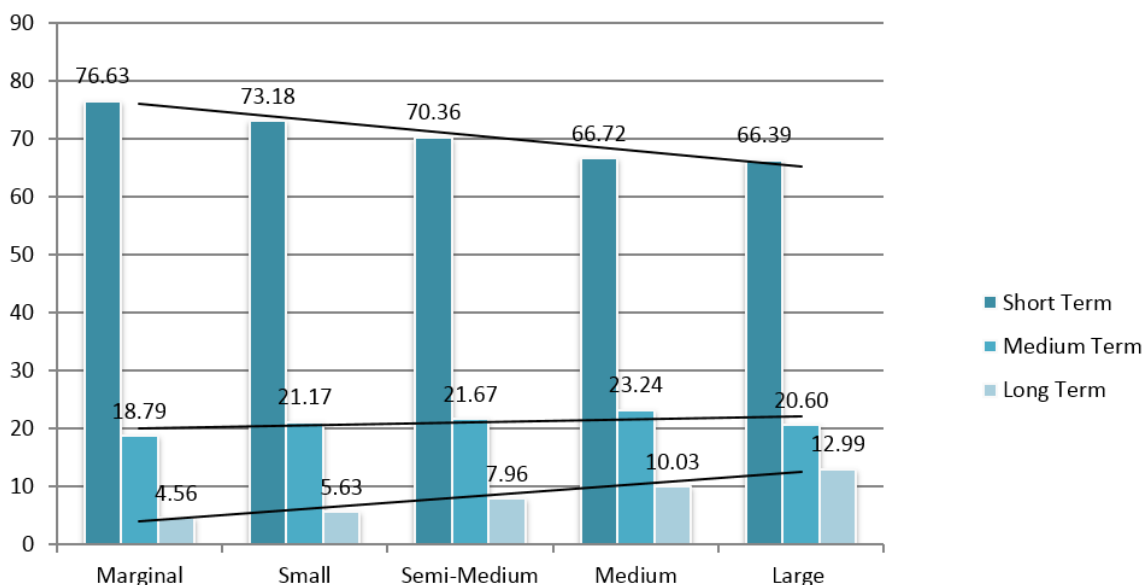
Trend line of figure1 presents percentage of farmers that took institutional credit, this line shows those groups that hold high amount of land are having higher access to institutional credit. That is due to willingness of the bank and low repayment ability of loan of small and marginal group. Other factors are low education rate among small and marginal farmers, complicated process, high transaction cost etc. (Abbas Ali Chandio, Yuansheng Jiang, Abdul Rehman, Martinson Ankrah Twumasi, Amber Gul Pathan, Muhammad Mohsin, 2021)

### 5.1.2 Utilization Pattern of Institutional Credit

The types of credit shows us that how the farm house hold is utilizing the credit, in other words for what purposes such as if any particular group is availing more short term credit that means those group are taking credit for short term use such as for seed, fertilizer for labor expenses. Here in table2 such group is marginal farmers, they don't have resistance power for long term borrowings. In Section B of Table2 represents the credit taken for different purposes by different size of farm household i.e. short term, medium term and long term credit. As the size of farm household increases ability to finance short term expense such as seed, fertilizer & other input is high therefore short term credit taken by the large farmers is 66.39% to their total

credit and the same for marginal farmers 76.63%. Inverse in the case of long term credit, large farmers need for long term credit is high because there is a direct correlation between land holding and long term investment capacity. In case of medium term credit is more preferable for every class of farmer especially medium size farmers are more comfortable. The purpose for which credit taken are improvement in land, machinery etc.

**Figure 2: Total Institutional Credit taken for different Agricultural Purposes on the basis of time by Size-Groups**



Source: Department of Agriculture and Farmers Welfare

## 5.2 Indebtedness of Agricultural House Hold

### 5.2.1 Prevalence of Indebtedness among different size group

The following table no.3 representing the data about number and percentage distribution of farm household to different size groups. Estimated number of Indebted Agricultural Household and percentage distribution of indebted farm house hold to total and their corresponding group. And average amount of outstanding loan availed by different size of farm household.

**Table 3: Indebtedness of Agricultural Households (all-India) in Different Size Classes of Land Possessed**

Size Group	Estimated Number of Agricultural household (In Lakhs)	% of Farmers to Total in Each Class	Estimated Number of Indebted Agricultural Household (In Lakhs)	% Distribution of Indebted Agricultural Households	% of Indebted Agricultural Households to their corresponding class	Average Outstanding Amount of Loan
Marginal	655.79	70.44	292.8	62.7	44.64	35229
Small	164.83	17.71	94.56	20.2	57.4	94498
Semi-Medium	80.37	8.63	56.01	12.0	69.7	175009
Medium	26.46	2.84	20.97	4.5	79.3	326766
Large	3.49	0.37	2.84	0.6	81.4	791132
All India	930.94	100.00	467.20	100.0	50.2	74121

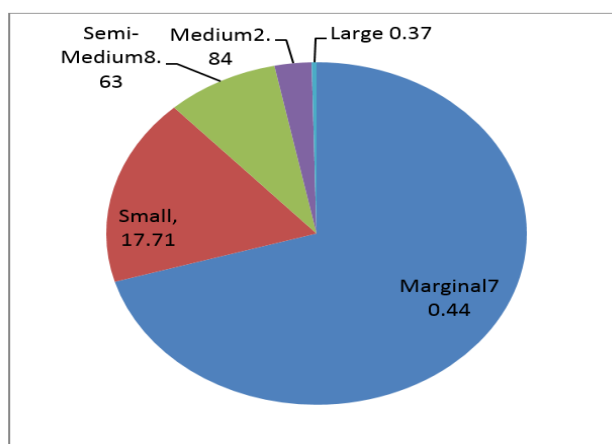
Source: Situation Assessment Survey of Agricultural Households (Jan-Dec 2019), National Statistical Office (NSO)

Note: 1 Reference period for land possession and Indebtedness is "as on the date of survey"

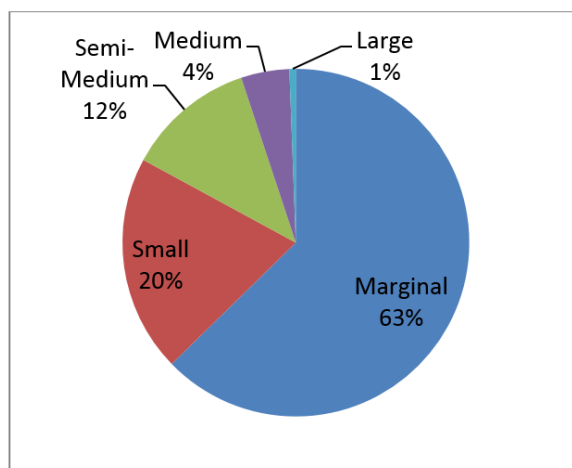
2 Indebtedness relates to all kind of outstanding loans irrespective of the purpose for which taken

Percentage of farm household in different size group and percentage of household that are indebted in each size group is shown in pie chart 1& 2 respectively. There we can see out of the total farm household all India 70.44% are marginal farmers land holding below 1ha as holding size increases the number of farm household decreases and in pie chart 2 out of the total indebted farm household 63% indebted farmers are marginal as the size of holding increases percentage of indebtedness is also increasing that is out of total farmer 0.37% are large farmers but out of total indebted farmers 1% farmers are indebted. This distribution was with reference to total number of farm house hold.

**Pie Chart 1: Percentage of Agricultural household In Different Size Group**



**Pie Chart 2: Percentage Distribution of Indebted Agricultural Households in Different Size Group**



Source: Department of Agriculture & Farmers Welfare

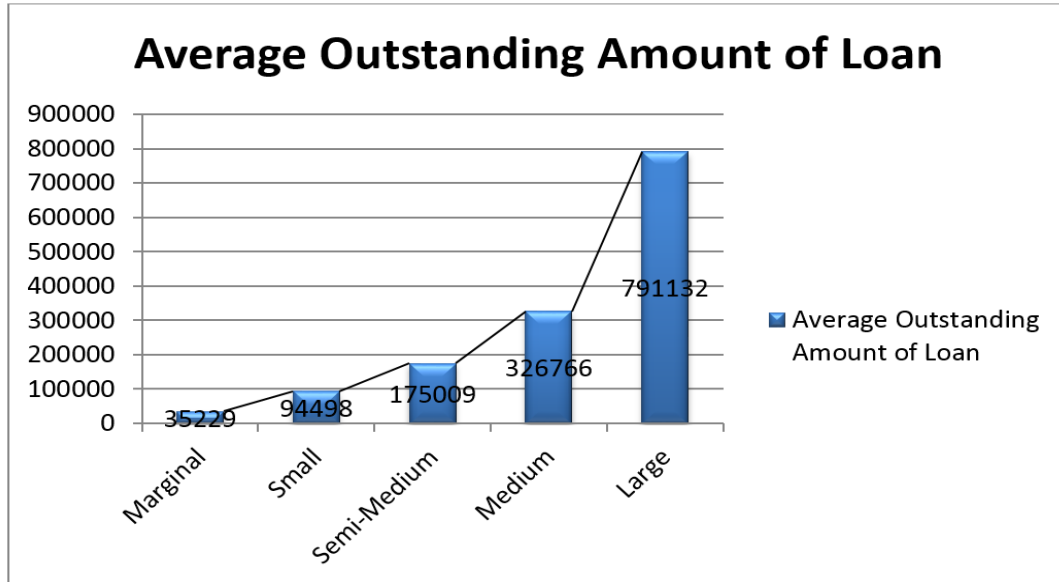
Percentage of indebted farmers with respect to their corresponding class actually reflects the condition of farmers of different size group. However relation found between percentage of farm household and percentage of indebted farm household is as same as percentage of indebted farmers to their corresponding size. But relation found with later one is showing the depth of the Indebtedness. That is 70.44% farmers are marginal to total and out of total indebted farmer 63% are marginal. But out of total marginal farm house hold 44.54% are indebted in the same sequence as the land holding size increases size of percentage of indebted farmers to the corresponding size group.

### 5.2.2 Average outstanding amount of loan for different size group

Average outstanding amount of loan is the amount of credit hold by each farmer in an average mentioned in the last column of table3 is shown in figure 3. Here the same kind of result found as we found in the previous section. As the land holding size of farmers' increases, the amount of outstanding loan also increases. An average amount of outstanding loan is 35229 for a marginal farmer, 326766 is for medium farmer and 791132 for a large farmers. One more important point to note is the rate of growth is very high because of high declining rate in number of indebted farm household.



**Figure 3: Average outstanding amount of loan by different size group**



Source: Department of Agriculture & Farmers Welfare

## 6. FINDINGS & CONCLUSION

By the above study it can be noted here that marginal and small farmers have lower access to institutional credit and higher access as the farm size increases there are many factors influencing formal credit access such as education, experience, asset holding capacities etc. and land is one of them. Secondly short term credit are used highly by marginal and small farmers for expenses like seed, fertilizers and other inputs, whereas large farmers need long term credit because they can afford short term expenses without borrowings they need credit for large investments such as purchasing of land, machinery and land improvement. Percentage of indebtedness increases as land holding size increases showing higher access to credit along with outstanding amount of loan.

### References

1. Abbas Ali Chandio, Yuansheng Jiang, Abdul Rehman, Martinson Ankrah Twumasi, Amber Gul Pathan, Muhammad Mohsin. (2021). Determinants of Demand for Credit by Small Holder Farmers a Farm level Analysis Based on Survey of Sindh Pakistan. *Journal of Asian Business and Economics Studies*, 28(3), 225-240.
2. Binswanger, H P and S Khandker. (1995). The Impact of Formal Finance on the Rural Economy of India. *Journal of Development Studies*, Vol. 32(No 2), 234-262.
3. Carter, M R (1989): "The Impact of Credit on Peasant Productivity and Differentiation in Nicaragua," *Journal of Development Economics*, Vol. 31, No 1, p.p. 13-36.
4. Carter, M R and K D Wiebe. (1990). Access to Capital and Its Impact on Agrarian Structure and Productivity in Kenya. *American Journal of Agricultural Economics*, Vol. 72(No.5), 1146-50.



5. Kumar, A. (2020, July 21). Access to credit in Eastern India- Implication for the wellbeing of Agricultural Household. *epw.in*, 55(21).
6. Kumar, V. (2021). Trends and Patterns in Agriculture Credit in India: A District Level Analysis of Uttarpradesh. Mumbai: National Bank for Agricultural and Rural Development.
7. Luan, D X and S Bauer (2016): "Does Credit Access Affect Household Income Homogeneously across Different Groups of Credit Recipients? Evidence from Rural Vietnam." *Journal of Rural Studies*, Vol. 47, Part A, p.p. 186–203.
8. Mandal, A. &. (2015). Farmer Indebtedness and Land Holding Patterns in West Bengal.
9. NABARD. (2018). NABARD All India Rural Financial Inclusion Survey . National Bank for Agricultural and Rural Development, Department of Economic Analysis & Research.
10. Narayanan, S (2016): "The Productivity of Agricultural Credit in India," *Agricultural Economics*, No 47, No 4, p.p. 399–409
11. Path, B. (2008). Agricultural indebtedness: Crisis and revival. *Economic and Political Weekly*, 43(5), 47–52.
12. Path, B. V. (2008). Agricultural Indebtedness: Crisis and Revival. *Economic and Political Weekly*, 47-52.
13. Ramprasad, V. (2019). Debt and vulnerability: Indebtedness, institutions and smallholder agriculture in South India. *The Journal of Peasant Studies*, 46(6), 1286-1307.
14. Reddy, A. (2012). Structure of indebtedness of households in semi-arid tropics of India. *Agriculture Research and Review*, 25, 473-483.
15. Reetu. (2015). Agricultural Indebtedness in India:A comparative analysis of NSSO 59th and 70th Round. *International Journal of Multidisciplinary Research and Development*, 2(9), 565-571.
16. Sajjad H and Chauhan C. (2012). Agrarian distress and indebtedness in rural India: Emerging perspectives and challenges ahead. *Journal of Geography and Regional Planning*, 5(15), 397.
17. Schwartz, S. &. (1990). Toward a theory of the Universal Content and Structure of Values:Extensions and Cor-Cultural Replications. *Journal of Personality and Social Psychology*.
18. Agricultural Statistics at a glance 2022  
[https://agricoop.nic.in/Documents/CWWGDATA/Agricultural\\_Statistics\\_at\\_a\\_Glance\\_2022\\_0.pdf](https://agricoop.nic.in/Documents/CWWGDATA/Agricultural_Statistics_at_a_Glance_2022_0.pdf)