



## An Economic Analysis of Rural Indebtedness of Farmer House Holds: A House Hold Study in Davangere District of Karnataka

**Anneshi R**

Research Scholar, Department of Studies in Economics, Davangere University Shivagangothri Davangere

**Dr. N.K. Gowda**

Professor and Dean, Department of Studies in Economics, Davangere University Shivagangothri Davangere

### KEYWORDS

#### Background of the study

Indian peasant is born in debt, lives in debt and dies in debt (Darjaling 1929). Today many of the farmers die not in debt but commit suicide due to debt. Indebtedness has long been treated as distress phenomenon. It is indeed so if the debt taken is not used for productive purpose or creation of assets that augment the earning base of the borrowers and instead is used for consumption purposes or marriages and social ceremonies. Debt can also become a distress phenomenon if the borrowers' crop fails due to natural calamities or drought or other unforeseen reasons or if production becomes uneconomic because of high input costs, stagnant technology and lack of remunerative prices which make it impossible for the farmers to repay his loan and interest. Finally, and this is quite common, interest becomes a heavy liability if the loan is taken from non-institutional sources at high rates of interest. The accumulated liability of principal and compound interest can become crippling and the borrower is forced to mortgage or sell his land losing thereby his only many of livelihood. In some cases, indebtedness and failure to play can become one of the important causes for farmers' suicides.

In recent years the cost of production of various crops has been increasing at much faster rate than the rate of increase in the productivity. Due to declining profitability, the loans obtained for investment in machinery irrigation structure, fertilizers and agrochemicals were partly spent for their bare subsistence and for fulfillment of their social obligations. Consequently, they were made to avoid fresh loans from non-institutional agencies at higher rate of interest to pay back the old dues. Therefore, the economic factors like decreasing productivity, falling Profits and the social factors like Consumerism heavy expenditure on social ceremonies have pushed the farmers into debt trap.

It has been observed about indebtedness is one of the major factors responsible for farmers' suicides and the agrarian crisis in the country. According to the NSSO (2005) data as many as 48.6 per cent of farmer households are indebted in the country. Indebtedness is highest in Andhra Pradesh (82 per cent), followed by Tamil Nadu (74.5 per cent), Punjab (65.4 per cent), Kerala (64.4 per cent), Karnataka (61.6 per cent) and Maharashtra (54.8 per cent). The study found that in Haryana, Rajasthan, Gujarat, Madhya Pradesh and West Bengal, 53 percent of farmer households were indebted. States with very low percentage of indebted households were Meghalaya, Arunachal Pradesh and Uttaranchal (less than 10 per cent). Of an estimated 4.3 million indebted farmer households, 2.4 million were in Karnataka.

The average amount of outstanding loan per farmer was the highest in Punjab at Rs. 41,576 against the national average of Rs. 12,585 followed by Kerala (Rs.33, 907), Haryana (Rs. 26,007) and Andhra Pradesh (Rs.23, 965) and Karnataka (Rs.18, 135). Borrowing in the farming season and returning the principal with interest at the time harvest is routine activity most commonly fol-

lowed by farmers over the centuries (NSSO, 2005a).

The inability to repay the past debts and therefore to access fresh loans has been widely accepted as the most significant proximate cause for the farmers' suicides that were so widespread in Andhra Pradesh and Karnataka and are apparently continuing in areas as Wayanad in Kerala, Vidarbha in Maharashtra and some areas of Punjab and Rajasthan.

The facts show that suicides were not just individual action alone but driven by certain socio-economic pressure either sudden or accumulated. The causes for suicides are 'multi factorial, interlinked and progressive'. It is also clear that suicides cannot be just attributed to mental depression, as depression does not descend from the sky. Various socio-economic factors together contribute for mental depression" (Vidyasagar and Suman Chandra, 2004).

It is clear from the above that the people are driven to the extreme step of suicide not only because of imprudently large borrowing from high cost source and for non-predictive uses fully below expectations. It emphasis the need for the study on the indebtedness profile of the farmers households.

In recent Years the demand for agricultural credit has been increasing tremendously. The government at all the levels have been making efforts to meet the growing credit needs of the farmers through its formal agencies, informal agencies continue to be attractive largely extend credit for consumption and social ceremonies and their interest and other terms and conditions of loans onerous and yet they can exist with the formal financial institutions mainly due to their proximity, feel-at-ease timely and quick service, all time access, purpose free credit, flexibility in loan repayment and low transaction costs informal sources of credit care not only consider but also exploitative, but nature of exploitation varies from one region to another and also they vary from one crop to another.

Debt repaying capacity of the farmers is declining over the years. Further, repaying behavior as well as credit utilization pattern is also changing in these days. Therefore, incidence and also the extent of indebtedness among the farm families are increasing. Many empirical studies reported that indebtedness and other risk factors are mainly responsible for increasing farmers' suicide rate in the recent year particularly in the states like Karnataka, Andhra Pradesh and Maharashtra. In Karnataka, next to Haveri, maximum number of Suicide cases has been reported from Davangere district. In this back drop the present study has been undertaken with following specific objectives

1. To study the sources of borrowing for different categories of farmers.
2. To ascertain the factors influence the indebtedness of

farmers in Davangere District.

**Sources of Data**

It is basically a farm household level study. Primary data have been collected from the farm households for the empirical verification of the hypotheses formulated for this study.

Stratified random sampling procedure has been used for choosing the farm households. In the first stage four taluks of Davangere district have been randomly selected. In the second stage two villages have been randomly selected. In the third stage 15 farm households have been randomly selected from each village. Post enumerative stratification of the respondent into small farm (1-5 ha) and large farmers (> 5 ha) has made. Thus from each taluk 30 respondents for the district as whole 120 respondents have been selected.

**Analytical Techniques**

The data were analyzed by using appropriate statistical or econometric techniques. The techniques employed in the study are summarized below.

- 1) Tabular analysis: was adopted to compare institution Non-institutional sources and outstanding debt of the different farm size category. 't' test was applied to test the significance of the difference
- 2) The Chi-Square (c2) test was used to examine the degree of association between expenditure on health, education, marriage, house construction, cost of crop tube well digging.

$$c^2 = \sum \frac{(O_i - E_i)^2}{E_i}$$

Where

O<sub>i</sub> = Observed frequency

E<sub>i</sub> = Expected frequency,

[(Colum total) \*(Row total)] / [grand total]

To draw the inference calculated c<sup>2</sup> value was compared with table value at (r-1) \* (c-1) degrees of freedom where, r & c represent the number of rows and columns respectively. If the calculated value is greater than the table value at the pre-determined level of probability, then the association between the variables considered being statistically significant.

- 3) Average or percentage: were used to compute the different farm house holds & level of outstanding loans and or average or percentage terms.

**RESULTS AND DISCUSSION**

The results of the study are presented and discussed in this chapter. The entire chapter is developed based on the objectives specifically set for the purpose of this study. Inferences are carefully drawn considering the hypotheses being set in the study. Methodological aspects were given due care while fabricating and analyzing the entire chapter.

The average amount borrowed from Institutional and non-institutional sources during 20014-15 by the farmers belonging to different farm size category is given in table 5.1; small farmers borrowed Rs. 63,134 during 2014-15 out of which Rs. 16,522 (26.17%) was from institutional sources and the remaining 46612 was from non-institutional sources. Thus small farmers depend more on non-institutional sources compared to institutional sources.

Large farmers have borrowed Rs. 148,670 during 2014-15, out of which the 66500 was from institutional sources and the remaining 82170 was from non-institutional sources. Thus large farmers are also depends on the Non – institutional sources. But the extant of dependence on non-institutional sources is less among large farmers (55.25%) compared to small farmers (73.83%). In order to test the significance of the difference between institutional and non-institutional sources't' test was made there is significant difference be-

tween institutional and non institutional sources of borrowing According to the results of the present study 't' value was found to be statistically significant. Thus it could be inferred that there is significant difference in the borrowing from institutional and non –institutional borrowing among small farmers and overall size category.

**Table – 5.1**  
**Source-wise borrowing by the respondents during 2014-15**

Sl. No.	Farm size category	Institutional	Non-institutional	Total	t-value @
1	Small farmers	16522 (26.17%)	46612 (73.83%)	63134 (100%)	2.551*
2	Large farmers	66500 (44.73%)	82170 (55.27%)	148670 (100%)	0.556
	Total	38596 (38.05%)	62840 (61.95%)	101436 (100%)	1.895**

Source: Field Survey

Note @ t values b/w Institution and & Non-Institutional borrowings

\* And \*\* indicate significance at 1 & 5 percent probability level.

Source wise outstanding debt among different categories of farmers is given in table 5.2. Among SC/ST category, small farmer owed an outstanding debt Rs. 45357, out of which 6710 (14.79%) was from institutional sources and the remaining 38647 (85.21%) was from non-institutional sources. Thus small farmers depend more on non-institutional sources compared to institutional sources. Large farmers owed an outstanding debt of Rs. 76215 out of the 14786 (19.40%) was from institutional sources and the remaining 61429 (80.60%) was from institutional sources, thus large farmers are also depends on the non-institutional sources.

Among the other category, small farmers owed an outstanding debt of Rs. 78139, out of which Rs. 26750 (34.23%) was from institutional sources and the remaining 51389 (66.77%) was from non-institutional sources. Thus small farmers owed more outstanding debt to non-instructional sources compared to institutional sources. Large farmers have owed an outstanding debt of Rs.188616, out of which the 100667 (53.37%) was from institutional sources and the remaining 87945 (46.63%) was from non – institutions sources. Large farmer owed more debt to Institutional sources compare to non-institutional sources.

Among SC/ST category small and large farmers depend more on non – Institutional sources among other category, small farmers owed more outstanding debt to non-institutional sources. But large farmers owed more of outstanding debt to institutional sources.

**Table – 5.2**  
**Source-wise outstanding debt among different categories**

Categories	Farm Size	Institutional	Non-Institutional	Total
SC/ST	S.F	6710 (14.79%)	38647 (85.21%)	45357 (100%)
	L.F	14786 (19.40%)	61429 (80.60%)	76215 (100%)
	Total	9222 (16.78%)	45733 (83.22%)	54955 (100%)
Others	S.F	26750 (34.23%)	51389 (65.77%)	78139 (100%)
	L.F	100667 (53.37%)	87949 (46.63%)	188616 (100%)
	Total	65187 (48.08%)	70400 (51.92%)	135587 (100%)
	Over all category	44200 (41.96%)	61150 (58.04%)	105350 (100%)

(Source: Field Survey)

Outstanding debt and health expenditure level wise distribution of respondents is given in the table 5.3 Out of 120 respondents, 91 respondents were belonged to below average expenditure farm families and another 29 respondents were belonged to above average expenditure farm families. Out of 91 below average expenditure farm household's respondents 36 (39.56%) and 28 (30.76%) farmers had low and medium level of outstanding debt respectively and 27 (29.67%) of below average expenditure farmers respondents had high level of outstanding debt. Out of 29 above average expenditure farmers, 5 (17.24%) and 8 (27.58%) farmers had low and medium level of outstanding debt. Highest percentage of above average expenditure family's respondents 16 (55.17%) has high level of outstanding debt. It clearly shows that above average expenditure farm family's families are having higher level of outstanding debt. The calculated Chi-square value (7.272) found to be significant at 5% probability level therefore It could be inferred that there is associations between expenditure on health and level of outstanding debt.

**Table - 5.3**  
**Association between the level of Indebtedness and major Expenditure on Health**

Health expenditure	Level of outstanding debt				$\chi^2$
	Low	Medium	High	Total	
Below average	36 (39.56%)	28 (30.76%)	27 (29.67%)	91 (100%)	7.272**
Above average	5 (17.24%)	8 (27.58%)	16 (55.17%)	29 (100%)	
Total	41 (34.16%)	36 (30%)	43 (35.83%)	120 (100%)	

(Source: Field Survey)

Note: \*\* indicates significance at 5 per cent probability level

Households with tube well failure and outstanding debt level wise distribution of respondents is given in the table 5.4. Out of 120 respondents, 18 respondents' tub well failure and another 102 respondents' tube wells not failed. Out of 18 tube well failure farmers, 1 (5.55%) and 5 (27.77%) farmers had low and medium level of outstanding debt respectively and 12 (66.66%) of tube well failure farmers had high level of outstanding debt. Out of 102 tube well not failure farmers, 40 (39.21%) and 31 (30.39%) farmers had low and medium level of outstanding debt. Highest percentage of tube well not failure farmers 31 (30.39%) have high level of outstanding debt. It clearly shows that families with tube well failures had high level of outstanding debt. The calculated chi-square value (10.727) found to be statistically significant at 1 percent probability level. Therefore it could be inferred that there is associations between tube well failure and level of outstanding debt.

**Table - 5.4**  
**Association between the level of Indebtedness and Tube well failures**

Tube well failure	Level of outstanding debt				$\chi^2$
	Low	Medium	High	Total	
Tube well failure	1 (5.55%)	5 (27.77%)	12 (66.66%)	18 (100%)	10.727*
Tube well not failure	40 (39.21%)	31 (30.39%)	31 (30.39%)	102 (100%)	
Total	41 (34.16%)	36 (30%)	43 (35.83%)	120 (100%)	

(Source: Field Survey)

Note: \*indicates significance at 1 per cent probability level

**Conclusion:**

Both small and large farmers borrowed relatively higher proportion from the non-institutional sources compare to institutional sources. However, large farmer from institutional sources (44.73%) compared to the small farmers (26.17%) thus, accessibility to institutional borrowing is relatively more for large farmers. Among the SC/ST category, both small and large farmers owed more outstanding debt to non-institutional sources, compare to institutional sources. Only 24.44 percent of SC/ST farmer's had high level of outstanding debt but among other farmers it was 42.66 percent have high level of outstanding debt. It clearly shows that other caste farm families are having higher level of outstanding debt. Only 29.67 percent of the farm households with below average expenditure level had high level of outstanding debt but it was 55.17 percent among the households with above average expenditure level. It clearly shows that families with above average expenditure level on health are having higher level of outstanding debt. 66.66 percent of the farmers with tube well failure had high level of outstanding debt. Where only 30.39 percent with is respect the families without any tube well failure.