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RESEARCH ARTICLE

AN ECONOMIC ANALYSIS OF FARMERS' INDEBTEDNESS AND SUICIDE: A CASE STUDY OF DAVANGERE DISTRICT OF KARNATAKA

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ARTICLE INFO	ABSTRACT		
Article History:	Agriculture in Karnataka is plagued by many problems; like lack of credit facilities, lack of marketing facilities, lack of incentives, lack of transport facilities, lack of scientific price, rural indebtedness		
Received 15 th September, 2015	which make it impossible for the farmers to repay his loan and interest. And this is quite common;		
Received in revised form 21 st	interest becomes a heavy liability if the loan is taken from non-institutional sources at high rates of		
November, 2015	interest. The accumulated liability of principal and compound interest can something become		
Accepted 06 th December, 2015	crippling of the borrower in forced to mortgage on sell his land losing thereby their only mean of		
Published online 28 st	livelihood. In some cases, indebtedness and failure to pay can become one of the important causes for		
January, 2016	farmers' suicide Radhakrishna 2007). To compare the extent of indebtedness among the farm families		
	with suicide incidence and other farm families in Davangere district selected for analysis. large		
Key words:	farmer from institutional sources (44.73%) compared to the small farmers (26.17%) thus, accessibility		
Institutional and Non Instituional debt,	to institutional borrowing is relatively more for large farmers. Among the SC/ST category, both small		
Category wise outstanding debt, Crop	and large farmers owed more outstanding debt to non-institutional sources, compare to institutional		
failure, Asset position and Income level.	sources. 66.66 percent of the farmers with crop failure had high level of outstanding debt. Where		
	only 30.39 percent with is respect the families without any crop failure.		

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INTRODUCTION

Background

Indian peasant is born in debt, lives in debt and dies in debt (Darling 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 barrowers 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 something become crippling and the borrower is forced to mortgage or sell his land losing thereby his only means of livelihood. In some cases, indebtedness and failure to pay can become one of the important causes for formers suicides (Radhakrishna 2007).

A popular peasant saying that "abundance of water destroys life; paucity of water destroys life" signifies agriculture's link with monsoon. The vagaries of nature have been associated with ups and downs in cultivation. In addition, disease and pests can also affect crops. When the produce is good, a glut in the market can through low prices lead to poor returns from cultivation. Increasing cost can also adversely affect returns. Spurious inputs could also leave the farmer in a quandary. The increasing dependence on inputs from the market has also brought about greater demand for credit, which adds another important dimension to the difficulties. There are multiple risks in agriculture-income, yield, price, input and credit among others.

In recent years one observes an increasing incidence of farmers' suicides. Suicide being a multifaceted and complex phenomenon, the risks are identified either in the neurobiological or socio-economic domain. The farmers are predisposing in nature and are internal to the individual whereas the latter are precipitating are external to the individual. A relatively higher suicide among a particular subgroup is indicative of a larger socio-economic malaise. The

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features of the current agrarian crisis are briefly elaborated as follows. Fist, there has been a decline in the trend growth rate of production as well as productivity for almost all the crops from the mid-nineties. Further, the value of output from agriculture has been declining from late nineties. Second, there is an excessive dependence of a large section of the population on agriculture (in 2004-05 nearly 64 per cent of the rural persons were from households whose members major activity status was either self-employed in agriculture or agricultural labour). This also indicates that rural non-farm employment opportunities are limited. Third, with declining size-class of holding and an increasing preponderance of marginal holdings (63 per cent as per 2000-01 agricultural census) along with poor returns from cultivation indicates that income for farm households is very low. Fourth, the much talked about green revolution had a greater focus on rice and wheat under irrigated condition bypassing crops and regions under rain fed or dry land conditions (which is three-fifths of the 141 million hectares of net sown area in the country during 2003-04). There has been a failure to capitalize on the vast network of institutes to provide and regulate new technology (including the usage of biotechnology), and a virtual absence of extension service. Fifth, the neglect of agriculture in plan resource allocation has led to a decline of public investments in irrigation and other related infrastructure. Sixth, supply of credit from formal sources to the agricultural sector is inadequate leading to greater reliance on informal sources at higher interest burden. Last, but not the least, with changing technology and market conditions the farmer is increasingly being exposed to the uncertainties of the product as well as factor markets (Srijt Mishra 2006).

The Green revolution of the 60s brought to the Indian Farmer prosperity. In many regions the high yielding varieties of crops were used and the result was a dramatic increase in production. One of the failures of the green revolution though was that the efforts put in were restricted to very few varieties of crops. The lessons learnt were not used for research in other crops and for the benefit of the farmers in all parts of the country. The liberalization policies of the government on the early nineties open the doors of the nation for Multi-National Companies from around the world. The fragile Indian Agricultural setup that was based on monsoons and a host of other conventional setup suddenly found itself exposed to never-heard-of revolutionary technologies and agricultural methodologies.

The farmer was shown the lucrative results of the new seeds and the new methods and every help was given to him to shift from the conventional seeds and techniques to the new revolutionary genetically modified varieties. Little did they know that they we entering a vicious circle. Within a few years, the conventional seeds were lost. The support that flowed freely in the beginning dried up. And the promising seeds proved to be not so promising.

On the other front, the nation was rapidly globalizing putting aside the concerns and the needs of the agrarian society the government that helped the farmer during crisis started changing course. And the nation watched the rising Indian Industry. While all of this happened, the Indian farmer was left with fewer choices to survive with dignity. This triggered a chain of suicides throughout the nation. For the benefit of our readers we will try to highlight the major reasons for the increase in suicides. A combination of all these factors is destroying the Indian small farm household (Rajat, 2008).

The foraging 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 'multifactorial, interlinked and progressive'. It is also clear that suicides cannot be just attributed to mental depression, as depression does not descend from the sky. "The various socio-economic factors to gether contribute for mental depression of farmers" (Vidyasagar and 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 (Vaidyanathan 2006). It emphasis the need for the study on the in debtedness profile of the farmers households.

REVIEW OF LITERATURE

Review of the literature on the related field of study enables the researcher in identifying the gaps in the field of research, developing the analytical framework and interpretation of the findings. Some of the important studies concerned to the area of the study.

Kareemulla (2008), reported that per ha. Credit flow increasing in Uttar Pradesh and India as a whole, the level of credit in the state is lower at three fourths that of the country. This is partially attributable to lower banking network and higher indebtedness in Uttar Pradesh. Considering the fact that UP accounts for over 20 percent of the countries agricultural production, there is a need to augment the credit flow to the sector in this state. However, the major impediment, as it appears is the level of indebtedness among the farmers in the state coupled with this default of loans caused by crop failure and diversion of funds for non productive purposes acts as the stumbling block in the smooth flow of credit to agriculture. Therefore, aggressive measures to widen the crop insurance coverage and proper credit follow up by the institutional agencies are essential for rejuvenating agricultural credit system in Uttar Pradesh.

Jeromi (2007), In their Study Conducted in Kerala revealed that following trade liberalization and also due to a host of other factors like deficient rainfalls excessive concentration on export oriented perennial crops, decline in production and productivity, fall in prices etc. the agricultural sector of the state has been facing a crisis during the last one decade it led to rise in farmers' indebtedness and suicides. While farm distress continued, there was significant rise in loans issued by formal financial institutions. In general farmer's suicide was reported more in those districts which are concentrating more on cultivation of export- oriented commercial crops. Agricultural crisis was one of the major reason for suicide, but not the sole reason. Most farmers who committed suicide had land holding below one acre and average loan liability was Rs 72,000. Besides this, many farmers had private borrowings from friends and relatives. Their inability to repay these loans (liquidity) is considered as the proximate reason (trigger point) for committing suicide.

Radhakrishana (2007), Stated that the farmers indebtedness has long been treated as a distress phenomenon. It was indeed so if the debt taken was not used for productive purposes like purchase of inputs that augment out put on creation of assets that augment the earning base of the borrower and instead was used for consumption purposes or marriages and social ceremonies debt can also become a distress phenomenon was the barrowers crops fails due to natural calamities, drought, use of spurious inputs, in fructuous investments 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 farmer to repay his capital and interest, finally, and this is quite common, interest becomes a heavy liability if the loan was taken from non institutional sources like money lenders at high rates of interest. The accumulated liability of principal and compound interest can sometimes become a crippling. And the borrowers is forced to mortgage or sell his land losing there by his only means of livelihood, in some cases, indebtedness and failure to pay can become one of the important causes for farmers suicides.

Narasimha and Suri (2006), mentioned in his article that the indebtedness was not new to rural Andhra Pradesh. While Suicides due to indebtedness are what forces farmers to take their lives is not the amount of debt per se, but the changed nature of agriculture involving high costs and low or negative returns the changed nature of politics has largely removed the farmers from the policy arena and led to their increasing immiserrisation.

Mohanakumar and Sharma (2006) linked the agrarian Crisis and farmer's distress in Kerala to the neoliberal policy regime implemented in the country in the recent past. The association between the two is more in the regions of the state that are heavily dependent on export –oriented crops such as coffee and pepper the worst effected were the small farmers as they were more Vulnerable to crop losses and price declines. Unless the plight of farmers is addressed in term of changing the Macro policies regulating taxes, prices and imports, the condition of the farmers cannot be improved on a sustainable basis either by increasing the availability of institutional credit or providing some alleviatory sops to the victims of suicide families.

Srijit Mishra (2006), studied an agrarian crisis has precipitated a spate of suicides in Maharashtra, the suicide morality rate for farmers in the state has increased from 15 in 1995 to 57 in 2004. The rain dependent cotton growing farmers of Vidarbha are faced with declining profitability because of dumping. In the global market by the U S, low import tariffs, failure of the monopoly Catton procurement scheme and withdrawal of the state (resulting in the public investment in agriculture, poor government agriculture extension services and the diminishing role of formal credit institutions). The farmer now depends on the input dealer for advice, leading to supplier induced demand , and on informal sources of credit , which result in a greater interest burden in short, the farmer is faced with yield, price. Credit, income and weather uncertainties. The way out is to merge bold public policy initiatives with civil society engagement.

Narayanamoorthy and Kalamkar (2005), explained that the significant increase in crop output per hectare of land as well as increased availability of institution credit to agriculture since the introduction of green revolution, the problem of indebtedness has been continuing among the farmer house hold in India and also studied the trends and determinants of the incidence as well as extent of indebtedness among the farmer households mainly using the data available from the NSSO report (no. 498 59th Round, Jan -Dec 2003) on indebtedness of farmer households. The study shows that the incidence of indebtedness (proportion of households reporting debt). The results showed from the study that, out of all, about 18 per cent in Assam to 82 percent in Andhra Pradesh in the year 2003 while the incidence of indebtedness is found to be higher among the agriculturally advanced states like Andhra Pradesh, Punjab, Tamil Nadu, Karnataka and Haryana during same year.

Vijayakumari (2005), analysed the major factors causing indebtedness in ruler areas of Northern Telangana zone. They showed that the Lack of technical knowledge, declining irrigation facilities, increasing biotic and non-biotic, lower crop yields and form income Burden of higher family expenditure were the major causes for indebtedness.

Narayana Moorthy and Kalamkar (2005), Found that there are many reasons for the persistence of indebtedness among the farmers households in India. First, since the agricultural activities are typically seasonal and heavily dependent upon monsoon rain fall, the return from the crop cultivation is not assured most of the time which ultimately affects the repaying capacity of the farmers. Second through the distribution of institutional credit for agricultural purpose has increased manifold in India since the nationalization of banks, substantial numbers of farmers still rely on non institutional sources (money lenders and others), where the rate of interest is not only exorbitant but the terms and conditions of the loan are often exploitative (see, Raamachandran and swaminathan 2001, NABARAD, 2001, although et al. 1990). Third, the domination of middlemen in agriculture produce market, which prevents from getting remunerative prices for their the farmers produce, is also considered to be one of the main reasons for the indebtedness. Four, majority of the farmers also take loans for consumption as well as for a variety of social obligations, which are unproductive and do not help to generate income. As the surplus income generated through crop cultivation is not assured and often are in adequate, the farmers unable to repay the loan in time and thus the burden of debt goes on increasing.

Sukhpal singh and Toor (2005), Analyzed that the agrarian Crisis with special reference to indebtedness among Punjab farmers. The purpose for which a loan is taken is an imported indicator of its potential for repayment. The various purposes for which different farm categories were taking loans an average farm house in the state incurred a debt Rs, 37,913 (41.03 percent) and Rs. 54,481 (52.97percent) for productive and un productive purposes respective the highest debt was

reported on unproductive purposes like marriages, social ceremonies, family maintenance and health care. The same trend has been seen for different categories of farm house holds, the marginal farmers incurred the highest in the proportion (71percent) of their debt on unproductive purpose followed by small farmers, medium formers semi-medium farmers and large sized farmers As the farm size increased the proportion of debt on the un productive purposes decreased except in the case of medium farmers .The small marginal and semi medium farmers incurred the highest proportion of their debt on family maintenance health care and education of their children while medium and large farmers spent the highest proportion of their loan for celebrating marriages of their children and for purchasing farm machinery the marginal farmers did not spend any amount of loan. On purchasing farm machinery and developing irrigation structure on the farm. Because of their small farm size of less than 2.5 acres, of land. But the large farmers have mechanized their farmers and incurred the highest (26.60percent) amount on these items, out of which tractor and its implements were the main components.

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 (Deshpande, 2002) 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 Further, repaying behavior as well as credit the years. 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.

- To compare the extent of indebtedness among the farm families with suicide incidence and other farm families.
- To suggest the remedial measures to minimise the extent of indebtedness and suicide among farm families.

METHODOLOGY

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. Farm families with suicide incidence have been selected through the purposive sampling procedure. Stratified random sampling procedure has been used for choosing the other 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 20 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.

Table 1Source-wise outstanding debt as on 31st March2015

2010						
Sl. No.	Source	F Size Category	N.S.F	S.F		
		S.F	16522	11583		
1	T.,	5.F	(26.17%)	(32.21%)		
1 Institution	Institutional	L.F	66500	7188		
			(44.73%)	(21.38%)		
		Total	38595	9825		
2	Non-	S.F	46612 (73.83%)	24375 (67.79%)		
2	² Institutional L.	L.F	82170 (55.27%)	26438 (78.62%)		
		Total	62316	25200		
3 ,	Total	S.F	63134 (100%)	35958 (100%)		
	Total	L.F	148670 (100%)	33625 (100%)		
		Total	211804 (100%)	69584 (100%)		

Source: Field Survey

Table 2 Outstanding debt of different farmhouse holds

Land holding	Level of Outstanding Debt				
size	Low Medium High		High	h Total	
Small	28 (41.79%)	24 (35.82%)	15 (22.38%)	67 (100%)	11.
Large	13 (24.52%)	12 (22.64%)	28 (52.83%)	53 (100%)	947 **
Total	41 (34.16%)	36 (30%)	43 (35.83%)	120 (100%)	

Source: Field Survey

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

 Table 3 Category wise outstanding Debt

	Le	+2				
Categories	Low	Low Medium High Total				
SC/ST	20	14	11	45		
	(44.44%)	(31.11%)	(24.44%)	(100%)		
041-0	21	22	32	75	7.045**	
Others	(28%)	(29.33%)	(42.66%)	(100%)		
Total	41	36	43	120		
Total	(34.16%)	(30%)	(35.83%)	(100%)		

(Source: Field Survey)

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

 Table 4 Association between the level of Indebtedness and Crop failure

Cuon foilum	Level of outstanding debt				+2
Crop failure	Low	Medium	High	Total	ι
Crop foilured	1	5	12	18	
Crop failured	(5.55%)	(27.77%)	(66.66%)	(100%)	
Crop not	40	31	31	102	10.727*
failured	(39.21%)	(30.39%)	(30.39%)	(100%)	10.727*
Total	41	36	43	120	
Total	(34.16%)	(30%)	(35.83%)	(100%)	

(Source: Field Survey)

Note: *indicates significance at 1 per cent probability level

Thus from each taluk 40 respondents for the district as whole 160 respondents have been selected. In addition to the above,

40 farm households with suicide incidence have been purposively selected. Information on suicide incidence in the district has been collected from the district commissioner office.

Table 5 Asset Position of the respondents and
Indebtedness

A	Level of Indebtedness				+2
Asset Position	Low	Medium	High	Total	ι
Below average	26	21	9	56	
	(46.42%)	(37.5%)	(16.07%)	(100%)	19.1123
Above average	15	15	34	64	
	(23.43%)	(23.43%)	(53.13%)	(100%)	19.1123
Total	41	36	43	120	
	(34.16%)	(30%)	(35.83%)	(100%)	

(Source: Field Survey)

Note: *indicates significance at 1 per cent probability level

 Table 6
 Annual Income of the respondents and

Annual Income	Low	Medium	High	Total	t²
Below average	34	23	10	67	
	(50.74%)	(34.33%)	(14.92%)	(100%)	
Above average	7	13	33	53	31.65816*
	(13.20%)	(24.52%)	(62.26%)	(100%)	
Total	41	36	43	120	
	(34.16%)	(30%)	(35.83%)	(100%)	

(Source: Field Survey)

Note: *indicates significance at 1 per cent probability level

RESULT AND DISCUTION

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.

Source wise outstanding debt as on 31st March 2015, among the farm families with suicide incidence and without any suicide incidence is given in the table 1., Among the nonsuicide cases small farmers owed outstanding debt, 63134, out of which 26.17 (16522) percent of amount owed outstanding debt was from the institutional sources, and remaining 73.83 (46612) percent of amount owed outstanding debt was from the non-institutional sources. Among the suicide cases, small farmer owed outstanding debt of Rs, 35958, out of which 32.21 (11583) percent of amount owed outstanding debt was from the institutional sources, and remaining 67.75 (24375) percent of amount owed outstanding debt from non-institutional sources. Both Non-suicide and suicide cases of small farmers, owed more outstanding debt on non-institutional sources compare to institutional sources.

Among the non-suicide cases, large farmers owed outstanding debt of Rs. 148670, out of which 44.73 (66500) percent of amount owed outstanding debt was from the institutional sources, and remaining 55.27 (82170) percent of amount owed outstanding debt was from non-institutional sources.

Among the suicide cases large farmers owed outstanding debt of Rs. 33,625 out of which 21.38 (7188) percent of amount owed outstanding debt was from the institutional sources, and remaining 78.62 (26438) percent of amount owed outstanding debt from non-institutional sources. Both non suicide and suicide cases, small and large farmers owed more outstanding debt on non – institutional sources compare to institutional source

Details about the level of outstanding debt among the farmers of different farm size category are given in table 2. Out of 120 respondents, 67 respondents were belonged to small farm size category and the remaining 53 respondents were belonged to large size category. Based on the outstanding debt owed to different sources, farm household have been classified in to the households with low, medium, and high level debt. Out of 67 small size category farmers, 28 (41.79%) and 24 (25.82%) farmer's had low and medium level of outstanding debt respectively and only 15(22.38%) small farmers had high level of outstanding debt. Out of 53 large farmers, 13 (24.52) and 12 (22.64%) farmers had low and medium level of outstanding debt. Highest percentage of large farmers 28 (52.83%) have high level of outstanding debt. It clearly shows that large farm families are having higher level of indebtedness. The calculated chi-square value (11.947) found to be significant at 5% level probably therefore it could be inferred that there is association between farm size and level of outstanding debt. Thus, it could be inferred that the outstanding debt level is more among large farmers compared to small farmers.

Caste and outstanding debt level wise distribution of respondents is given in the table 3. Out of 120 respondents, 47 respondents were belonged to SC/ST category and the remaining 75 respondents were belonged to others category. Out of 45 SC/ST category farmers, 20 (44.44%), 14 (31.11%) farmer's had low and medium level of outstanding debt respectively and only 11(24.44%) of SC/ST farmer's had high level of outstanding debt. Out of 75 other farmers, 21 (28%), and 22 (29.33%) farmers had low and medium level of outstanding debt. Highest percentage of other farmers 32 (42.66%) have high level of outstanding debt. It clearly shows that other farm families are having higher level of outstanding. The calculated Chi-square value (7.045%) found to be significant at 5% level probably therefore it could be inferred that there is an association between caste category and outstanding debt.

Households with crop failure and outstanding debt level wise distribution of respondents is given in the table 4. Out of 120 respondents, 18 respondents' crop failure and another 102 respondents' crop not failured. Out of 18 crop failure farmers, 1 (5.55%) and 5 (27.77%) farmers had low and medium level of outstanding debt respectively and 12 (66.66%) of crop failure farmers had high level of outstanding debt. Out of 102 crop not failure farmers, 40 (39.21%) and 31 (30.39%) farmers had low and medium level of outstanding debt. Highest percentage of crop not failure farmers 31 (30.39%) have high level of outstanding debt. It clearly shows that families with crop failures had high level of outstanding debt. The calculated chisquare value (10.727) found to be Statistically significant at 1 percent probability level. Therefore it could be inferred that there is associations between crop failure and level of outstanding debt. Asset position of the farm households and outstanding debt level wise distribution of respondents is given

in the table 5. Out of 120 respondents, 56 respondents' were belonged to below average asset position farmer and the remaining 64 respondents were belonged to above average asset position farmers. Out of 56 below average asset position farmers 26 (46.42%) and 21 (37.5) farmers had low and medium level of outstanding debt respectively. And only 9 (16.07) of below average asset level farmer had high level of indebtedness. Out of 64 above average asset position farmers 15 (23.43%) and 15(23.43%) farmers had low and medium level of indebtedness. Highest percentage of above average asset position farmers 34 (53.13%) have high level of outstanding debt.

It clearly shows that above average asset position farm families are having higher level of indebtedness. The calculated Chi – square value (19.1123) found to be significant at 1 percent level of probability. Therefore it could be inferred that there is association between asset position and level of indebtedness.

Farm household annual income of outstanding debt level wise distribution of respondents is given in the table 6. Out 120 respondents 67 respondents were belonged to below average annual Income level and the remaining 53 respondents were belonged to above average annual income. Out of 67 below average income farm households 34 (50.74), 23 (34.33%) farmer's had low and medium level of indebtedness respectively and only 10 (14.92%) of below average farm households had high level of indebtedness out of 53 above average income level 7 (13.20%) and 13 (24.52%) farmers had low and medium level of above average farmers 33 (62.261) have high level of indebtedness.

It clearly shows that above average farm families are having higher level of indebtedness. The Calculated Chi-square value (31.65816) found to be significant as 1% level probability therefore; it could be inferential that there is association between annual income and level of indebtedness.

Policy Implications

- Policy interventions should not be restricted to indebtedness households. A deeper agrarian crisis can be averted by policy interventions beneficial in overall terms. It will also help reduce indebtedness.
- Formal institutions have by now started entering into rural credit market through SHGs and other micro credit enterprises. They should be encouraged to intervene and have a greater presence among farmers.
- The Non Governmental Organizations (NGOs) are already involved in facilitating self-help groups (SHGs). The NGOs and local SHGs should be encouraged to act as pressure groups to regulate private moneylenders.
- Inputs in the form of seeds, pesticides and fertilizers sold to farmers could be of spurious quality. There is no regulatory mechanism. We came across situations where farmers were advised by traders to go in for a third sowing – a case of supplier- induced-demand. The private trader's should be regulated. Local non-

governmental organizations (NGOs) can be involved in regulating the private trader.

- One of the reasons for indebtedness is expenses associated with marriages in the family. A related risk factor observed is the difficulty in conducting daughters /sister's marriage when faced with an economic crisis like crop loss. Initiate involvement of civil society to discuss and bring about changes in the society by curtailing huge expenses on marriages and other social functions.
- Dealership in agricultural inputs should be given to agricultural graduates.
- Private money lending needs to the regulated with respect to the rate of interest as well as repayment schedule.
- Co-operatives are still the best means of meeting the agrarian credit needs, which should be strengthened against the challenges of private as well as global finance.
- Improve the functioning and lending procedure of the commercial banks;
- Strengthen the functioning of cooperatives;
- Generate off-farm employment opportunities;
- Implement the crop insurance scheme;
- In India, all suicides are supposed to be reported to the police. The police should have clear guidelines to identify farmers' suicide cases and inform the civic administration so as to facilitate scrutiny for compensation. The civic administration should also report to the police if any suicide case is reported to it directly.
- The earlier mechanism of the scheduled commercial Banks to effectively monitor and evaluate credit use by the trained farm graduates should be restored. Therefore, more and more technical experts like agricultural graduations should be recruited for this job. In absence of this, cheap institutional money is siphoned off for private money lending which is a dangerous development in the rural areas.

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