Nature and Dimensions of Farmers' Indebtedness in India

Rajeev, Meenakshi and Vani, B P and Bhattacharjee, Manojit

Institute for Social and Economic Change, Bangalore 560072

31 October 2012

Nature and Dimensions of Farmers' Indebtedness in India

By

Meenakshi Rajeev, B P Vani, Manojit Bhattacharjee[1]

Institute for Social and Economic Change
Bangalore, India
meenakshi@isec.ac.in

Abstract

This paper examines nature and extent of farmers' indebtedness in India using unit record data from NSSO 59th round, and provided a comparative picture of major Indian states. It shows using data from ***rice cultivating farmers*** *that productivity of small farmers is not only higher than the medium farmers, it increases with access to credit. In terms of access to credit, seen through extent of indebtedness, Karnataka is better placed than many Indian states. But Andhra Pradesh, Tamil Nadu, Punjab and Kerala lie ahead of Karnataka. Ironically however, almost half of the credit is still provided by the informal sector in the state of Karnataka (on an average). Region wise picture shows that Southern region is more dependent on informal sources of credit. Poor farmers with lower land holdings are much more deprived of the formal sources of credit than the comparatively richer ones. Thus they also pay a much higher rate of interest with modal value of 36%. But it is heartening to note that loans are taken mostly for income generating purposes. It also indirectly implies that even for the income generating purposes poor are not getting access to formal sources of credit.*

Key words: Incidence of indebtedness, productivity analysis, formal sector credit, indebted households.

1. Introduction

In the discussion of the issue of rural indebtedness, no doubt the farmer class assumes considerable importance. This is mainly because amongst the 60% of population who depend on cultivation in India, a large percentage belongs to the marginal and small farmer category. These cultivator households need credit on a continuous basis for meeting their working capital needs. Food security of the country to a large extent also depends on the output

[1] We thank State Planning Board, Government of Karnataka and Reserve Bank of India for their support to ISEC which helped to carry out this study. Usual disclaimer applies.

generated by these farmers. Therefore it is necessary to ensure timely and affordable credit to the cultivator households.

In reality however, we observe that most of the poor and marginal farmers do not get access to the formal credit network. In this context it is important to note that the farmer class is not a homogeneous group. They belong to different economic and social groups and for policy purposes it is essential to understand access to credit by these different groups of farmers' households in India. Regional variations in this context also assume importance as in certain states of India we observe burden of indebtedness leading some to take extreme step such as suicide. This calls for identifying specific state level measures necessary to combat credit related problems.

When we consider farmer households, land holding size provide a better indicator of their economic status than the household income or expenditure. Keeping this aspect in mind we examine indebtedness scenario with respect to certain indicators by classifying farmer households according to their landholding size. Analysis is also carried out by considering the social class to which the household belongs, such as schedule caste or schedule tribes (SC or ST) or, weaker section such as households headed by woman.

A number of studies examine trends in formal sec tor lending for different economic activities or different sectors in India economy using the bank level data from the Reserve Bank of India (see Shetty, 2005; Patnaik, 2005; Chavan, 2005, Basu, 2006). Studies on the rural credit market observe that there was an increase in supply of credit to rural areas during the period after nationalization of commercial banks (in 1969). However, after liberalization (1991) there has been a decrease in rural banking net work as reflected through indicators such as number of rural branch offices of commercial banks (Rajeev, 2011).

The problem of non accessibility of formal sector credit to the poor and needy has been often highlighted in the literature. Even though the state made endeavors to address this problem by stip ulating norms for compulsory lending to the agriculture sector, the formal lending agencies have not been successful in reaching out to the poor. National Sample Survey Organization (NSSO, 2002-03) data reveals that while about 30% of the poor borrowers get credit from the formal sector banks, this percentage increases to 60 for the richer farmers (see also Siamwalla et al., 1990, Bell, 1990). The problem of access may be due to the lack of collateral, inability to comply with bureaucratic procedures; illiteracy, etc. (see also Gupta and Choudhuri, 1997, Lele, 1981, Benjamin, 1981).

Most studies that deal with NSSO data however, do not provide analysis of unit record household level data; authors generally argue on the basis of the consolidated statistics provided in the NSSO report. This paper is intended to fill this gap.

2. Data Source

Union ministry of Agriculture desired a comprehensive assessment of the situation of farmers in the country in the beginning of the millennium with the interest to understand various aspects concerning farmers, which include farmers' levels of living, income and income generating assets they possess, farming practices and preferences, availability of resources, their awareness on technical developments and access to modern technology in the field of agriculture etc. To provide information on these to the ministry of agriculture, **National Sample Survey Organisation (NSSO), as a part of 59th round, conducted Situation Analysis Survey of farmers (SAS)**. The period of survey was January to December 2003. We may note in this context that *presently this is the most recent data on farmers' indebtedness available at the macro economy level.*

The survey was conducted only in the rural areas of the country and the respondents were from farmer households where a farmer household is defined as one, which has farm land and at least one member is engaged in farm activities on any part of the land during the last 365 days. In all 51,770 households were surveyed in the central sample conducted directly by NSSO. States are also supposed to carry our similar surveys in their respective states in order to increase the sample size. This is called the state sample. Pooling of state and central sample then enables one to arrive at estimates at a regional level. In this survey however, only seven states participated in the state sample and Karnataka is *not* one of them. Hence, strictly speaking, not too reliable estimates could be expected at the district level and consequently, most of our analysis is concentrated at the state level. However, we do present estimates of a few district level indicators generally to throw light on district level variations.

It is worth mentioning that while the survey provides rich micro-level information based on large samples, very few studies carry out unit level analysis (see Bhatacharjee et al, 2009, 2010) and the existing studies are usually based on the published data in the NSSO reports.

NSSO data provide information regarding households that have outstanding loan on a pre-specified date (in this case as on 30th June, 2002), based on which one can arrive at the percentage of households within a category of households (such as within an income category and so on) that have outstanding credit. This indicator termed as the *incidence of indebtedness* (IOI) essentially represents the percentage of households having outstanding loan amongst the households of that category. A careful examination of the above data reveals that IOI is higher for the higher income groups and secondly, more economically advanced states have higher level of IOI. Further, schedule tribe households in general have lower IOI than the General or OBC category households. Observing these characteristics one is tempted to interpret incidence of indebtedness more as a pointer of access to credit rather than an indicator of distress, though the latter possibility also cannot be ruled out especially for the relatively poorer households.

3. Productivity Analysis of Rice Farmers

A careful analysis of NSSO data shows that yield rate of the marginal and small farmers are higher and more importantly access to credit enhances productivity (Table 1). This clearly shows how critical credit is for improvement of productivity.

Table 1: Yield per hectare of rice crop

Land in Hectares	Borrowers	Non Borrowers	Total
0 - 0.4	3366.7	2841.9	3169.0
0.41 - 1.00	2682.0	2504.6	2626.4
1.01 - 2.00	2563.2	2022.9	2411.9
2.01 - 4.00	2110.7	2858.0	2371.4
4.01 & Above	3374.2	4359.4	2577.0
Total	2832.2	2617.1	2762.1

Source: Authors' analysis of NSSO data

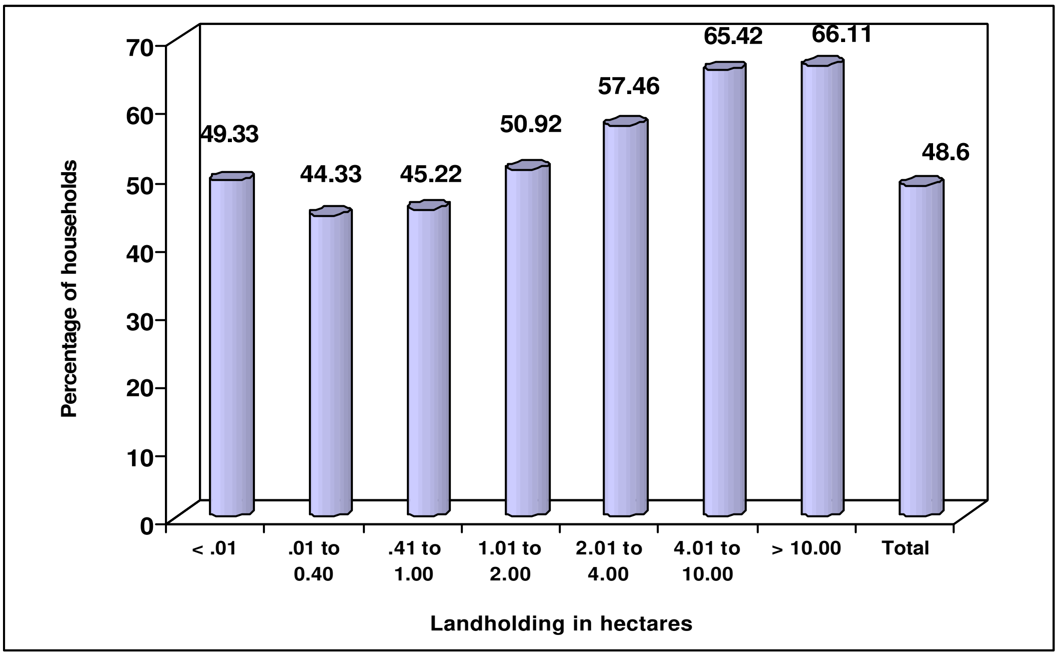
Thus making credit available to the small and marginal farmers assumes considerable importance as these cultivators are economically vulnerable. Unfavourable terms and conditions of a loan can indeed make serious impact on their sustainable livelihood. The important question that arises is what is the scenario at the ground level? The next section examines this issue using NSSO data in some detail.

4. Accessible to Finance: All India and Inter-State Analysis

At all India level the incidence of indebtedness was 48.6 percent with an average outstanding debt per farmer household of Rs. 12,585. This figure rises to Rs. 25,891 if we consider only the indebted households. As discussed earlier, if indebtedness can be taken as a proxy for access to credit then it implies that only 49% of the farmer households have an access to credit either from formal or informal source. Is it that the rest of the household do not require credit or they do not have an access to credit? IOI across different landholdings (see Fig 1) shows that access to credit increases with the landholdings. One can broadly say that the household with landholdings more that 4 hectares may or may not require credit, but majority of the households with less than 4 hectares of land possibly need credit for farm activities[2] ; the fact that IOI for these households are much lower than 50%, is an indirect indication of presence of constraint in accessibility to credit for the small and marginal farmers (both from formal and informal sources).

Figure 1: Incidence of Indebtedness across landholdings: All India (formal and informal sources)

[2] An exercise carried out by us to estimate the cost of cultivation, income and household expenditure through a field survey of Karnataka farmer households, reveals that only the large farmers are able to have positive savings.



Note : Interpretation: 49.33 % of the households with landholding less than 0.01 hectare have outstanding loan and the rest 50.67% households belonging to the same landholding category have no outstanding loan.

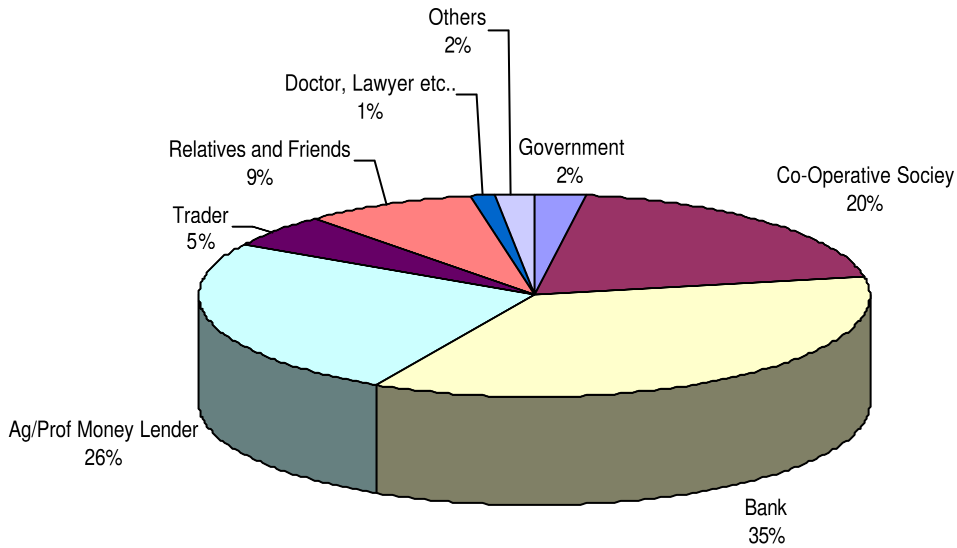
Source: Authors' analysis of NSSO data

Regional Variations

Interstate analysis indicates a wide variation across States with Andhra Pradesh having the highest IOI at 83.1% and Uttaranchal the lowest at 7.2%. All the four southern States and Punjab possess IOI greater than 60%. These are also the States with good banking network, and a good network of informal lenders which possibly result such high percentages (see Table A.1 in the Appendix).

At All India level 58% of this credit supplied to the indebted households is financed from formal source and the rest i.e., 42% is from the informal source. Banks play a major role in the formal sector (35% in total credit and 60% of the formal sector credit) and money lenders are the largest suppliers of credit among the non-formal sources (26% of total credit and 62% of informal credit) (see Fig 2).

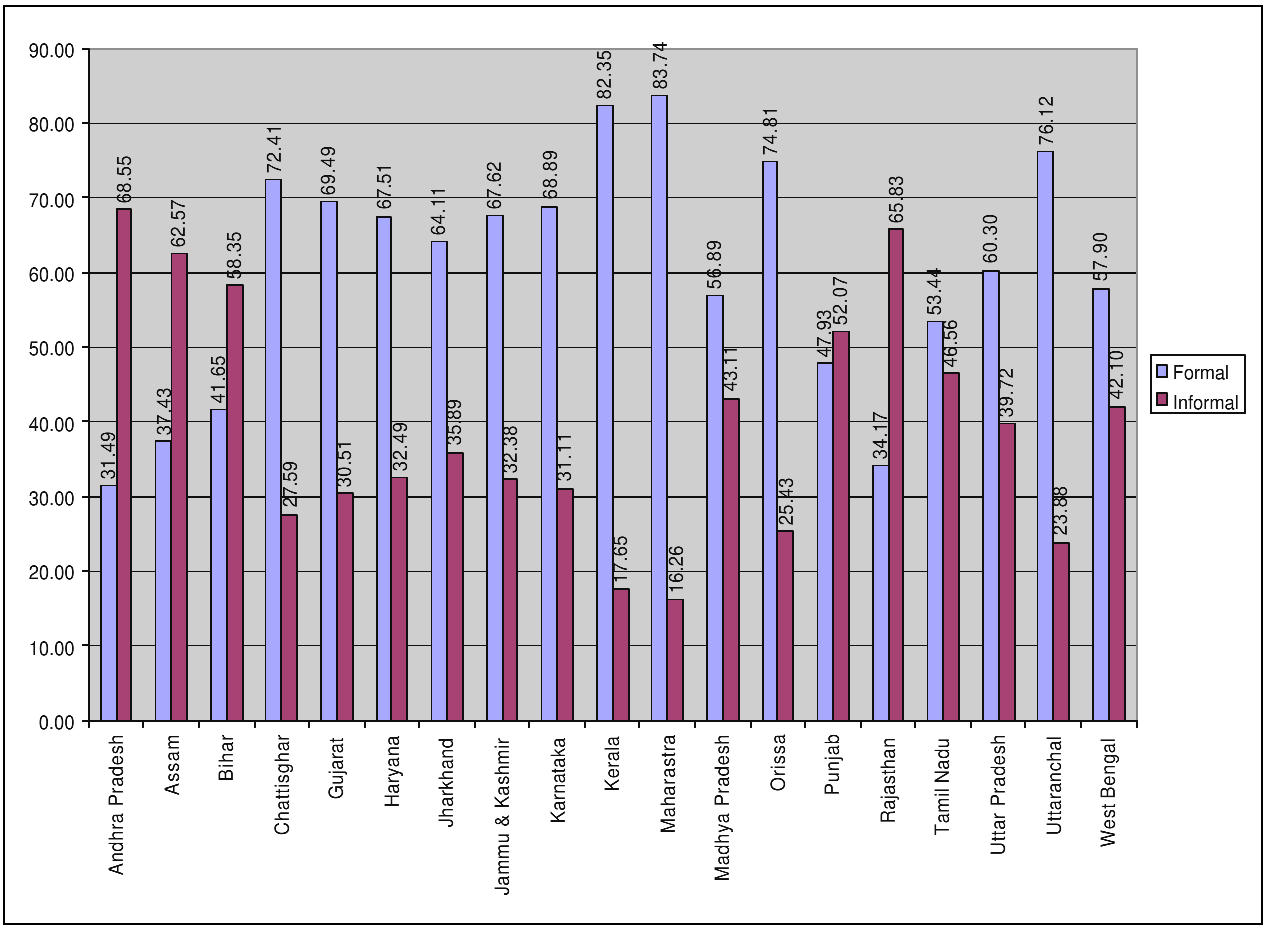
Figure 2: Source wise access to credit (percentage of amount of total loan): All India



Source: Authors' analysis of NSSO data

Interstate variation in access to formal credit is also quite noticeable. Andhra Pradesh had the lowest share from formal sector at 31% and Kerala and Maharashtra had the highest i.e., around 83% (see Fig 3). This reveals an interesting fact that even though access to credit is quite high in Andhra Pradesh, most of it is from non-formal source. In the States of Maharashtra, Gujarat, Kerala, Haryana and Tamil Nadu co-operative societies have played a major role in providing credit to the farmers. This is an additional insight received from the analysis of data on farmer households. Concentrating on Andhra Pradesh we see that 53% of the credit is financed from agriculture or professional moneylenders. The other States where the dependence on the moneylenders is more are Tamil Nadu, Rajasthan, Punjab and Bihar. The modal (mode) interest rate charged by these moneylenders is 36% which is more than three times the interest rate charged by the formal source. If the fund borrowed is at least used for the income generating purpose then the farmer households would be in a position to repay the amount borrowed; otherwise repayment can be a serious problem. We therefore examine next the purpose of usage of loan.

Figure 3: State wise access to formal credit (shares of formal and informal sector loan amount in total amount of loan outstanding as of June 2002)



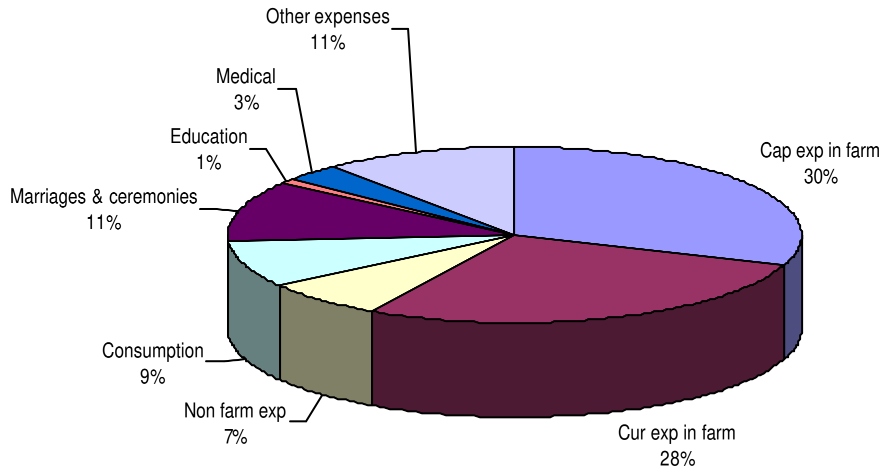
Source: Authors' analysis of NSSO data

The purpose wise usage of the credit at the all India level reveals that 65% is used for the income generating purpose and only 35% for the non-income generating purposes (see Fig 7.4). Among the non-income generating category, expenditures on marriage and ceremonies play a dominant role. From our field experience[3] we have also found that festivals and ceremonies play a major role in rural areas and the farmers end up spending substantial amount by borrowing from the informal source at a high interest rate. Variations across states are seen in this respect; for example, Assam uses only 39% of loan for income generating

[3] Related to a project taken up for State Planning Board, Government of Karnataka, ongoing.

purposes whereas, Maharashtra, Karnataka and Chattisgarh are the States, which use nearly 80% of the credit for the income generating purpose. Both Capital expenditure and current expenditure in farm are the main categories under the usage of credit (see Fig.4).

Figure 4: Usage of the credit (percentage of total amount of loan outstanding): All India



Source: Authors' analysis of NSSO data

4.1. Access to and Usage of Credit across Landholdings

Table 2 (column 1) indicates that 61% of the farmer households belong to 0.01 to 0.40 and 0.41 to 1.00 hectares of land holding categories taken together. Another 18% of the households belong to 1.01 to 2.00 hectares of land holding category. i.e., nearly 80% of the farmer households belong to marginal and small farmer category. These categories have 45%, 53% and 58% respectively of their credit through formal agencies. i.e., on an average only 50% of their credit is through formal agencies. In other words, these small and marginal farmers constitute 80% in number while their share in the total formal credit is only 52%. They in turn use 36%, 57% and 69% of total borrowings respectively towards income generating purposes. The farm households with less than 0.4 hectares of land (i.e., between 0.01 hectare to 0.40 hectare), use less than 36% of loan towards income generating purpose; with 55% of the total borrowing coming from informal sources for such farmers , and 64% of total loan amount used for non income generating purposes, may lead to the problem of repayment. Thus formal sector needs to reach out to the comparatively poorer farmers not only for production related credit but also for consumption credit. Presently there is a provision for *debt swap* whereby a formal bank can take over informal loan of a farmers and help him to repay loan under better terms. But the farmers often lack information about such useful schemes and the need of the hour is to make such provisions more popular especially among poor farmers.

Table 2: Access to credit and usage of credit (amount of loan): All India

Land holding in hectares	Share of household (%)	Source of credit		Purpose of usage	
		Formal* (%)	Informal (%)	Income generating** (%)	Non income generating (%)
< 0.01	3.62	24.19	75.81	24.93	75.07
0.01 to 0.40	29.39	44.79	55.21	35.76	64.24
0.41 to 1.00	32.49	52.64	47.36	56.90	43.10
1.01 to 2.00	18.10	57.66	42.34	68.92	31.08
2.01 to 4.00	10.64	65.02	34.98	78.28	21.72
4.01 to 10.00	4.82	68.99	31.01	83.25	16.75
> 10.00	0.90	67.01	32.99	81.59	18.41
Total	100.00	57.68	42.32	65.15	34.85

*: Percentage of amount of formal loan outstanding of total amount of loan outstanding.
**: Percentage of total amount of loan used for income generating purposes out of total loan amount outstanding.
Source: Authors' analysis of NSSO data

Across states access to credit through formal sources displays wide variations. In most of the states marginal and small farmers rely heavily (to the tune of 70% of total loan amount) on the informal source. In addition the share of usage of credit for income generating purposes in most of the states by the marginal and small farmers is quite low and this trend is especially prominent in the backward states. Thus more dependence on informal credit accessed at a high interest rate, coupled with usage of it primarily for non-income generating activities are definitely not promising signs. Thus as mentioned above the formal credit institutions have a challenging task to reach out to the economically backward classes. But what about the socially backward classes? Are they comparatively better off?

4.2 Access and Usage of Credit across Social Groups

Across social groups we find that at All India level only 36% of the households belonging to schedule tribe (ST) category are indebted. Both with respect to schedule caste (SC) category and the general category the incidence of indebtedness is 50%. Other backward class (OBC) category has the highest incidence of indebtedness at 52%. Thus access to credit is substantially lower for tribal farm households revealing that the formal credit institutions not only have an important role to play to reach out to the economically backward classes but also to the socially backward classes.

The incidence of indebtedness for the women headed households is 42% vis-à-vis their male counter part which equals 50%. Thus we observe that not only the socially backward classes like STs but also the weaker sections such as women headed farmer households have lower access to credit (considering both formal and informal sources) compared to other categories. In particular, access to formal credit was quite high for general category (66%) and lowest for the SC category 46%. Both the SC category and the women headed farmer households category used relatively lesser share towards the income generating purpose.

Even though at All India (average) level the share from the formal source of credit is low for the SC category farmer households, a wide variation is seen across States. In States like Maharashtra, Kerala, Orissa and West Bengal, these SC households had more than 70% of their credit from formal source. These households also used substantial portion of their credit for income generating purposes. States like Kerala, Maharashtra and Gujarat are more gender sensitive and more than 70% of their credit for the women headed farmer households have come from formal sector.

5. Conclusions

In this paper we examine the **yield rate of rice crop** for different types of farmers. It is observed that yield rates are higher for the small and marginal farmers and access to credit enhances productivity. Thus we study in detail the nature and extent of farmers' indebtedness (which represent access to credit) in India and provided a comparative picture of major Indian states. In terms of access to credit, seen through extent of indebtedness, Karnataka is better placed than many Indian states. But Andhra Pradesh, Tamil Nadu, Punjab and Kerala lie ahead of Karnataka.

At all India level the share from the formal source is quite low for the SC category farmer households and a wide variation is seen across States. In States like Maharashtra, Kerala, Orissa and West Bengal, SC households had more than 70% of their credit is from formal source. These households also used a large proportion of their credit for income generating purposes. States like Kerala, Maharashtra and Gujarat were more gender sensitive and more than 70% of their credit for the women headed farmer households came from formal sector. Other states can learn lessons from these states.

Thus to conclude, for many states in India dependence on informal loan by deprived class such as SC/ST is much higher than the 'others' category. Weaker sections such as women headed household also depend to a large extent on informal sources of credit. Thus there is an urgent need to improve access to formal credit for the backward class, poorer and weaker sections of farmer community.

References

Basu, Priya (2006): 'Improving Access to Finance for India's Rural Poor', The World Bank, Washington D C

Bell, C (1990), 'Interactions between Institutional and Informal Credit Agencies in Rural India' , The World Bank Economic Review, 4(3), pp. 297-327

Benjamin, M. P. (1981), 'Investment projects in agriculture: principles and case studies', Longman Publishing Group

Bhattacharjee M and Rajeev M (2010) "Interest Rate Formation in Informal Credit Market: Does Level of Development Matter?" Brooks World Poverty Institute Working Paper No. 126, university of Manchester, UK http:// www.bwpi.manchester.ac.uk/resources/Working-Papers/bwpi-wp- 12610.pdf

Bhattacharjee M, and B P Vani (2009) "Asymmetry in Information and Varying Rates of Interest: A Study of InformalCredit Market in West Bengal" *Margin*, 3 pp. 339-364

Chavan, P (2005), "Banking Sector Liberalization and the Growth and Regional Distribution of Rural Banking", in Ramchandran, V.K and Swaminathan, M (ed) (2005), "Financial Liberalization and Rural Credit in India", Tulika Books.

Gupta, M and Choudhuri, S (1997) 'Formal Credit, Corruption and the Informal Credit Market in Agriculture: A Theoretical Analysis', Economica 64(254), pp. 331-343

Lele, U (1981), 'Cooperatives and the poor: a comparative perspective', World Development, 9(1), pp. 55–72

National Sample Survey Organisation (NSSO) (2005a): All India Debt and Investment Survey – "Household Indebtedness in India as on 30.06.2002" , *Ministry of Planning and Statistics Implementation*, Government of India

National Sample Survey Organisation (NSSO) (2005b), "Indebtedness of Farmer Households", **Situation** Assessment Survey of Farmers, Report Number 498, NSSO, New Delhi.

Patnaik, P (2005), "Financial Liberalization and Credit Policy", in Ramchandran, V.K and Swaminathan, M (ed) (2005), "Financial Liberalization and Rural Credit in India", Tulika Books, New Delhi.

Rajeev, Meenakshi and B P Vani (2011) 'Emerging from Shadow: New Dimensions of Household Indebtedness in India', VDM Verlag, Germany.

Shetty (2005), "Regional, Sectoral and Functional Distribution of Bank Credit", in Ramchandran, V.K and Swaminathan, M (ed) (2005), "Financial Liberalization and Rural Credit in India", Tulika Books, New Delhi.

Siamwalla, A et al. (1990), 'The Thai Rural Credit System: Public Subsidies, Private Information, and Segmented Markets', The World Bank Economic Review, 4(3), pp. 271-295

Appendix

Table A.1: Incidence of Indebtedness

States	Incidence of Indebtedness	Average outstanding loan (in Rs)		Median outstanding loan (in Rs) within indebted household
		All households	Within indebted households	
Andhra Pradesh	82.13	23965	29178	13910
Assam	18.12	813	4484	1400
Bihar	33.02	4476	13552	5166
Chattisgarh	40.19	4122	10256	4125
Gujarat	51.91	15526	29912	15000
Haryana	53.13	26007	48952	24357
Jharkhand	20.87	2205	10564	4000
Jammu & Kashmir	31.84	1903	5977	576
Karnataka	61.61	18135	29437	10300
Kerala	64.37	33907	52676	22150
Maharashtra	54.85	16973	30948	12000
Madhya Pradesh	50.80	14218	27987	11200
Orissa	47.83	5871	12275	5700
Punjab	65.44	41576	63529	20000
Rajasthan	52.43	18372	35044	15500
Tamil Nadu	74.47	23963	32178	12360
Uttar Pradesh	40.33	7425	18409	8250
Uttaranchal	7.18	1108	15429	6840
West Bengal	50.12	5237	10449	4650
All India	48.61	12585	25891	10000

Source: Author's analysis of NSSO data