Assessing the Use of Land as Collateral for Accessing Credit from Institutional Sources in Rural India

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Abstract

Data on access to credit in rural India is mostly available from periodic large-scale surveys and some primary research in different parts of India. The growth of institutional sources of credit was quite dramatic during the first four decades after Independence. There appears to have been a regression since then. There is some evidence to show that land as collateral is a frequent requirement for institutional lenders. There is also some scattered evidence that land is more likely to be used as collateral by larger landholders and a clear title favours extension of loans. However, there is very little data on the extent to which these hypotheses hold well across States. Textual records [copies of Record of Rights (RoRs)] gathered for the construction of the NCAER Land Records and Services Index (N-LRSI) 2020 offered an opportunity to understand the situation in different States with respect to the issues mentioned above. This paper assesses the data gathered for six Indian States/Union Territories (UTs): Chhattisgarh, Gujarat, Himachal Pradesh, Madhya Pradesh, Uttar Pradesh, and Uttarakhand. The paper highlights the extent to which various hypotheses prevalent in the literature are borne out by the evidence obtained through the sample data gathered for the States/UTs that are the subject of this paper. While adding to the knowledge on the subject, it will help enhance an understanding of both the subject and policy making in the area of rural credit.

Keywords: Collateral; Credit; Land Records; RoRs; N-LRSI; Joint ownership; Khatas; Khasras; Landholding

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1. Background

The critical role of credit in rural economic development has been widely recognised across the globe (for example, Binswanger and Khandker, 1995; Carter and Wiebe, 1990; Feder et al., 1990; Pitt and Khandker, 1998; Khandker and Faruqee, 2003; Guirkinger, 2008; Awotide et al., 2015; Narayanan, 2016; Luan and Bauer, 2016; Kumar et al., 2017). Apart from the need for enhancing farm productivity driven by investment in appropriate agricultural inputs and technology, credit is also required for personal reasons such as construction/purchase of house, education, medical attention, crop failure for any reason, and of course, to repay earlier loans. According to the recently conducted NABARD All India Rural Financial Inclusion Survey (NAFIS, 2018) in 2016-17, the overall incidence of indebtedness in the surveyed households is 47.4 per cent and the average outstanding debt per indebted household is Rs 91,407. Further, according to NAFIS 2016-17, around 32.7 per cent of the respondents reported that they resort to borrowing in the event of crisis/emergency situations.

1.1. Credit Sources

Given this level of credit availed of by rural households, what are the channels through which credit flows take place in rural India? In this context, the sources of credit can be broadly categorised as institutional and non-institutional. The non-institutional sources encompass money lenders, landlords, traders and commission agents, friends and relatives of the credit seeker and in recent decades, micro finance groups. The institutional sources comprise cooperative societies and banks, scheduled commercial banks, and the Regional Rural Banks, which provide loans to the farmers.

At the time of Independence, the reliance on non-institutional sources of credit was overwhelming, at 90 per cent (All India Debt and Investment Survey, AIDIS, 1951). Over the years, with a deeper penetration of institutional credit options, there has been a marked shift in these shares—institutional credit supply surged to around 66 per cent in 1991, as compared to a corresponding share of 34 per cent for non-institutional sources. Thereafter, the share of institutional credit declined to 61 per cent and 59 per cent in 2002 and 2012, respectively (AIDIS, 2013). At first glance, it would appear that the policies of economic and financial liberalisation may have been less successful in ensuring institutional credit to rural India than the flows during the prior era of more consciously directed institutional credit. While there have been concerns regarding under-reporting of the credit amount under AIDIS, a similar extent of the credit was reflected in NAFIS 2016-17, according to which around 61 per cent of the agricultural households availed of credit from institutional sources. According to the RBI report of the Internal Working Group to Review Agricultural Credit (RBI, 2019),...
the consistent decline in investment credit can be attributed to the increasing fragmentation of land, making landholding units unviable for investment credit. According to the Agriculture Census 2015-16, the average landholding size declined from 2.28 hectares in 1970-71 to 1.08 hectares in 2015-16.

However, another reason for the decline in investment credit is perhaps far more significant as regards the increasing proportion of credit being availed from non-institutional sources since 1991. Starting initially with NGO-led initiatives, actors like NABARD and the Ministry of Rural Development have, since the 1990s, become major promoters of micro finance to meet rural credit requirements. The RBI report of the Internal Working Group to Review Agricultural Credit (2019) showcases the role of programmes like the Self Help Group-Bank Linkage Programme (SHG-BLP) and Joint Liability Groups (JLGs), in providing collateral free credit. According to the NAFIS findings, roughly one-fourth of the surveyed households are associated with one or more microfinance groups. Amongst the various microfinance groups, the penetration of SHGs was the highest, with about 20 per cent of the households reporting at least one member being associated with these groups. It would be safe to assume that loans from SHGs have become a significant form of sourcing credit, reducing the share of not only institutional sources but also more conventional non-institutional sources.

1.2. Reasons for Continued Dependence on Informal Credit Sources: Role of Collateral

Studies focusing on various developing economies enumerate a number of factors as to why institutional credit has failed in making greater headway, including income levels, ability of the borrower to repay, assessment of the risk of default, farming experience, household size, the availability of collateral, and gender (Ray, 1998; Pham and Lensink, 2007; Tsukada et al., 2010, Kumar et al., 2013).

In India, the high interest rates (as compared to the rates offered by some non-institutional sources), excessive collateral requirements, and lengthy application processes associated with institutional sources have been mentioned as reasons for not availing of institutional credit (NAFIS, 2016-17). The NAFIS study also probed the reasons for the loan not being sanctioned by institutional sources, despite the household having reported seeking a loan. As many as 43 per cent of these respondents stated that their loan request was declined due to incomplete documentation. Delving into the various categories of informal lending sources, the NAFIS study suggested that money lenders constitute 35.8 per cent of the informal sources, the second most important source after “friends and relatives”. Overall,
money lenders as a source accounted for 11 per cent of the sources for the total loans taken by the surveyed households.

Why do households/individuals still resort to expensive informal sources of credit like money lenders, despite the advent of various initiatives for enhancing access to sources of institutional credit? One reason for this is trade ties. While Mukherjee (2013) established this relationship for rural India, Guirkinger (2008) and Tang et al. (2010) noted this for Peru and China, respectively. Several studies point towards the economic profiles of the borrowers as an important determinant for approaching informal lenders (Kurup, 1976; Mohieldin and Wright, 2000; Banerjee and Duflo, 2007). The economically disadvantaged section of the population largely resorts to informal lending sources. Another factor that has been flagged in the literature is the high transaction costs associated with formal lending sources.

Above all, the role of collateral in accessing formal credit sources has been brought out in both international as well as Indian research studies. The lending agencies face serious challenges of information asymmetry with regard to borrowers from poor rural households, as it is difficult to ascertain their ability to repay, which increases the perception of default risk. To overcome this problem, lenders try to protect their investment by mandating that the borrower should offer a collateral to cover any possible losses in case of default (Larr, 1994). In this regard, the non-requirement of collateral is another factor as to why borrowers approach money lenders. A study in Odisha showed that informal lenders also accepted utensils, tractors, and harvest produce as collaterals while extending loans to borrowers (Swain, 2001). Bhaduri (1977) enhanced the theoretical understanding about the nature of non-marketable securities accepted by money lenders and their under-valuation as a way of ensuring that in case of default, the value of the collateral transferred to the money lender was higher than the value of the loan extended. These studies substantiate the fact that informal lenders do not require high-value collateral like land and are hence an easy source of credit for farmers who may not have sufficient land to provide as collateral. On the other hand, the insistence on offering land as collateral is common in the case of institutional credit.

A household survey in Karnataka by Rajeev et al. (2011) found that the lack of adequate land to offer as collateral was one of the fundamental reasons for borrowers not resorting to formal credit. In an attempt to juxtapose this with the collateral provided for securing loans from formal financial institutions in Karnataka, it was observed that only 13 per cent of the formal sector loans were given without security.
1.3. **Use of Land as Collateral**

In the Indian context, the role of collateral for accessing credit in rural India has been investigated by a number of studies (Sarap, 1991; Swaminathan, 1991). It has been noted that mortgaging land is usually considered by borrowers as a last resort for borrowing and is used as a collateral only in cases of emergencies. Land is also considered as a high-quality asset and tends to be mortgaged only when a relatively large value loan is being sought. The study by Sarap (1991) established the importance of land as a collateral and derived its findings from a survey conducted in Odisha in the 1980s. The author found that the share of loans against land, gold, and utensils was 41 per cent and 31 per cent in the dry and wet areas, respectively. Amongst marginal and small farmers, the corresponding figures were 41 per cent and 48 per cent in the dry and wet areas, respectively.

Rajeev et al. (2011) pointed out the role of land as a security for accessing credit through formal (institutional) sources—the study found that 59 per cent of formal loans were given against land as security. Narayan and Chakraborty (2019) used the AIDIS data to calculate the proportion of institutional credit with the mortgage of immovable property. The authors observe that the total share of the surveyed households with immovable property as collateral is 12.7 per cent and that the maximum loans, at 22.5 per cent, are taken by the households that are self-employed in agriculture. On the other hand, according to Krishnan et al. (2016), in the category of agricultural loans, more than 80 per cent of all loans have land as collateral (this figure is based on RBI's Basic Statistical Returns 2014). The Narayan and Chakraborty paper also sheds light on the share of various lending agencies that lend with land as collateral: co-operative banks/societies and commercial banks including Regional Rural Banks accounted for 14.7 per cent and 15.9 per cent, respectively of the total credit supply with the mortgage of immovable property. Land Development Banks are major players in providing credit against land (Rao and Priyadarshini, 2013). Rajeev et al. (2011) made similar observations in their household survey in Karnataka. Other institutional sources include non-banking financial companies (NBFCs), financial companies, and financial corporations. In terms of value, the average loan size for mortgage against immovable property and first charge on immovable property in rural India was seen to be around Rs 92,000 and Rs 76,000, respectively, which was 2-3 times higher than that of personal security.

1.4. **Landholding Size and Use of Land as Collateral**

The role of land as collateral for accessing formal credit is highlighted by the linkage between land size and formal credit access, in NAFIS 2016-17. Considering all households, the average size of land owned was 0.54 hectare per household. When
analysed by the type of households, that is, agricultural or non-agricultural households, the agricultural households reported a much larger ownership of land with the average size (1.0 hectare per household) being almost eight times that for non-agricultural households (0.13 hectare per household). On an average, 69 per cent of the households secured loans from institutional sources. Rajeev et al. (2011) found that formal sources of credit accounted for merely 18 per cent of the loans for land holdings less than 0.01 hectare in size, while it accounted for 97 per cent of the loans for land holdings more than 10 hectares in size. Based on NSSO, 2005 data, Mahendra Dev (2012) documents that the share of formal sources of credit increases with the size of landholding. For different parts of India, the share of formal sources in the grant of credit varies from 22.6 per cent to 58 per cent for small and marginal farmers, while it is between 65 per cent and 68 percent for medium to large farmers.

NAFIS also showed that amongst indebted agricultural households, those with larger holdings, in general, had a higher overall debt burden, taking both institutional and non-institutional sources together. Further, the average amount of loan per household in each landholding size class was much higher for the loans taken from institutional sources as compared to loans taken from non-institutional sources. While there was an increase in the debt burden with an increase in the landholding size, the households in the category of those with more than 2 hectares of land exhibited a sharp increase in the loan amount, being almost double the amount taken by the households having land in the range between 1 and 2 hectares.

Small/marginal farmers have relatively smaller credit requirements. It is generally believed that land represents a high-quality asset and is used as collateral only when households seek larger loans (Sarap, 1991). In this context, another interesting finding of this study was that on an average, borrowers received loans worth about 40 per cent of the market value of land, with marginal farmers securing a lower amount at one-third of the value of land.

According to Narayan and Chakraborty (2019), loans associated with land as collateral are of a relatively larger size. The authors computed that loans mortgaging immovable property as first charge are 10-12 times that of personal security in urban areas and 2-3 times that in rural areas. This hypothesis was also supported by the findings of a field survey analysed by the authors, which covered 102 land owners across 20 villages in the Palghar and Mulshi talukas in the State of Maharashtra in 2016-17. The survey findings indicated a larger loan requirement as one of the reasons for using land as collateral for accessing formal credit.
1.5. **Joint Ownership**

It would appear that excessive joint ownership over a land parcel impedes its use as collateral for accessing credit. Based on AIDIS data, Narayan and Chakraborty observed that single owners are more likely than joint owners to use immovable property as collateral and this is twice as likely in rural areas and 1.2 times in urban areas. According to the authors, the reason for this is that most of the plots are not sub-divided, and it, therefore, becomes difficult for a specific owner to use the parcel as collateral. In this context, it was found that among rural households that are not encumbered by joint ownership of land, 15.6 per cent of those reporting any cash loan, immovable property was used as collateral. However, among respondents who said that they owned their land in common with others, only 7.3 per cent used immovable property as collateral.

These findings from AIDIS data were supported by analysis of findings of a field survey of 102 landowners across 20 villages in the Palghar and Mulshi talukas in the State of Maharashtra in 2016-17. The survey revealed that only 11 per cent of the sampled households used land as collateral for loans/mortgage. The reported reasons for this low usage of land as collateral included high transaction costs for accessing credit through formal banking institutions; the cultural value that the owners attached to the land; and large number of instances of joint ownership recorded over a piece of land, which acts as an impediment for using land as a collateral. Out of the total plots surveyed, the percentage of plots with multiple owners was 61 per cent, potentially explaining the low degree of usage of land as collateral. The constraining influence of joint ownership in collateralising land has also been recognised by Krishnan et al. (2016).

The hindrance presented by excessive joint ownership has been part of the rationale for the adoption of the “extent of joint ownership” as one of the indicators for the quality of land records component of the NCAER Land Records and Services Index (N-LRSI) 2020. Excessive joint ownership is an inaccurate reflection of possession on the ground, which inhibits ease of transacting in the land and possibly its use as collateral to avail of credit. A pilot impact assessment in Himachal Pradesh (NCAER, 2017) found that in 49 per cent of the sampled plots, there was a variation between the actual and recorded possession, and 72 per cent of such cases were those wherein all the shareholders were recorded but the actual possession rested with a lower number of the recorded shareholders.

1.6. **Gender Bias in Credit Access**

Landownership in most countries is skewed towards males. It is logical to believe that this would also be reflected in the data related to accessing credit. This has been
observed in many developing countries (Fletschner, 2009; World Bank, 2019; FAO, 2011). The World Bank’s Findex Report 2017 observes that the gender gap in finance is persistent at 9 per cent in developing countries (Demirguc-Kunt, Klapper, Singer, Ansar, & Hess, 2017). In South Asia, less than 10 per cent of the women access formal channels of finance and one the reasons for this is the lack of collateral, as ownership of land is often recorded in the name of a male (Narain, 2009). With the lack of collateral, lending agencies are disincentivised to offer credit to women, thereby creating supply side constraints (Klapper and Parker, 2010; Finnegan, 2015).

More importantly, the proportion of women availing of loans using land as collateral is likely to be even smaller than their proportion as landowners. In the Indian context, Kumar et al. (2013) and Samuel et al. (2015) are some studies that have observed relatively lesser access to formal credit in the case of female-headed households. Using micro-level data, Ghosh and Vinod (2017) estimate that on an average, female-headed households in India are 8 per cent less likely to access formal finance and 6 per cent more likely to access informal finance as compared to households that are headed by males.

1.7. Summary of Literature Review Findings

Against the backdrop of the above literature review, some of the important takeaways from the surveys and research available in this area can be summarised as follows:

a) Credit is accessed for a number of reasons in rural India and indebtedness among households is quite high (around 47.4 per cent, according to NAFIS, 2016-17).

b) Institutional credit has gained share over time but appears to have reduced in recent times. While non-institutional sources of credit still account for a significant share of total agriculture credit, over time micro-finance obtained through SHGs has become an important source in this category.

c) Some of the factors that are responsible for continued dependence on informal sources of credit include the economic status of borrowers, transaction costs associated with lending agencies, trade-loan nexus, and the requirement of collateral as security.

d) Land is the most important form of collateral for accessing formal credit. Varying degrees of use of land as collateral have been reported in the literature.

e) As regards the type of institutional sources, it has been noted that land development banks (Rajakrishnan, et al.), other co-operative societies, and commercial banks are the leading source of formal credit with land as collateral.

f) Literature documents the following factors that influence the use of land as collateral:
(i) **Loan size**: Using land as collateral is more likely for larger-sized loans.

(ii) **Landholding size**: Institutional credit is more likely to be associated with larger landholding size.

(iii) **Loan size and value of land used as collateral**: The size of loan is likely to be a much smaller amount than the value of land offered as collateral and is likely to be even smaller for smaller-sized landholdings.

(iv) **Extent of joint ownership**: Owners who jointly own a land parcel are less likely to avail of credit than owners recorded singly.

(v) **Gender**: The proportion of women availing of loans from institutional sources using land as collateral is likely to be even smaller than their proportion as landowners.

### 2. Objectives

Against this background and the range of estimates for the use of land/property as collateral for institutional loans and other related aspects, this study aims to use the sample data of NCAER Land Records and Services Index (N-LRSI) 2020 to arrive at a fresh set of estimates of instances and value of mortgages in six States: Gujarat, Himachal Pradesh, Madhya Pradesh, Uttar Pradesh and Uttarakhand. Based on the availability of information in the sample Records of Rights (RoRs), this paper will also correlate this evidence on mortgages with landholding size, the extent of joint ownership, and the gender status of ownership. In effect, this paper attempts to verify the evidence or hypotheses present in literature with respect to the areas listed below, which pertain to the use of land as collateral. While Lack of a standardised RoR structure across the selected States makes it difficult to adopt more rigorous statistical tools to compare the findings across the States.

1) The NAFIS sample estimates that 47.4 per cent of the rural households in India are indebted; 59 per cent of these households avail of loans from institutional sources and 80 per cent of these loans are secured by land as collateral (in effect, about 22.37 per cent of rural households).

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1 However, the caveat in this comparison/verification is that different sampling methodologies have been adopted across studies. As this paper has tried to verify most of its findings with the ones derived from NAFIS, Table A1 in Annexure provides a comparison of state wise sample from NLRSI and NAFIS.
2) Country-wide, NAFIS notes that the average loan size from institutional sources is Rs 63,645 (or 69 per cent of the total).

3) Information on the shares of different categories of institutional channels of credit securing loans with land as collateral is limited.

While the estimates from the NAFIS sample on different attributes mentioned in points 1, 2, and 3 provide national estimates, our analysis of the sample data available with us breaks new ground by making available State-wise estimates for the States being covered. It will bring out the extent of correlation or variation from the country-wide estimates in the States being covered by this study.

4) Literature on landholding size and accessing of loans from institutional channels highlights that the use of land as collateral goes up with the larger size of holdings and larger loan size. There are some estimates about this (Dev, 2012) and this paper will analyse the extent to which the sample States reflect this position.

5) Literature on loan size and the value of land offered as collateral is limited. This paper will estimate this relationship in different States and also view this in the context of landholding size.

6) The analysis of our sample data will enable testing the hypothesis that a greater extent of joint ownership is likely to be a constraint in the use of land as collateral and, therefore, availing credit from institutional sources. For our sample States we will compare the extent to which loans (secured by land as collateral) are availed from institutional sources in the case of single owner landholding vis-à-vis jointly held landholdings.

7) Analysis of the sample data of land ownership by gender in relation to the record of land being offered as collateral for loans will enable seeing the extent to which our sample States reflect the position posited by literature that this will be disproportionately skewed against female land owners.

3. Methodology

As mentioned earlier, this study uses data gathered for the construction of N-LRSI 2020 with respect to 6 Indian States: Chhattisgarh, Gujarat, Himachal Pradesh, Madhya Pradesh, Uttar Pradesh, and Uttarakhand. This data consists of a sample of RoRs from these States. The size of the sample for each State is exhibited in the table below.
3.1. Sample Size for Each of the 6 States/UTs

For construction of the N-LRSI 2020, a three-stage stratified random sampling approach was adopted to arrive at samples checked to assess the extent of digitisation of the land record in various States/UTs. At the first stage, in every district reporting digitisation of land records in the country (635 out of 661) up to 5 tehsils were selected through PPS (Probability Proportional to Size), followed by selection of up to 12 villages at the second stage through circular systematic random sampling. Finally, village wise one random plot per village was picked for the online test check of the availability of land records. This enabled obtaining copies of Records of Rights (RoR) in relation to 32,576 plots in [28] States/UTs. Out of this, 7744 samples of RoRs pertaining to the States/UTs mentioned, have been analysed in this paper.

3.2. Mortgage Information in RoRs

As stated above, the RoRs were obtained for randomly selected plots. The NLRSI 2020 that 28 States/UTs record information about mortgage in relation to the property in the RoRs. In the case of all the six States covered in this paper, this information is shown in the RoRs. In most States/UTs, plots form part of khatas (accounts of landowners) in the RoRs. Since this paper focuses on landholding size as an important determinant of loan against land, information with respect to the entire holding in the khata/account in relation to the selected plot, was also obtained. The khata has, therefore, been taken as a sample unit in all the States/UTs except Gujarat, where the information on mortgaging of land to obtain loans is recorded in the khasra/plot-wise record. While considering khatas as the sample units, it is observed that a common mortgage remark appears across all plots in a khata in most States/UTs. In the case of the States analysed in this paper, in only a few cases in UP and Uttarakhand is there plot-specific mortgage information in the khatas themselves (apart from Gujarat, where the information is, in any case, available plot-wise).

With regard to the actual details of the mortgages, the information can be related to three relevant matters—the mortgage value, mortgaged area, and name of the specific owner/s (in a khata comprising many owners) who have mortgaged the land. The information pertaining to the mortgage amount is generally available in all the States that have been considered except Chhattisgarh and few sample RoRs in Gujarat. Information regarding area that has been mortgaged is available only in the case of Himachal Pradesh. It is either available in the form of the exact area that is

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2 This mortgage information pertains to only formal sources of loans.

3 A khata maintains information about all the land parcels owned by a set of owners. The name of an individual can appear in more than one khata.
mortgaged or is assessed through the information about the number/name of owners mortgaging land, the area that they are mortgaging, and their share in the entire *khata*. It is important to note that these key pieces of information are available in the RoR for estimating the precise area that is mortgaged. For the remaining States in the sample, the entire area of the *khata* has to be assumed to be mortgaged since the record exhibits this position even if this may not be the case. In the case of UP and Uttarakhand, though the names/numbers of owners with loans and their share in the *khata* is given, there is no mention about the proportion that they have mortgaged and hence the total *khata* area is assumed to be mortgaged (irrespective of their shares). However, in the case of UP and Uttarakhand, the information on the number of owners with loans has been taken into account for analysis (in effect, while the number of mortgagers may be less than the total number of owners in the *khata*, the entire land in the *khata* is assumed to be mortgaged since that is what the record exhibits). For other States (except HP of course), all the owners of the *khata* are assumed to be taking loans.

Individuals can own land in more than one *khata*. In other words, they can be co-owners with a different set of persons in different *khatas*. For our analysis, we have considered only the *khata* that has been selected in the sample to be the landholding of the concerned persons.

The State-wise sample RoRs obtained for this paper and the RoRs with mortgage-related information are shown in Table 1.

### Table 1: State-wise Sample RoRs

<table>
<thead>
<tr>
<th>S. No.</th>
<th>States</th>
<th>Sample RoRs</th>
<th>RORs with Mortgage Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Uttar Pradesh</td>
<td>2670</td>
<td>808</td>
</tr>
<tr>
<td>2.</td>
<td>Madhya Pradesh</td>
<td>1600</td>
<td>350</td>
</tr>
<tr>
<td>3.</td>
<td>Chhattisgarh</td>
<td>1013</td>
<td>611</td>
</tr>
<tr>
<td>4.</td>
<td>Gujarat</td>
<td>1367</td>
<td>731</td>
</tr>
<tr>
<td>5.</td>
<td>Himachal Pradesh</td>
<td>419</td>
<td>90</td>
</tr>
<tr>
<td>6.</td>
<td>Uttarakhand</td>
<td>675</td>
<td>52</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL</strong></td>
<td><strong>7744</strong></td>
<td><strong>2641</strong></td>
</tr>
</tbody>
</table>

*Source: Authors' calculations based on N-LRSI 2020 data.*
3.3. Approach for Testing the Hypothesis

The analysis for testing the hypothesis has been carried out by computing appropriate ratios and making a comparison across owners/khatas with loans and without loans.

i) Information about the extent of loans taken against land in the selected sample has been assessed by computing the following measures:

1. Percentage of khatas with loans;
2. Percentage of khata area with loans;\(^4\) and
3. Number of owners with loans.\(^5\)

ii) The impact of landholding size on the extent of use of land as collateral has been gauged through two measures - the average area for khatas with loans,\(^6\) and without loans have been used to test whether larger holdings are more likely to take loans using land as collateral. In the case of Himachal Pradesh, this analysis was also possible by individual owners taking loans.

iii) For testing the hypothesis that the loan size increases with the land holding size, the loan values that were available across different years were inflation-adjusted to 2019, using the Cost Inflation Index.\(^7\) The sample was divided between khatas with above and below average landholding size, and for both these groups, the average loan size was calculated and compared.

iv) For assessing the relationship between the extent of joint ownership and use of land as collateral, the degree of joint ownership was observed in khatas with and without loans. For this purpose, the number of owners in a khata were divided across six categories: 1 owner; 2 owners; 3-5 owners; 6-10 owners; 11-15 owners, and more than 15 owners. The information was analysed to understand which group of khatas (with or without loans) have a higher degree of joint ownership.

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\(^4\) Only in the case of Himachal Pradesh, the exact area that is mortgaged could be computed as all the relevant information is available in this regard. In the other States, the entire area of khatas (with loans on it) is assumed to be mortgaged.

\(^5\) Only in case of Himachal Pradesh, Uttar Pradesh, and Uttarakhand, the owners who have taken loans could be accurately estimated. For the remaining States, all the owners of khatas (with loans on it) are assumed to be taking loans.

\(^6\) The exact area that is mortgaged could be computed only in the case of Himachal Pradesh, as all the relevant information is available in this regard. In the other States, the entire area of khatas (with loans on it) is assumed to be mortgaged.

\(^7\) Central Board of Direct Taxes (CBDT).
v) Gender analysis has been carried out at two levels—one at the *khata* level to
gauge the proportion of male and female owners in the khatas with loan and
without loan; and second, at the owner level, to understand the shares of males
(and females) in the total area and the shares of male (and female) owners with
loans in the total number of owners with loans.

4. Analysis

This section discusses the findings derived from the analytical exercise that was
undertaken to assess the above-listed hypothesis. A comparison of these findings
across States has been made only if they exhibit similar RoR characteristics.

4.1. Extent of Loans Where Land is Used as Collateral

The proportion of RoRs that record loans against landholdings ranges from 7.6 per
cent in Uttarakhand to 60.3 per cent in Chhattisgarh (Figure 1). Overall, for the entire
sample of all the States/UTs in this study, the corresponding proportion is 25.3 per
cent.

With regard to the extent of land that is mortgaged, information pertaining to
the exact area mortgaged (Figure 2) is provided only in the RoRs for Himachal
Pradesh, and amounts to 21.5 per cent of the total area of the sample RoRs. For the
other States, the entire RoR area is considered to be mortgaged. This varies from 13.9
per cent in Uttarakhand to 61.7 in Chhattisgarh.

Finally, the proportion of landholders taking loans using land as collateral has
been assessed based on the number of landowners that have taken loans in their
names against the land which they own (Figure 3).

Figure 1: Instances of Loan Where Land is Used as Collateral (%)

![Figure 1: Instances of Loan Where Land is Used as Collateral (%)](source: Authors' calculations based on N-LRSI 2020 data.)
Figure 2: Land Area Used as Collateral

![Figure 2: Land Area Used as Collateral](image)

Source: Authors’ calculations based on N-LRSI 2020 data.

Note:

a) The area being mortgaged is given in Himachal Pradesh.
b) The entire RoR area is assumed to be mortgaged in the remaining States.

Figure 3: Landowners Using Land as Collateral

![Figure 3: Landowners Using Land as Collateral](image)

Source: Authors’ calculations based on N-LRSI 2020 data.

Note: Information relating to specific owners taking loans is given in the RoRs of Himachal Pradesh, Uttar Pradesh, and Uttarakhand. For the remaining States, the RoRs do not mention the specific landowners taking loans.

The relative State-specific findings are consistent across all the three parameters that have been used to assess the extent of land used as collateral (Figures 1 to 3), depicting the instances of loans, land area used as collateral, and landowners using land as collateral, respectively.

Most of the States in our sample exhibit considerable variation from the findings derived from AIDIS data by Narayanan and Chakraborty (2019), according to which 12.7 per cent of all surveyed households take loans against immovable
property, and this share is 7.3 per cent in urban areas and 14.5 per cent in rural areas. Gujarat and Chhattisgarh show the maximum variation in this regard.8

4.2. Landholding Size and Use of Land as Collateral

In order to test the hypothesis that larger landholdings are more likely to be associated with the use of land as collateral, two alternatives have been adopted – comparing the average area of the sample RoRs with and without loans (Figure 4); and comparing area per owner in the sample RoRs with and without loans (Figure 5).

In case of the first option, all the States exhibit a higher average area for RoRs with loans as compared to RoRs without loans. This trend is mirrored with respect to the second option where the area per owner is considered, and this also exhibits consistency with the hypothesis that a higher landholding size implies a higher likelihood of loans taken against land.

Figure 4: Average Area (in Hectares)

Source: Authors’ calculations based on N-LRSI 2020 data.

Note:

a) Information relating to the exact area mortgaged within joint holdings is available only in Himachal Pradesh.

b) Not available for the remaining States, so the area mortgaged is taken as the entire area even in the case of joint landholdings.

8 This can be attributed to the exceptions.
Figure 5: Area per Owner (in Hectares)

Source: Authors’ calculations based on N-LRSI 2020 data.

Note:

a) Information relating to the area mortgaged and the names of owners taking loans is given in Himachal Pradesh.

b) Information relating to the area mortgaged is not given but the names of owners taking loans is given in Uttar Pradesh and Uttarakhand.

c) Information relating to the area mortgaged and the names of owners taking loans is not given in the remaining States.

4.3. Loan and Landholding Size When Land is Used as Collateral

In order to test the hypothesis that loan size is likely to be proportionately larger for larger landholdings when land is used as collateral, the loan size is compared for the below-average landholding size with the above-average land holding size (Figure 6). In the case of Himachal Pradesh, there is no significant difference between the two. In the case of the remaining States, while the data for Gujarat, Uttar Pradesh and Madhya Pradesh is consistent with this hypothesis, the opposite holds true for Uttarakhand. Details of the loan amount are not given for Chhattisgarh.
Figure 6: Average Loan Size

Source: Authors' calculations based on N-LRSI 2020 data.
Note:
  a) Information relating to the exact area mortgaged is given in Himachal Pradesh.
  b) Information relating to the area mortgaged is not given in the remaining States.

4.4. Extent of Joint Ownership

For testing the extent to which joint ownership affects the use of land as collateral, categories reflecting different numbers of owners have been formed and the degree of joint ownership has been compared for the RoRs with and without loans. It is seen in that in the states of Himachal Pradesh (Figure 7A), Uttar Pradesh (Figure 7B), and Uttarakhand (Figure 7E), where individual owners are shown as borrowers, joint ownership is not really a constraint for availing of loans using land as collateral. In fact, fewer single ownership khata have availed of loans than those not having done so, and more jointly held khata (in different categories as per the number of owners) show mortgages than the other way round. On the other hand, in the States where no such distinction between owners availing of loans and the rest in a joint holding is reflected in the record, the number of cases where joint holdings reflect the use of land as collateral shows a decline, and the cases of single owners in khata with mortgages shows a proportionate rise (Figure 7C, Figure 7D, Figure 7F).
Figure 7A: Himachal Pradesh

Figure 7B: Uttar Pradesh

"Source": Authors' calculations based on N-LRSI 2020 data.

Figure 7C: Madhya Pradesh

Figure 7D: Gujarat

"Source": Authors' calculations based on N-LRSI 2020 data.

Figure 7E: Uttarakhand

Figure 7F: Chhattisgarh

"Source": Authors' calculations based on N-LRSI 2020 data.
4.5. The Gender Dimension

For understanding the gender dimension of loans using land as collateral, the following analysis was undertaken:

- A comparison of the RoRs with only male owners and only female owners, which show the mortgage of land against loans; and

- A comparison of the proportion of the total number of male owners and total number of female owners in the khatas with loans using land.

The analysis shows a higher proportion of RoRs (Figure 8) with only male owners, taking loans as compared to RoRs with only female owners, taking loans (except in Madhya Pradesh). The owner-wise trend shows that land ownership is highly skewed towards males. The inordinate extent to which land ownership is vested with males is further compounded by the fact that even where they own land, except in Gujarat, women are less likely to avail of credit against such property for any purpose (Figure 9).

**Figure 8: Gender Distribution in the RoRs**

![Gender Distribution in the RoRs](image)

*Source: Authors’ calculations based on N-LRSI 2020 data.*

*Note:*

a) Information relating to the names of owners taking loans is given in Himachal Pradesh, Uttar Pradesh, and Uttarakhand.

b) Information relating to the names of owners taking loans is not given in the remaining States.
Figure 9: Gender Division (Owner-wise)

Source: Authors’ calculations based on N-LRSI 2020 data.

Note:
a) Information relating to the names of owners taking loans is given in Himachal Pradesh, Uttar Pradesh, and Uttarakhand.
b) Information relating to the names of owners taking loans is not given in the remaining States.

5. Conclusion

The significance of access to credit for an emerging economy like India cannot be understated. From the lenders’ perspective, the role of collateral is quite critical and land is one of the most commonly used collaterals. Despite the significance of land as an asset for accessing formal sources of credit, it has not been given due attention in the literature. Moreover, as land is a state subject, there is a need to understand the State-wise pattern in this context. The conditions across States vary and the manner of recording can also vary, with implications for use of land as collateral while taking loans. However, reliable State-wise information is seldom available. What we have, in general, are hypotheses based on national sample surveys. This paper has attempted to fill this gap in the literature by providing State-specific estimates relating to the use of land as collateral. The paper has used RoR samples for the NCAER Land Records and Services Index (N-LRSI 2020) for six Indian States—Himachal Pradesh, Uttar Pradesh, Uttarakhand, Madhya Pradesh, Chhattisgarh, and Gujarat. The different nature/extent of availability of mortgage information in the State-specific RoRs limited the extent to which a comparative analysis could be made across all the States. Still, it was possible to draw some conclusions about the position of the six States in relation to the understanding derived from national surveys, on a number of matters.
Out of the total sample considered in this paper, 25.3 per cent of the RoRs exhibited instances of loans against land. If these landholdings are taken to be a proxy for households, this is only marginally higher than the 22.37 per cent rural households estimated using NAFIS data for the whole country. Of course, there is considerable variation across the six States, which is worthy of further examination.

Overall, the analysis indicates that the use of land as collateral is a common practice in Indian States, though the extent of this use varies. The literature postulates that landowners with large-sized landholdings are more likely to access formal credit sources, and it has been explained by the greater possibility of use of land as collateral by these landowners. The analysis in this paper validates this understanding by showing that the RoRs recording loans have a higher average area and higher area per owner as compared to the RoRs against which there is no record of loans having been taken. An attempt was also made to understand if larger landholdings are likely to have a proportionately higher value of loans against them by comparing the loan sizes of the above- and below-average landholding size categories. However, the findings exhibit an ambiguity in this regard. Only three States, viz., Gujarat, Uttarakhand, and Chhattisgarh show that the loan size for the RoRs with above-average landholding sizes is proportionately larger.

One of the primary reasons cited for the lower degree of use of land as collateral for credit is the poor quality of land records in Indian States. One of the indicators of the quality of land records is the extent to which the records reflect joint ownership (or possession) on specific plots. The prevalence of a large number of joint owners reduces the chances of use of land as collateral, as it complicates the entire process. The analysis of data for these six States makes it clear that where the collateral is recorded by name against specific landowners, even in a joint holding, this is not the case. However, in States where the collateral is recorded against all owners in the entire holding, the use of land as collateral for obtaining loans does tend to be less. The gender-based analysis of the use of land as collateral in obtaining loans shows that in most States, the skew against women in land ownership is further compounded in relation to their access to institutional credit.

This paper is a preliminary exercise aimed at examining the State-wise status in relation to the nationally-held understanding on various facets of the use of land as collateral for availing of institutional credit. It shows that there are wide variations among States; that there is no gainsaying the fact that more accurate and up-to-date records will always improve access to credit but even then, making credit available to the less advantaged categories like women and small and marginal landholders will require special effort at changing behaviour across society and institutions. In effect,
the paper makes a case for a more regular analysis of State-level data in order to come up with more meaningful and specific suggestions for policy in these matters.
### Table A1: Comparison between NLRSI and NAFIS Sample

<table>
<thead>
<tr>
<th>S. No.</th>
<th>States</th>
<th>Sample NLRSI RoRs</th>
<th>NLRSI State Proportion</th>
<th>NAFIS-Surveyed HHs</th>
<th>NAFIS State Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Uttar Pradesh</td>
<td>2670</td>
<td>34.48</td>
<td>3924</td>
<td>36.96</td>
</tr>
<tr>
<td>3.</td>
<td>Chhattisgarh</td>
<td>1013</td>
<td>13.31</td>
<td>1348</td>
<td>12.70</td>
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<tr>
<td>4.</td>
<td>Gujarat</td>
<td>1367</td>
<td>17.65</td>
<td>1403</td>
<td>13.21</td>
</tr>
<tr>
<td>5.</td>
<td>Himachal Pradesh</td>
<td>419</td>
<td>5.41</td>
<td>968</td>
<td>9.12</td>
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<tr>
<td>6.</td>
<td>Uttarakhand</td>
<td>675</td>
<td>8.71</td>
<td>982</td>
<td>9.25</td>
</tr>
<tr>
<td>7.</td>
<td><strong>TOTAL</strong></td>
<td><strong>7744 (B)</strong></td>
<td></td>
<td><strong>10616 (D)</strong></td>
<td></td>
</tr>
</tbody>
</table>
References


NABARD. 2018. NABARD All India Rural Financial Inclusion Survey (NAFIS) 2016-17.

Narayanan, S. 2016. The productivity of agricultural credit in India. *Agricultural Economics*.


RBI. 1951. *All India Debt and Investment Survey*.


