Land as Collateral in India

SUDHA NARAYANAN, JUDHAJIT CHAKRABORTY

Although land is regarded as an ideal collateral for both borrowers and lenders, it is not used as one in developing countries like India for a variety of reasons. This use of land as collateral for borrowings by Indian households is mapped using data from the All India Debt and Investment Survey of 2012–13. The extent and patterns of the use of land as collateral are documented, supplemented with insights from a field survey in select talukas of Maharashtra that examine borrower perceptions of such use.

The authors would like to thank the participants of the round table on Land and Access to Finance, organised by the Finance Research Group at the Indira Gandhi Institute of Development Research, and the anonymous referee for comments and suggestions. The qualitative evidence comes from a survey funded by the Omidyar Network as part of a project titled "Pilot Impact Assessment of the Government of India's Digital India Land Records Modernization Programme."

Sudha Narayanan (*sudha@igidr.ac.in*) is with the Indira Gandhi Institute of Development Research, Mumbai. Judhajit Chakraborty (*chakra57@msu.edu*) is a doctoral student at the Michigan State University, East Lansing.

A long history of research on land titling emphasises the link between clear land titles and credit access. Several studies argue that clarifying land titles enables greater use of land as collateral and hence improves access to credit from formal institutions, especially where the enforcement of credit contracts is weak (de Soto 2000; Deininger 2003). Based on this premise, a number of countries have made efforts and implemented policies relating to land titles. Despite these long-standing arguments on the presumed positive impact of land titles and credit access, existing empirical evidence suggests a more complex relationship. In particular, studies show that several conditions need to be in place for land to serve as collateral and clear titles is just one of them; it alone is not sufficient to ensure credit access. Thus, while land titling is important to achieve broader economic gains, one should not expect titling to automatically improve credit access from formal institutions (Domeher and Abdulai 2012; Sanjak 2012).

This article is an invitation to examine this debate in the context of household debt in India. Currently, while there is a perception that a bulk of household debt in India is unsecured, there is not much data on the extent of the use of collateral, especially land. The sparse research that exists on this subject puts forth different estimates. At the same time, the broad discourse pivots on the idea that land titling is key to improving formal credit access (for example, Morris and Pandey 2009).[1] The Digital India Land Records Modernization Programme (DILRMP) completed a decade in 2018, focused at streamlining title records. These efforts are taking place in a context where, despite the spread of formal institutions and better management of land records, informal debt still appears to dominate the landscape of household finance (NABARD 2018; Pradhan 2013).[2]

The first objective of this article is to review the theoretical basis and empirical evidence worldwide on the causal link between land titling and credit access to help define the contours of the debate in the Indian context. The second is to map the use of land as collateral by households in rural and urban India using the All India Debt and Investment Survey (AIDIS), 2012–13. Finally, we try to ascertain the possible reasons for the use (or not) of land as collateral drawing on a primary survey in two blocks, one each from two different districts in Maharashtra, collected as part of a larger project on digitising land records.

Conceptual and Empirical Perspectives

Rationale for land as collateral: In theory, land is eminently suitable as collateral (Sanjak 2012). It is fixed, not mobile, and hence reduces the lender's monitoring cost. It is appropriable, that is, the ownership of the collateral can be easily transferred to the lender in the case of a loan default. It can also be sold easily and the lender can liquidate the asset quickly to recover the losses associated with the non-payment of the loan. It is durable during the period of contract. Over time, the collateral typically does not depreciate in value. Indeed, for loans associated with an interest rate, the collateral's value at the time of sale to recover bad debt must cover the loan and its interest dues. For the borrower, there is substantial loss associated with the loss of the collateral in the case of bad debts; this reduces the possibility of strategic defaults, thus effectively doing away with the problem of moral hazard. Also, from the borrower's perspective, the transaction costs of using land as collateral must not be too high and must directly relate to the loan amount and terms. In many contexts, land meets this requirement.

Causal links from land title to credit access: The key proponents of property rights reforms saw land titles as a catalyst for credit access. Easy access to information provided by the state on a parcel of land with respect to its ownership, size, value, past encumbrances, etc, enables borrowers to assess the potential for that parcel to serve as collateral in a loan transaction. Theoretically, therefore, access to low-cost information (typically a public good provided by the state) on land rights reduces the risks and inefficiencies like credit rationing (Stiglitz and Weiss 1981). On the borrower's side, a farmer's ability to provide collateral, increased tenurial security, and consequent willingness to invest are likely to increase credit demand.

Thus, a platform for easy access to essential information on land would lead to an increase of land as collateral and further an increased access to credit. Modernisation of land records, clearly defined land titles, mapping, standardising valuation of land and access to transparent information on land parcels, etc, are all believed to have a positive impact on various social and economic outcomes, in part due to increased use of land as collateral and an increased access to credit.

Empirical evidence: Yet, several existing impact assessments fail to find significant credit supply response and the impact seems to be heavily conditional on the context (Sanjak 2012). Using survey data on bankers from Indonesia, Dower and Potamites (2005) observe that land titling leads to an increase in access to formal credit. They attribute this increase to the "indirect signal" the title provides to the formal lender and not to the value it bears. One common finding is that the link is conditioned on the availability of credit supply. Feder and Nishio (1998) find land titling the most effective when robust financial markets exist. Pender and Kerr (1999) find in semi-arid India that land rights had scant effect on credit because of the scarcity of formal credit sources in the survey areas.

Byamugisha (1999) finds that land titling in Thailand had significant positive effects in the long run, whereas it is negative in the short run. The latter is attributed to price increase and speculations associated with land titling. Carter and Olinto (2003) find that a land titling programme helps only medium and large farmers in terms of access to credit in Paraguay, because they have higher investment demand and are better placed to take advantage of higher credit supply. Field and Torero (2008) find a causal relationship between land titling and credit access, but this only holds when the lender is a state bank. Macours (2009) studies 20 communities in Guatemala and finds that the impact of land titling on plot use and credit access varies based on the predominance of conflicts across these communities. The existence of conflict then implies that conflict resolution mechanisms play an important role in the effectiveness of land titling on plot use and credit access. According to the author, "a title's value and effects are likely to depend on whether a formal title helps secure a property rights and on whether there are alternative mechanisms that might secure such rights" (Macours 2009: 19). In India, computerisation of land registration in Andhra Pradesh increased access to credit in urban areas only (Goyal and Deininger 2010). The cost of acquiring information does not reduce for rural areas because registration information (obtained at the taluka headquarters) and land records (obtained at the village level) remain unintegrated. Other evidence from India seems to suggest that clearer titles to land tend to facilitate borrowing from informal sources as much as from formal sources (Mowl 2016). For Sri Lanka, Besley et al (2012) show that property rights have an impact on credit access only when these foster competition among lenders and only for wealthier borrowers.

Overall, therefore, titling seems to increase access to credit only in urban areas, for more well-off clients or larger farmers, only in the long run, and mostly from public institutions and/or informal sources. Further, there is evidence to suggest that title to land might be only one signal of credit worthiness; offering it to the poor may not necessarily make them bankable. The mechanisms that inhibit a direct impact of titling on access to credit are most often linked to the social, institutional, and organisational dynamics of the country or region of study. The non-availability of formal credit, absence of robust financial markets, legal enforceability on non-transferability of land, and varying social perspectives on use of land as collateral are all examples of social and institutional settings that hinder the direct impact of titling on credit access.

Land as Collateral in India: Extent and Patterns

In the Indian context, there is a lack of nationwide surveys that explicitly report the nature of collateral used for secured loans. Even when they do, barring a few exceptions, these have not been widely reported at the country level. The Committee on Household Finance (2017) suggested that, nationwide, mortgage loans account for only a small part of total liabilities (23%) and that most Indian household debt is unsecured (56%). Other estimates suggest a much wider use of immovable property or land as collateral. One set of estimates suggests that nearly 50%–60% of all retail loans are indexed to real estate (Krishnan et al 2016). They add that about 80% of all corporate debt is secured, of which about half of all term loans are collateralised against land and buildings. Among agricultural loans, more than 80% of all loans reportedly have land as collateral. However, only 10% use land as collateral from informal and unorganised lending sectors (Rajeev et al 2011). These studies use different units of analysis (loan level, household level, etc), different samples, and different data sets.

Field studies at the micro level on the use of land as collateral present a complex picture. Although many of these studies are from the 1980s, it is evident that the landscape of collateral-based lending has not altered much. Early studies from rural areas reveal that land is kept as a last resort for borrowing and is only used as collateral in cases of emergencies; land is also considered a high-quality asset and is thus used only when a large loan is needed (Sarap 1991).

Using survey data from Odisha in the 1980s, Sarap (1991) shows that the system of guarantee available to the lenders is much more nuanced and diverse than assumed in the theoretical literature. He finds that, at the time of the survey, around three-fourths of all loans were against some collateral: greater for small and marginal farmers in both wet and dry areas and declining with the rise in economic status of the borrower. A wide range of collateral was used, including land, gold, and utensils; the share of loans against land, gold, and brass utensils was 41% in dry areas and 31% in wet areas. Amongst marginal and small farmers, this was between 41% in dry areas and 48% in wet areas. Sarap (1991) also found that land was used as collateral only for emergency loans and where the demand for such a loan was inelastic (such as a medical need or a daughter's marriage). For marginal and small farmers, 91% of the loans borrowed against land collateral was for the marriage of a daughter and medical purposes. The rest 9% was for subsistence consumption.

Swaminathan (1991) draws on two village studies to find that collateral often formed the basis of segmentation between the formal and informal credit markets. Informal lenders were more likely to lend without collateral and accepted a wider range of collateral: gold, jewellery, household goods, land mortgages, building, hut, etc. Formal lenders were more reluctant to use movable collateral other than gold and promissory notes, although they too lent frequently without collateral. While credit from the formal sector was mainly channelled to productive activities, most of the informal borrowings were for generalised household consumption.

Another phenomenon well documented in the context of rural India is the undervaluation of the collateral (Sarap 1991; Swaminathan 1991). Sarap (1991) found, for example, that on average, borrowers got loans worth about 40% of the market value of land with marginal farmers securing loans as low as a third of the value of land. In the case of default, it is likely that the lender actually stands to gain and as such bears little risk from lending. Swaminathan, on the other hand, found that land was less likely to be undervalued relative to other types of collateral. She also found that the different types of collateral used correlate with interest rates.

Recent trends in household credit suggest that the complexity of the lending landscape persists. Mowl (2016) documents a rich variety of credit contracts in rural and urban Tamil Nadu, where a large number of items serve as collateral, ranging from land, vehicles, to mobile phones. She elaborates specifically on the role of land titles in enabling access to credit. She notes that, according to respondents, while both formal and informal lenders require primary documents such as a land patta, sale deed, and encumbrance certificate, formal lenders require additional documentation such as land *chitta*s and no objection certificates. Further, formal financing operations often only grant loans on developed properties (if in urban areas), unlike informal lenders. She observes that formalisation of titles itself may not increase effective access and suggests, for example, that digitisation of land titles, intended as a tool for inclusion and to increase formal access and transparency, has created returns on information for informal providers as well. While it may increase access to credit, it may not necessarily encourage borrowing from formal sources.

The emergence of gold loans, even in the formal sector, is also relevant (Nair et al 2014). Even in states that have modernised land records and where land titling is clearer, it seems that gold rather than land is the preferred collateral for the banking system. For example, data on bank borrowings in 2014–15 from a survey of banks from three districts in Karnataka showed that 86.2% of all short-term crop loans were against gold as collateral (Rajeev and Nagendran 2018). Nair et al (2014) highlights that using gold as collateral reduces the transaction costs of lending, and ensures a low probability of default due to sentiments attached to gold and a way to meet lending targets by expanding the potential borrower base to those who may not have land.[3] In general, the informal sector continues to accept a wider range of collateral than the formal sector; it appears that even with collateral, the informal sector has clear advantages in terms of minimal documentation and transaction costs and only formal sector loan products that share these attributes find wide use.

Data and Methods

We use data from a nationally representative sample (70th Round National Sample Survey 2013) of agricultural households collected in Schedule 18.2 between January and December 2013 by the National Sample Survey Office (NSSO). Called the AIDIS, this survey on assets and liabilities of 22,027 rural and 15,243 urban households across most states in India has served as the source material for a number of key works that map household indebtedness in India, including the Committee on Household Finance (2017). However, it remains underutilised (Satyasai 2002). One such neglected aspect is the issue of security and collateral (Rajeev and Nagendran 2018). In this article, we focus on one aspect of household finance covered in Block 14 of the Schedule.[4] We restrict our analysis to loan outstanding as measured at a point of time and loans taken over the recall period. The survey records the amount of loan, source, terms, and whether or not it is secured through some means. We interpret the use of immovable property for security as the use of land as collateral, recognising that while this might be true of rural areas, in urban areas, immovable property is most likely to be built structures (with a building, house, or apartment).

While the AIDIS remains the only authoritative source of nationally representative data on debt position of households, critics have pointed out that the estimates of indebtedness in the AIDIS are lower than those emerging from village level studies or data from the Basic Statistical Returns of Banks (Chavan 2012).[5] These remain important caveats in our work.

Use of Land as Collateral: Estimates and Patterns

Earlier work using the AIDIS noted that the share of non-institutional credit in the rural areas fell continuously over time until 1991. Between 1991 and 2001, however, the share of non-institutional credit increased from 36% to 43%, with professional moneylenders as the largest source of non-institutional credit (Pradhan 2013). In 2012–13, the percentage of loans that were sourced from non-institutional sources stood at 44% in rural areas and 15% in urban areas (70th Round Report-577, NSSO). This is corroborated by other surveys such as the NABARD All India Financial Inclusion Survey (NAFIS), which suggested that 32% of rural households surveyed relied exclusively on non-institutional sources, with an additional 9% using both institutional and non-institutional sources (NABARD 2018). The NAFIS further notes that a quarter of those who sought loans did not have collateral (NABARD 2018). The AIDIS, in 2012–13, too suggests that Indian households, whether rural or urban, rely overwhelmingly on unsecured loans, most of which are on the basis of personal security (58.1% in urban and 61.8% in rural areas; Table 1).

As one would expect, the proportion of loans that are against personal security is much higher with loans from non-institutional relative to institutional sources. Bullion, ornaments, and financial assets are more important as collateral for institutional sources than non-institutional sources, and even more so in the case of urban rather than rural areas. There are systematic differences between the type of collateral preferred by institutional versus non-institutional lenders. Bullion as collateral is more common for loans from cooperative banks, commercial banks and financial companies/corporations and institutions. This reflects the growth of agrigold loans in recent years (Nair et al 2014). In urban areas, professional moneylenders are the ones most likely to use bullion. Land as collateral is more common when the lenders are input suppliers who tend to rely on mortgage on immovable property. In rural areas, insurance companies too rely on mortgage and first charge on immovable property.

Mortgage of immovable property is more prevalent than those reporting first charge on immovable property; only 3.5% of rural households and 1.4% of urban households report the latter suggesting that multiple mortgages are uncommon. In general, the use of immovable property as collateral, either as mortgage or first charge, seems fairly low, except for mortgage of immovable property in rural institutional borrowings, which is at 22.2% of all such loans (Table 1). Of institutional borrowings in rural areas, 28% are against mortgage of or first charge on immovable property. Virtually, all of these are agricultural loans from banks. It is noteworthy, but unsurprising, that in rural areas, the use of immovable property is 13 times higher for institutional sources than for non-institutional sources. This likely reflects the preponderance of crop loans against land. The use of immovable property as first charge is dominated by the government, cooperatives, and commercial banks as sources of finance. In each occupation category, the proportion of borrowers in rural areas using land as collateral is higher than in urban areas (Table 2). Those in agriculture are the highest; however, even within agriculture, the percentage of households using land as collateral is only 22.5%.

The AIDIS data confirms several observations from microstudies. Loans that use land as collateral are associated with higher ticket size. While 11.5% and 7.9% of total value of all loans use land as collateral in rural and urban areas, respectively, in terms of number of loans, only 2.9% and 4.5% of the number of all loans do so. Also, the average loan outstanding for the use of land is higher on average than that of other collaterals. Loans against personal security are the lowest in size. Comparatively, loans using immovable property for mortgage or first charge are 10–12 times that of personal security in urban areas, and two to three times that in rural areas (Table 1). It seems to be an enduring feature of rural credit that land represents a high quality asset and as the price of land too increases, land is only used when households seek larger loans (Sarap 1991).

Table 1: Collateral Use in Borrowings—Share of Loans by Source and Location

	Percentage of Loans						Average Loan Size (₹000)		
	Urban			Rural					
	Institutional Sources	Non-institutional Sources	Both	Institutional Sources	Non-institutional Sources	Both	Urban	Rural	All
Personal security	37.2	81.5	58.1	35.9	85.7	61.8	45.3	27.7	32.1
Bullion/ornaments	33.8	12.0	23.5	20.4	6.4	13.1	73.1	45.8	56.5
Financial assets	1.6	0.0	0.8	0.5	0.0	0.2	175.0	57.4	124.7
Surety/third party	8.3	2.4	5.5	7.2	2.6	4.8	107.6	43.3	62.1
Mortgage of immovable property	9.3	1.2	5.5	22.2	1.7	11.5	561.4	91.9	160.9
Other type of security	3.8	2.0	3.0	2.7	2.7	2.7	121.3	42.4	64.9
Other movable property	3.4	0.7	2.1	1.6	0.4	0.9	234.3	113.6	168.1
First charge on immovable property	2.1	0.2	1.2	5.8	0.3	3.0	449.1	76.3	123.4
Crop	0.6	0.0	0.3	3.3	0.3	1.7	116.6	59.9	63.5
Agricultural commodities	0.0	0.0	0.0	0.5	0.0	0.3	49.5	44.9	45.0
All	100	100	100	100	100	100	95.9	41.5	55.9

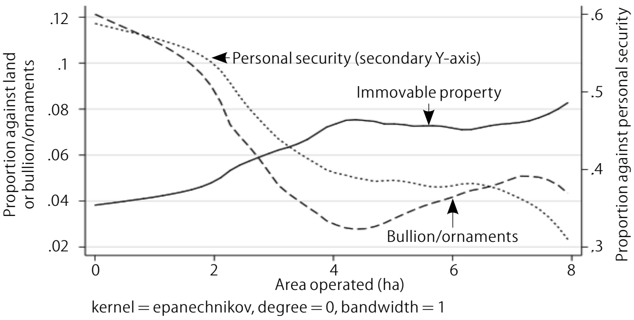
Source: Computed by authors from AIDIS data.

Table 2: Occupation-wise Use of Immovable Property as Collateral

Occupation	Share of Households Using Immovable Property as Collateral (%)			Ratio of Households Using Immovable Property to Those Using Other Forms of Security		
	Urban	Rural	All	Urban	Rural	All
Self-employed	10.3	–	10.3	0.10	–	0.10
Self-employed in agriculture	–	22.5	22.5	–	0.25	0.25
Self-employed in non-agriculture	–	11.6	11.6	–	0.11	0.11
Regular wage/salary earning	7.3	9.7	8.3	0.07	0.09	0.08
Casual labour	2.8	5.0	4.3	0.02	0.05	0.04
Others	5.5	5.5	5.5	0.05	0.05	0.05
All	7.3	14.5	12.7	0.07	0.15	0.13

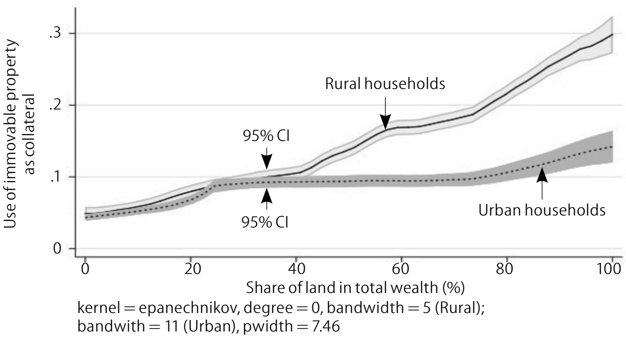
Source: Computed by authors from AIDIS data.

Figure 1: Use of Security vis-à-vis Area Operated (Visit 1)



Source: Calculated by authors using AIDIS data.

Figure 2: Share of Land in Wealth and Use of Immovable Property as Collateral in Rural and Urban Areas (Visit 1)



Source: Calculated by authors using AIDIS data.

There are differences in the purpose of the loans when land is used as collateral versus those against other forms of security. For instance, among rural households, whereas 74% of loans against the mortgage of immovable property is directed to support economic activities, farm and non-farm (with 24% diverted to personal, household needs, and medical/educational expenditure), the reverse is true for loans secured by bullion and ornaments. In the latter case, almost 80% is for household expenditures, with only close to 20% directed at supporting economic activities (Table 3, columns 1 and 2 versus 3 and 4).

Further, single owners are more likely than joint owners to use immovable property as collateral, but the odds are higher in rural areas; twice as likely in rural areas and 1.2 times in urban areas. Given that many records are not updated or property has not been subdivided, it is not uncommon in rural India to have multiple owners or joint ownership for a parcel of land. In these circumstances, it is harder for a specific household/owner to use that parcel as collateral for a loan. Thus, among rural households who had full ownership of land, 15.6% of those who reported any cash loan used immovable property as collateral. Among respondents who said they had only partial ownership of land, only 7.3% used immovable property as collateral. The corresponding figures for the urban areas were 2.3% and 1.9%, respectively.

There is also a clear pattern on what kind of borrowers use land as collateral. While a greater proportion of those with less land use bullion/ornaments rather than land as collateral, this pattern reverses as land owned by the household increases (Figure 1). Households that own larger pieces of land are more likely to use land as collateral over bullion/ornaments. It is also apparent that as the share of land in total wealth increases, it is more likely that the household uses land as collateral (Figure 2), implying that even if land might be the collateral of the last resort, when land is the only or most important asset or the only high quality asset the household has, it is more likely to be used as collateral.

While the use of land as collateral is clearly driven by household characteristics, there are also larger policy issues, conventions and practices that influence the use of land as collateral. Figure 3 (p 50) shows the spatial variation in the use of land as collateral for borrowings in rural areas; Figure 4 (p 50) shows the variation for urban areas. It maps the percentage of households in rural areas using land as collateral at the NSS-region level.[6] There are clear spatial patterns in the extent of use of land as collateral and there are potentially several explanations for this (Figure 5, p 51). For example, in many states, where land titles and records are not clear, there appears to be a clear preference of lenders for bullion/ornaments that offer more flexibility as collateral than does land.

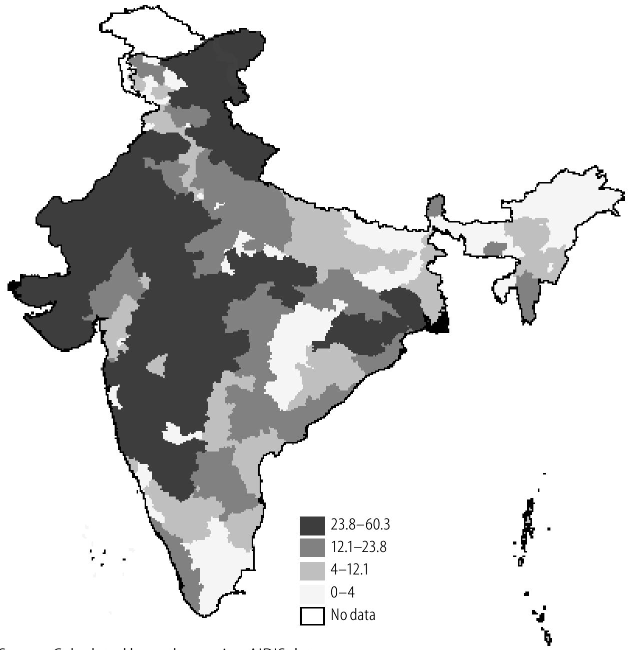
While gold was always popularly used as collateral, the growth of agrigold loans in formal financing is a relatively recent phenomenon (Nair et al 2014). Rajeev and Nagendran (2018), for instance, point out that in the middle- and high-income districts, there is a possibility that gold loans are crowding out

Table 3: Purpose of Loan by Collateral Use (Figures in Percentage)

Type of Security	Capital and Current Expenditure in Farm Business (1)	Capital and Current Expenditure in Non-farm Business (2)	Financial Expenses (Investment, Litigation, Debt Repayment) (3)	Personal, Household Expenses (4)
Urban				
Surety security or guarantee of third party	9.7	22.3	2.0	66.1
Crop	86.9	0.0	0.0	13.1
First charge on immovable property	28.3	10.2	2.8	58.6
Mortgage of immovable property	22.0	11.7	3.4	62.9
Bullion/ornaments	4.9	8.1	9.3	77.8
Share of companies, government securities, insurance policies, etc	1.6	7.8	2.4	88.2
Agricultural commodities	61.5	6.4	0.0	32.1
Movable property other than bullion, ornaments, shares, etc	1.0	26.3	0.9	71.9
Other type of security	2.4	15.4	3.2	79.0
Personal security	2.6	12.7	3.0	81.7
Total	5.1	12.3	4.4	78.2
Rural				
Surety security or guarantee of third party	26.5	13.6	3.8	56.1
Crop	91.2	1.6	0.0	7.2
First charge on immovable property	76.9	3.1	0.6	19.5
Mortgage of immovable property	72.6	3.1	1.9	22.4
Bullion/ornaments	14.2	5.6	7.2	73.1
Share of companies, government securities, insurance policies, etc	40.7	6.7	9.6	43.0
Agricultural commodities	83.3	1.5	0.0	15.1
Movable property other than bullion, ornaments, shares, etc	37.3	13.5	3.1	46.1
Other type of security	25.8	7.9	1.9	64.5
Personal security	15.5	5.5	2.3	76.7
Total	26.2	5.6	2.9	65.3

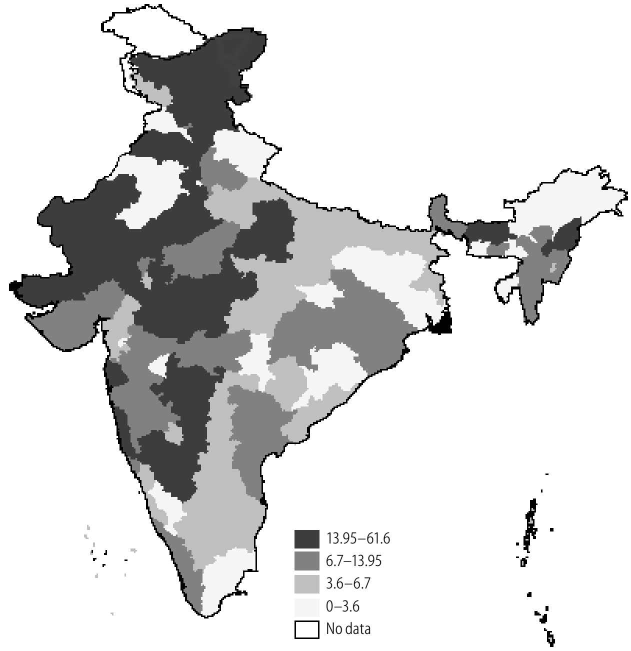
Source: Computed by authors from AIDIS data.

Figure 3: Spatial Distribution of Use of Immovable Property as Collateral (Rural, Visit 1)



Source: Calculated by authors using AIDIS data.

Figure 4: Spatial Distribution of Use of Immovable Property as Collateral (Urban, Visit 1)



Source: Calculated by authors using AIDIS data.

land-linked loans. It is in the absence of gold that banks seem to opt for land-linked loans. The expansion of the banking system and bank branches along with banking practices and preference for meeting priority sector lending targets could influence which collateral is more commonly used for loans.

It is also possible that landholding, land tenure, and tenancy patterns influence, via landownership, the extent to which cultivator households use land as collateral, although there is not much research on these links. The spatial variations in the use of collateral could, in this case, merely reflect the landownership patterns. For example, where tenancy is more common, especially among landless households who lease in land for farming, the use of land as collateral is unlikely to be significant. Spatial variations in the emergence of self-help groups and microfinance institutions could also shape the forms of collateral that dominate in different areas.

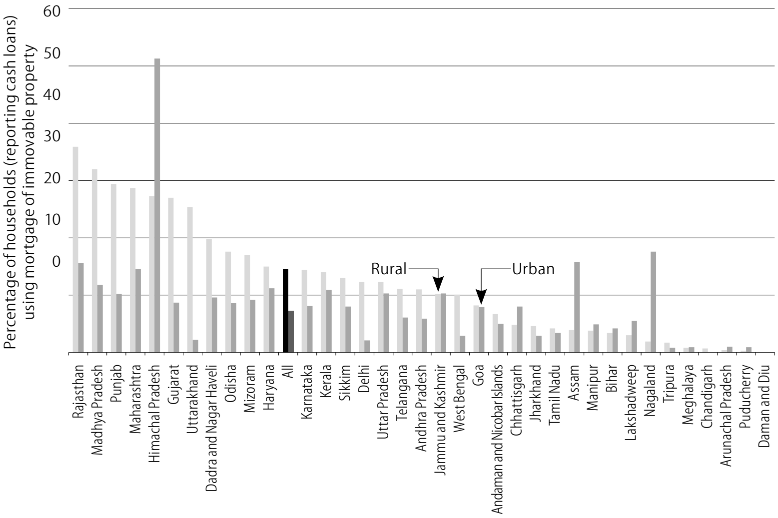
Insights from the Field on Low Use of Land as Collateral

Why is the use of land as collateral so low? Existing literature suggests that there may be several reasons for this. One crucial factor is indeed that land records are largely poorly maintained. Despite the efforts of land record modernisation (IGIDR 2017; Sanan et al 2017), much work is still to be done. Multiple owners staking claim to a parcel of land is one challenge. Often, the land is still in the name of ancestors, who may have passed away implying that the land cannot be used as collateral by the borrower; encumbrances are not often recorded and updated. Further, communal ownership and shared use of land in many rural areas also make it infeasible to use land as collateral. Apart from this, it has been suggested that the quality of an asset as an ideal collateral is not absolute and is institutionally and socially determined. This suggests that people may attach values to land that prevent them from using it as collateral. The poor, for instance, may deem the land too valuable to risk using as collateral. Also, the value around bequeathing land to progeny may also prevent households from collateralising land.

High transaction costs to the borrower of using land as collateral can also be barriers. For example, Rajeev and Nagendran (2018) point out that for farmers in Karnataka, agrigold loans require less documentation as farmers only need to show a proof of cultivation activity (at times, even a signed letter from the tahsildar was deemed sufficient). To use land as collateral, a no dues certificate from every bank branch in the taluka of the branch was required. Alternatively, as Sarap (1991) points out, land, a high quality asset, might only be used for large loans and these needs may be fewer or used only during emergencies.

The willingness of lenders to accept loan as collateral is low if enforcement is low, or if the legal system does not support the transfer of land in case of a default. As Rajeev and Nagendran (2018) point out, the Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest (SARFAESI) Act, 2002 governs loan recovery mechanisms and banks are obliged to initiate any loan recovery process only under this law. Under the act Section 31(i), the provisions do not apply to "security interest (collateral) created in agricultural land," including the provisions of Section 13(a), which allows creditors to enforce repossession of security interest. In effect, there is no legal recourse for loan recovery through repossession of land by banks if land is used as collateral and there are defaults. Further, as Nair et al (2014) point out, gold loans have emerged as important since it requires minimal documentation, less effort on verifications on the part of bank staff, and quick disbursement of loans relative to when land is used as collateral. The bankers too may prefer to use other collateral for many reasons.

Figure 5: Statewise Percentage of Households with Immovable Property as Collateral (Rural and Urban)



Source: Calculated by authors using AIDIS data.

To get a better sense of these issues, we draw on a field survey of 102 owners of land parcels sampled randomly across 20 villages in Palghar and Mulshi talukas in Maharashtra. The survey conducted in 2016–17 focused on land record modernisation and, as part of this, we asked landowners about their perceptions and use of land as collateral and as a form of wealth.[7] Despite clarity of titles, that is, ownership was clear, and complete concordance of the records with reality with respect to ownership, only 11% used land as collateral for loans/mortgage, half of whom borrowed from the cooperative society locally. All those who borrowed against land as collateral typically raised loans for agriculture.

Given that in most cases titles were clear, whether or not land was used as collateral seemed to be a matter of preference and respondents offered diverse views. Many said that loan is "instant" if one uses land; some mentioned that they get more loans, and others suggested they were able to borrow a larger amount. Those who had not used land as collateral said that they would only use it if they needed a very large loan and they had not required to do so thus far. At the same time, many were reluctant to use land as collateral as it is the "only thing" they have. Those who typically do not use land as collateral reported using gold instead; they also mentioned that as long as gold was available, this was the preferred collateral. "Land is like a mother," said some, emphasising the value they attach to land and that they would never use it as collateral; others said that using land as collateral would be the last resort.

Table 4: Land as Wealth and Collateral—Insights from Maharashtra, 2016–17

	Details		Number of Valid Responses
1	Proportion who say land is the single most important form of wealth	87.25%	102
	— those who say land is among the most important sources of wealth	94%	
2	Proportion of sample for whom reality mirrors records		
	— in terms of ownership	99%	102
	— in terms of possession	94%	102
3	Proportion of sample who use land as collateral	11%	102
4	Proportion of sample parcels with multiple owners	61%	102
5	Reasons for using land as collateral		
	1 Easy to use		11
	2 Quick money		11
	3 Larger loans		11
6	Reasons for not using land as collateral		
	1 No need as yet	34	85
	2 Would not use land as collateral	13	85

Source: Survey data.

Land (along with jewellery) seemed to be the most preferred form of storing wealth. Respondents were unanimous in stating that if they defaulted on a loan for which land was collateral, nothing would happen and that when land is used as collateral, it was rarely enforceable in the case of a default. It was also apparent, for many, that the ownership status on record matched with reality. That despite this, there is a reluctance to use land as collateral suggests a number of potential issues. First, the value attached to land by its owners might go beyond simply its monetary value so that using land as a part of an economic transaction was inadmissible. Second, it could be that the transaction costs of interacting with the formal banking system are onerous. Third, the phenomenon of multiple landowners for a given parcel might make it harder to use land as collateral (Table 4). A bulk of the sample parcels had two owners; close to a quarter—24%—had more than five owners as per the Record of Rights. Thus land titles, even if clear, might be complex.

Conclusions

The goal of this article was to provide an overview of the use of land as collateral for credit in India. Several facts stand out in the analysis. First, the use of land as collateral is relatively low (as compared to many developed countries and emerging economies), and unsecured loans based on personal security still dominate the landscape of household debt in both urban and rural India. Second, the use of land as collateral varies substantially across both regions and households. Many of these are along expected lines. Those for whom land constitutes a greater proportion of wealth are more likely to use land as collateral; the use of land as collateral is also associated with higher loan values. Third, our analysis documents the persistence of several phenomena/patterns that have emerged from field studies in the 1980s, suggesting that despite the rapid growth of formal institutions of finance and also perhaps of land records modernisation, a significant shift to the use of land as collateral is yet to take place. This is despite the fact that when land is used as a collateral, in the case of a default, very rarely is the loan recovered by taking possession of the land. Our field research points to norms and values that people attach to land as perhaps a constraining factor.

Our study does not directly attempt to answer the question as to whether land titling issues/land market structure are binding constraints in access to finance or whether it is on account of credit market failures. These might well be the case in many contexts. In other contexts, it is possible that even with titling, the use of land as collateral requires other enabling conditions. From the borrower's perspective, the borrower should have the clear title and must have the capacity to repay the loan against land, which tend to be of higher value. The borrower should be able to register the mortgage and have the option of foreclosing the loan. From the lender's perspective, accepting land as collateral should either imply higher certainty of repayment—given how valuable land is to the borrower—or alternatively the ability to monetise the collateral should the borrower default. Moreover, the transaction costs of offering and accepting land as collateral for loans must be low enough relative to the loan size. In a socio-economic context such as India, each of these conditions requires significant policy effort. While there have been impressive efforts in several areas, it might be a while before the conditions are conducive for households, especially those with limited immovable property, to use land as collateral to raise productive capital. In other words, the project of expanding formal finance would require looking beyond land as collateral.

NOTES

1 This is articulated in the popular press as well. See, for example, https://www.livemint.com/Opinion/RqVa2F89ZKwcFPdvYOUu3M/Opinion-The-need-for-digitizing-land-records-in-India.html.

2 India has a long history of policy interventions geared to expand the reach of formal finance.

3 Priority sector lending targets that mandate a certain proportion of lending should go directly to cultivators also prompts bankers to expand lending to cultivators.

4 Particulars of cash loans payable by the household to institutional/non-institutional agencies as on the date of the survey, and transactions of loans from 1 July 2012 to the date of the survey. For details on the data, see Narayanan and Chakraborty (2019).

5 For earlier assessments of AIDIS data, see Economic & Political Weekly Research Foundation (2006) and Narayana (1988).

6 The NSS clusters districts within a state into different regions. For the map, we attribute the value of each NSS region to its constituent districts.

7 The survey was part of a larger project described in http://www.ncaer.org/publication_details.php?pID=284.

REFERENCES

Besley, T J, K B Burchardi and M Ghatak (2012): "Incentives and the de Soto Effect," *The Quarterly Journal of Economics*, Vol 127, No 1, pp 237–82.

Byamugisha, F F K (1999): "The Effects of Land Registration on Financial Development and Economic Growth: A Theoretical and Conceptual Framework," World Bank Policy Research Working Paper 2240.

Carter, M R and P Olinto (2003): "Getting Institutions 'Right' for Whom? Credit Constraints and the Impact of Property Rights on the Quantity and Composition of Investment," *American Journal of Agricultural Economics*, Vol 85, No 1, pp 173–86.

Chavan, P (2012): "Debt of Rural Households in India: A Note on the All-India Debt and Investment Survey," *Review of Agrarian Studies*, Vol 2, No 1, January–June.

Committee on Household Finance (2017): "Report of the Household Finance Committee: Indian Household Finance," Reserve Bank of India, July.

de Soto, Hernando (2000): *The Mystery of Capital: Why Capitalism Triumphs in the West and Fails Everywhere Else*, New York: Basic Books.

Deininger, K W (2003): *Land Policies for Growth and Poverty Reduction*, World Bank Publications, Washington, DC.

Domeher, D and R Abdulai (2012): "Access to Credit in the Developing World: Does Land Registration Matter?," *Third World Quarterly*, Vol 33, No 1, pp 161–75, http://dx.doi.org/10.1080/01436597.2012.627254.

Dower, P and E Potamites (2005): "Signaling Credit-Worthiness: Land Titles, Banking Practices and Access to Formal Credit in Indonesia," *Department of Economics*, New York University.

Economic and Political Weekly Research Foundation (2006): "All-India Debt and Investment Surveys—A Pragmatic Look," http://www.epwrf.res.in.

Feder, G, T Onchan and T Raparla (1988): "Collateral, Guaranties and Rural Credit in Developing Countries: Evidence from Asia," *Agricultural Economics*, Vol 2, No 1, pp 231–45.

Feder, G and A Nishio (1998): "The Benefits of Land Registration and Titling: Economic and Social Perspectives," *Land Use Policy*, Vol 15, No 1, pp 25–43.

Field, E and M Torero (2008): "Do Property Titles Increase Credit Access among the Urban Poor? Evidence from a Nationwide Titling Program," viewed on 23 January 2012, http://www.economics.harvard.edu/faculty/field/files/FieldTorerocs.pdf.

Gothoskar, S P (1988): "On Some Estimates of Rural Indebtedness," Reserve Bank of India Occasional Papers, Vol 9, No 4, December, pp 299–325.

Goyal, A and K Deininger (2010): "Going Digital: Credit Effects on Land Registry Computerization in India," Policy Research Working Paper 5244, World Bank, Development Research Group, Agricultural and Rural Development Team.

IGIDR (2017): *Report on the Implementation of the Digital India Land Records Modernization Programme (DILRMP) in the State of Maharashtra*, Indira Gandhi Institute of Development Research, Mumbai.

Krishnan, K P, V Panchpagesan and M Venkataraman (2016): "Distortions in Land Market and Their Implications to Credit Generation in India," Working Paper-WP-2016-005, Indira Gandhi Institute of Development Research.

Macours, K (2009): "Land Titles and Conflicts in Guatemala," *School of Advanced International Studies*, John Hopkins University, Inter-American Development Bank, Working Paper CSI-I 64.

Morris, S and A Pandey (2009): *Land Markets in India: Distortions and Issues, India Infrastructure, 2009: Land—A Critical Resource for Infrastructure*, 3i network, Infrastructure Development Finance Company.

Mowl, A J (2016): "The Technology of Lending: Informal Credit Contracts," NSE-IFMR Finance Foundation Financial Deepening and Household Finance Research Initiative, http://foundation.ifmr.co.in/the-technology-of-lending-informal-credit-contracts/.

NABARD (2018): *NABARD All India Rural Financial Inclusion Survey 2016–17*, National Bank of Agriculture and Rural Development, Mumbai.

Nair, G, L Shankaranarayana K and Ram (2014): "Agriculture Gold Loans: Issues and Implications," *Rural Pulse*, National Bank of Agriculture and Rural Development, Mumbai, Issue III, May–June.

Narayana, D (1988): "A Note on the Reliability and Comparability of the Various Rounds of the AIRDIS and AIDIS," unpublished paper, Centre for Development Studies, Thiruvananthapuram.

Narayanan, S and J Chakraborty (2019): "Land as Collateral in India," Working Paper: WP-2019-006, Indira Gandhi Institute of Development Research, Mumbai.

Pender, J and J Kerr (1999): "The Effect of Transferable Land Rights on Credit, Land Investment and Use: Evidence from South India," *Agricultural Economics*, Vol 21, pp 279–94.

Pradhan, N C (2013): "Persistence of Informal Credit in Rural India: Evidence from All-India Debt and Investment Survey and Beyond," RBI Working Paper Series, WPS (DEPR): 5.

Rajeev, M, B P Vani and M Bhattacharjee (2011): "Nature and Dimensions of Farmers' indebtedness in India," Working Paper, Institute for Social and Economic Change.

Rajeev, M and P Nagendran (2018): "Are Gold Loans Glittering for Agriculture?" *Economic & Political Weekly*, Vol LIII, Nos 26 & 27, pp 32–38.

Sanan, Deepak, D B Gupta and Prerna Prabhakar (2017): *A Pilot Impact Assessment of the Digital-India Land Records Modernisation Programme: A Synthesis Report*, National Council for Applied Economic Research, New Delhi, 2 November.

Sanjak, J (2012): "Land Titling and Credit Access: Understanding the Reality," Property Rights and Resource Governance Briefing Paper #15, USAID Issue Brief October, viewed on 23 April 2017.

Sarap, K (1991): "Collateral and Other Forms of Guarantee in Rural Credit Markets: Evidence from Eastern India," *Indian Economic Review*, Vol 26, No 2, new series, pp 167–88, http://www.jstor.org/stable/29793557.

Satyasai, J S Kovvali (2002): "Debt and Investment Survey: An Underutilised Tool," *Economic & Political Weekly*, Vol 37, No 9, pp 823–25.

Stiglitz, J and A Weiss (1981): "Credit Rationing with Imperfect Information," *American Economic Review*, Vol 71, No 3, pp 393–410.

Swaminathan, M (1991): "Segmentation, Collateral Undervaluation, and the Rate of Interest in Agrarian Credit Markets: Some Evidence from Two Villages in South India," *Cambridge Journal of Economics,* Vol 15, No 2, pp 161–78, http://www.jstor.org/stable/23598176.