

# State of Land Report

India



Contributors





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## About the State of Land Report

### Underlining the Rationale

State of Land Report, India is a joint attempt by several institutions to bring together a status of land governance in India using various key land indicators. The objective is to create an easily interpretable repository of land information by pooling together existing data and present them together at one source as a ready reference material to contribute towards improved policy and actions, induce competitions and accountability and enhanced transparency. This is a response to address the opacity of information (viz. generation, availability and access) around land and also to present updated status of land governance indicators together for a better and holistic appreciation of status of land.

### Increasing demand for land indicators globally and locally

Land indicators are becoming important global tools for policy and advocacy. The 2030 Agenda places 8 targets and 12 indicators under five SDGs<sup>1</sup>. SDGs indicators present opportunity to establish national baselines to monitor progress and developments in land rights using comparable land indicators, linking national, regional and global efforts. National Governments have also adopted several regional and global frameworks on responsible land governance including the global Voluntary Guidelines on Responsible Governance on Tenure of Land, Forests and Fisheries (VGGT), Responsible Agriculture Investment (RAI), and the Africa Union Framework and Guidelines on Land Policy in Africa as voluntary guidelines on responsible land governance. Other institutions are also promoting and measuring different land indicators viz. World Bank looking at land under Ease of Doing Business, RRI estimates country-wise estimate of areas under formally recognized indigenous and community land rights as well as Forest Rights reports, Landmark's maps indigenous and community land, Land Matrix works on global map of land-based investments and recently Land Alliance has started PRINDEX. These indicators have opened up opportunities to make land governance transparent, accountable and informed, contributing ultimately to improvements.

### Improving Environment around Land data

While the demand for land data are growing in terms of diversity, quality and geography, supply side is also fast expanding with land stakeholders putting their ideas, innovations and efforts together to improve data environment. With countries and states adopting open data policy, initiating voluntary dissemination and preparing to open data standards, stage is getting ready for improved availability and access to important land data in open data formats. Civil society and private sectors are also gearing up to not only analyze data to generate important information, but are also chipping with innovative initiatives to generate primary land data from situations and perceptions following robust statistical and painstaking data collection efforts. Private sector and entrepreneurs are bringing in technologies and enabling interfaces improved and innovative collection storage, dissemination and crowd sourcing of geo-spatial and textual data.

### Indian Scenario

India has considerably enhanced institutional data collection capacity over the years, improving data production, accessibility and availability, around different land parameters. At the same time, a variety of non-institutional actors, are also contributing to compliment, build alternate data sources, spatial databases, innovatively analyze and present the official data produced by different governmental bodies, in an attempt to make land information

<sup>1</sup> <http://landportal.info/book/sdgs>

<sup>2</sup> <https://www.landesa.org/blog-moving-needle-forward-land-rights-sustainable-development-goals/>

more open, transparent and land governance more accountable, just and sustainable. In general, this enormous volume of statistics and information provides seamless opportunities to monitor and improve land governance and reinforces the argument that India constitutes unique playground to enhance the scope for aligning, combining, using and improving these datasets. This is crucial to ensure constant monitoring and reporting of land-related indicators, providing a basis to systematically discover and identify good practices – that can then be documented and disseminated across countries, states and districts – and to manage the change, gradually shifting towards a more performance-based approach and strengthening land governance in India.

Primary administrative and research data along with analytical interpretation of existing datasets make information on some important land indicators already available. Their scope ranges from pan-India with sub-national values going upto district level, while some provide opportunity to track temporal trends and some other across different population categories. Land being a state subject, comparative appreciation is important to promote cross learning with potential to induce accountability and competition among states and administrative units.

## Making a Case for State of Land Report, India

State of Land Reports-India proposes to build on these efforts and compliment with future primary surveys, to highlight such comparative progress against some key land indicators, while also reinforcing the open data policy of Government of India. Thanks to pioneering work of some foresighted institutions, there are already some status reports available around critical land indicators based on secondary research and primary surveys, with differential coverage and granularity. State of Land Report 2018, presents these information with a separate chapter on each of such land indicators. Aligned with the objective, the focus is to make the report as illustrative with spatial representation of indicators as far as possible.

## Chapters with Land Indicators and Institutions

#	Land Indicators	Institution	Type of data	Coverage (Spatial)	Source
<b>LAND TENURE SECURITY</b>					
1	Women Land Rights	CLG, NRMCC	WLR in the context of SDG	All State	Secondary: Agriculture Census- 2010-11, SECC- 2011, NFHS- 2015-16, IHDS- 2011-12
2	Tenancy	CLG, NRMCC	Tenancy and land leasing in India	All State	Secondary: Agriculture Census 2010-11, NSSO 2013
3	Perception of the Security of Property Rights in India	Land Alliance	PRIndex	24 states	Primary Survey, 2017
4	Landlessness	CLG, NRMCC	Landlessness, homesteadless, houseless	All states	Secondary: Agriculture Census 2010-11, NSSO 2013, SECC 2011, Population Census 2011
5	Land Record Digitization	NCAER	Progress of land record digitization around computerization of records, digitization of maps, survey etc.	All India	Secondary: DILRMP (CLG) Primary: 3 states Survey by NCAER
<b>Land Litigations, Conflicts</b>					

6	Land litigations	Daksh	Share of land cases in Indian Courts	184 districts in 24 states; Once	Primary Survey in 2015 (9,329 litigants in)
7	Investment blocking due to land conflict	Indian School of Business and RRI	Type and size of investments blocked by land conflicts	All India	Secondary: CMIE database (ISB)

## Objectives: Improved Access, Understanding & Use of land data

1. To bring together information on important land indicators developed by different institutions from primary and/or secondary data together for showing a bigger picture around land tenure security in India
2. To explore and suggest potential land index through harmonization/ homogenization of similar land indicators reported differently by multiple datasets in an attempt to present a more rationale and balanced picture
3. To provide a comparative state-wise visual appreciation of these land indicators, land being a state subject, to help correlate with the state contexts and land governance frameworks and trigger competition and investigation
4. To open up avenues and investigations into data characteristics in order to improve data systems and standards, explore the need for interoperability and harmonization of different sources through the adoption of internationally recognised standards which are critical for measuring and monitoring land indicators, in the context of national and global reporting and sharing viz. SDG, VGGT etc.

While dealing with land indicators constructed from secondary sources, some chapters in SLR bring datasets with multiple land indicators as well as different datasets on same land indicators together. This provides an opportunity for a better appreciation of the data variability related to context with respect to that parameter as well as the metadata. Most of the research and analysis of land data deal with a single dataset (viz. NSSO, SECC, NFHS, Agriculture Census etc.), usually around the time they are released. While they do analyse the temporal and spatial trend of a particular land parameter (viz. WLR, landlessness, tenancy etc.) using these datasets, there are fewer attempts to look at and portray the broader landscape of datasets around particular land parameters. Quite often separate datasets return different value for same parameter, thus meriting closer investigation into the metadata for harmonization and interoperability. Given the fact that data and information is increasingly become open and used as evidence for decision making and advocacy, understanding metadata and exploring data standards become critical while we analyse the datasets for policy and practice. Indirectly, SLR efforts would contribute towards an understanding and appreciation of different land datasets, their metadata underlining the importance of data-literacy while analysing and interpreting data. With data journalism growing as a discipline and open data policy and standards being universally applicable, land datasets in India merits closer relook not only as source of information for land indicators and indices but also being an information itself.

## Road Ahead

This version of SLR is a work-in-progress version with some datasets not adequately presented the way it was envisaged and some other remaining uncovered, primarily due to the time and resource constraints. We hope in the subsequent attempts, more such datasets would be included and presented with better analysis, improved visual enhancement and formats. Considering the dynamic nature of land information as well as scope of visualization around different disaggregation parameters viz. geography, gender, ethnicity etc. there is a strong

need of making these datasets interoperable and connecting them to an interactive web-GIS format as 'State of Land Atlas' and sharing in an open web portal to help researchers, policy makers and practitioners easily access information, build visualization and analyze interpretation to improve land governance. Till that time, we believe this attempt of SLR will remain a useful and informative intervention to make land governance transparent, accountable, informed and improved in India.

Given the fact that the indicators and visualization are based on data sources and methodologies, which remain incomplete, contested with scope of improvement and refinement, such efforts remain as attempts to present and interpret this information with these caveats and limitations.

# Chapter 1: Women Land Rights

## Whose land is it anyway?

### A gendered approach to land rights

Women constitute 12.8% of the landowners, accounting for 32% of the agricultural labour force and contributing an estimated 55-66% to farm production

Women's land ownership fosters a culture where they are economically independent which leads to a more enabling environment for them to be decision makers.

Secure and equitable land rights of women plays a crucial role in the achievements of four of the sustainable goals:

Ending poverty (SDG 1)  
Ensuring food security (SDG 2)  
Achieving gender equality (SDG 5)  
Making cities and human settlements inclusive (SDG 11)



## Chapter 1. Women Land Rights: Whose land is it anyway: A gendered approach to land rights

Center for Land Governance, NRMCC Bhubaneswar

### Introduction

Secure and equitable rights over natural resources is globally seen as a precursor to the achievements of numerous global development priorities including poverty elimination, food security, rural development, gender equality and women empowerment etc. (Choudhury et al, 2017). Governments and policymakers have a unique opportunity to empower women financially and socially by ensuring that their rights to land are protected<sup>2</sup>. This has a profound ripple effect<sup>3</sup> on household income, food security, health, and other positive outcomes for women, their families, and communities. At the macro level, securing women's land rights could stimulate entire economies<sup>4</sup>, help grow a more food secure future<sup>5</sup>, and even activate new allies in our response to climate change<sup>6</sup>. The Sustainable Development Goals recognizes this fact and asserts that by 2030 women should have equal control and rights over land as their male counterparts. At a time when tremendous efforts are being taken to bridge the gender gap in various sectors, it is important to consider the significance of women's land rights in achieving their economic empowerment, subsequently moving towards a more developed and sustainable society.

Over the last few years, both central and state governments have made progressive reforms to realize the goal of secure and equitable land tenure for all. However, the record in India when it comes to providing women equitable access to land is rather poor. According to FAO's Gender and Land Rights Database, India is amongst the countries with the most skewed distribution of agricultural land. Women constitute 12.8% of the landowners, while they account for 32% of the agricultural labour force contributing an estimated 55-66% to farm production.

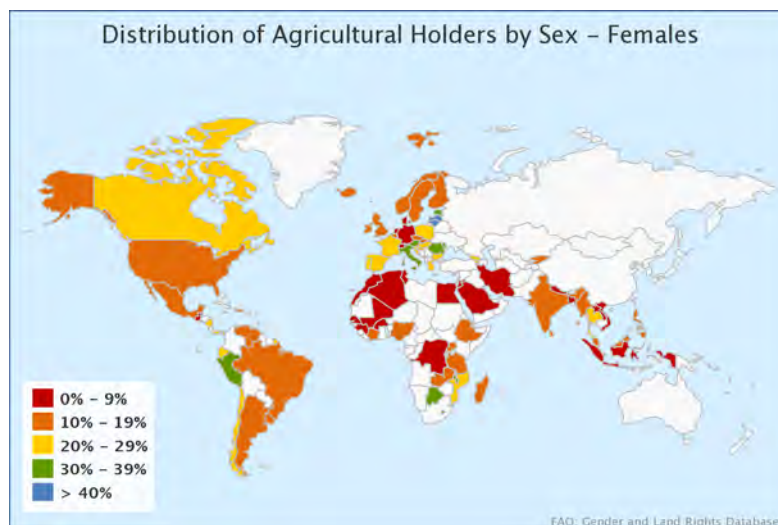


Image Source: FAO Gender and Land Rights Database

<sup>2</sup> <https://www.landes.org/blog-moving-needle-forward-land-rights-sustainable-development-goals/>

<sup>3</sup> <https://www.landes.org/resources/womens-land-rights-and-the-sustainable-development-goals/>

<sup>4</sup> <http://news.trust.org/item/20160614132200-91jwi/>

<sup>5</sup> <https://www.thechicagocouncil.org/blog/global-food-thought/guest-commentary-womens-land-rights-foundation-food-security>

<sup>6</sup> <http://womendeliver.org/2017/women-agents-climate-change-action/>

## Objectives and Rationale

Driving inspiration for this chapter comes from an encouraging decision by IAEG-SDG to move two important women land rights indicator 1.4.2 and 5a2 to Tier II<sup>7</sup> level. Indicator 1.4.2<sup>8</sup> measures proportion of total adult population with secure tenure rights to land, with legally recognized documentation and who perceive their rights to land as secure, by sex and by type of tenure. Indicator 5.a.2 measures the proportion of countries where the legal framework (including customary law) guarantees women's equal rights to land ownership and/or control. Another important indicator, 5a1<sup>9</sup> measuring (a) Proportion of total agricultural population with ownership or secure rights over agricultural land, by sex; (b) share of women among owners or rights-bearers of agricultural land, by type of tenure, was already in Tier II.

While the promotion to Tier II signals agreement at the global level on the methodology for collecting data to track progress toward indicators, more important milestone is to achieve Tier I classification. It requires, at least 50% of all countries in all regions must collect data and report regularly on the land tenure indicators. There is a strong need to look at the generation, analysis and dissemination of appropriate data in this regard in right frequency, granularity, meeting UNSTAT specifications.

Till the time SDG requirements are met, already available national datasets and indicators provide a good measure to proxy as well as supplement WLR monitoring.

The chapter attempts to contribute to SDG preparedness, particularly in the context of 5a1 as well as present the potential national data sets and possible indicators together for effective monitoring of WLR status. It also adopts a new approach drawing from other such global indicators (viz. Human Development Index) to present WLR in a combined index format for a more nuanced and composite appreciation of the status. Previous studies and attempts on this subject are either micro-studies restricted to a particular geographical region, or report WLR in terms of different parameters or macro-census/survey that portrays WLR at a higher aggregate level.

This chapter presents spatial distribution on WLR combined index across states of India, drawing from existing databases/sources capturing different aspects of women land rights. The national datasets used include Agriculture Census (2011), Indian Human Development Survey (2011-12), Population Census (2011), National Family and Health Survey (2015-2016) and the Socio Economic Caste Census (2011). Data from each of the surveys provides a different flavor of WLR. While combining the datasets, an attempt is also made to provide an appreciation of relevant metadata and potential indicators they provide separately around WLR. This consolidation of indicators aims to provide academics and policymakers an easy access to the evidences on women's land rights in different states and induce a comparative appreciation of the probable causes, triggering more informed action.

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<sup>7</sup> The indicator is conceptually clear, has an internationally established methodology and standards are available, but data is not regularly produced by countries

<sup>8</sup> <https://landportal.info/book/sdgs/142/sdgs-indicator-142>

<sup>9</sup> <https://landportal.info/book/sdgs/5a1/sdgs-indicator-5a1>

## Findings

### Women Land Holding Index

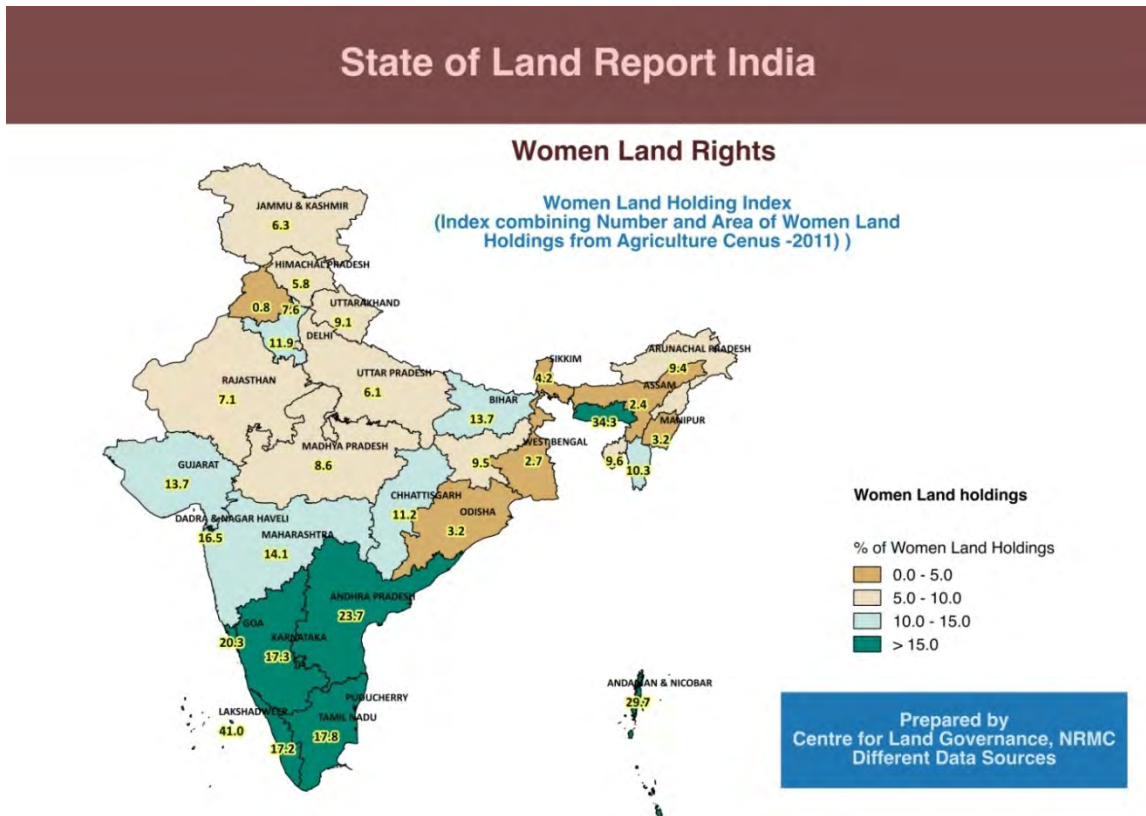
Data Source: Agriculture Census, 2011

Parameter: Percentage of number and area of women land holdings<sup>10</sup>

Method: Geometric Mean<sup>11</sup> of number and area of women land holdings to compute final index

The overall Land Holdings Index for India is 11.5%, where the percentage of number of women land holdings is 12.8% and the area of women land holdings is 10.3%. The southern states show a better situation as compared to the rest of the states. All the southern states fall in the first ten ranks with Andhra Pradesh having the best figure (17.2%) taking the fourth place in the all India ranking. The first three places are with Lakshadweep, Meghalaya and Andaman & Nicobar Islands. Out of 35 states and UT, for which data is reported in Agriculture Census, 15 states have this index, better than Indian average.

*Caveat: These values represent land ownership details of female heads of households; so it misses out data where (i) women own land but the household is not female headed (ii) joint pattas or joint ownership as part of land distribution*



<sup>10</sup>Number of women Holdings =  $\left( \frac{\text{Number of women headed HHs listed as operational holders}}{\text{Total number of HHs listed as operational holders}} \right) \times 100$

Area of land possessed by women =  $\left( \frac{\text{Total Area of land possessed by women}}{\text{Total area of land possessed by both genders}} \right) \times 100$

<sup>11</sup> While compositing the data from the different surveys, geometric mean was used instead of arithmetic mean as the former reduces the level of substitutionality. Preferring geometric mean is in line with the method employed by UN for computing the HDI since 2010

### SC/ST Women’s Land Holding Index

Data Source: Agriculture Census, 2011

Parameter: Percentage of number and area of SC/ST women land holdings<sup>12</sup>

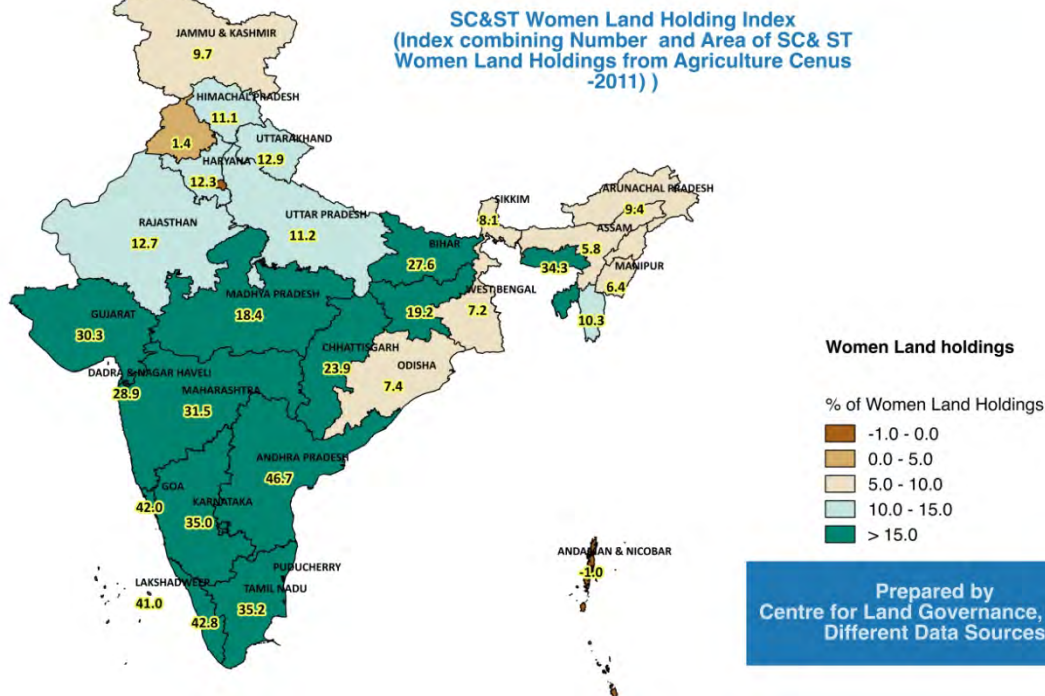
Method: Geometric Mean of number and area of SC/ST women land holdings

The national index for SC/ST women’s land holdings is at 19.7%, which is significantly higher than the national average of 12.9%. It means that the ratio of SC/ST women’s land ownership to that of the SC/ST men is better than the same ratio in case of all social groups combined. This indicates comparatively better rights for women among *dalit* and tribal communities.

Similar to earlier findings, the situation of women’s ownership of land amongst SC/ST women is better in the southern states with all states making it to the top ten ranks. Andhra Pradesh and Kerala score above 40% - more than twice the national figure – while smaller states like Daman & Diu, Lakshadweep, Meghalaya, also feature in the top ten states. Maharashtra and Gujarat take the 9<sup>th</sup> and 10<sup>th</sup> place respectively. In general SC/ST women in the southern and western states are better off than their counterparts in rest of the India. The states of Assam, Manipur and Punjab rank the lowest with SC/ST women having control over less than 7% of the land. Out of 35 states and UT, for which data is reported in Agriculture Census, 14 states have this index, better than Indian average.

## State of Land Report India

### Women Land Rights



<sup>12</sup>Number of women Holdings =  $\left( \frac{\text{Number of SC/ST women headed HHs listed as operational holders}}{\text{Total number of SC/ST HHs listed as operational holders}} \right) \times 100$   
 Area of land possessed by women =  $\left( \frac{\text{Total Area of land possessed by SC/ST women}}{\text{Total area of land possessed by both genders SC/ST HHs}} \right) \times 100$

### Women’s Land Rights Index

Data Sources: Five Surveys/national datasets indicated in the Section 2: Objective and rationale

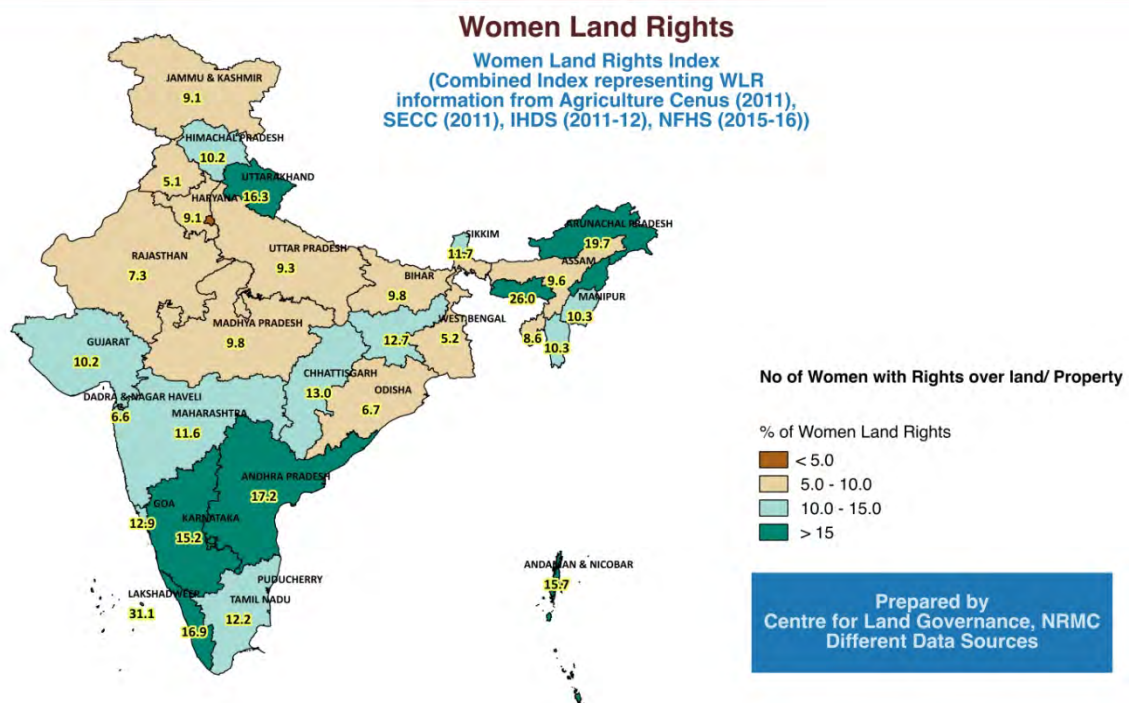
Parameters (relevant to SDG 5a 1)

- A. Share of women operational holders among total operational holders of agril land (Ag Census, 2011)
- B. Share of adult women population owning agricultural land among total adult land owners of agricultural land (Indian Human Development Survey (2011-2012))
- C. Share of women headed houses owning land (Socio Economic Caste Census, 2011)
- D. Share of women owning house and/or land (alone or jointly) (NFHS, 2015-16)<sup>13</sup>

Method: Geometric Mean of parameters A, B, C, D

The composite indicator brought together values from surveys to present a more complete and balanced picture. The national average is 12.9%. While Lakshadweep tops the women’s land rights index with 31.1%, Meghalaya (26%) and Arunachal Pradesh (19.7%) take the second and third place. Even with this combined indicator the southern states with an average of 15.4% and north eastern with an average of 14.1% fare better. Apart from Uttarakhand, which jumped up the rankings as compared with women’s land holding index, the combined index shows that the northern (9.8%) and eastern (9.2%) states have poor WLR.

## State of Land Report India

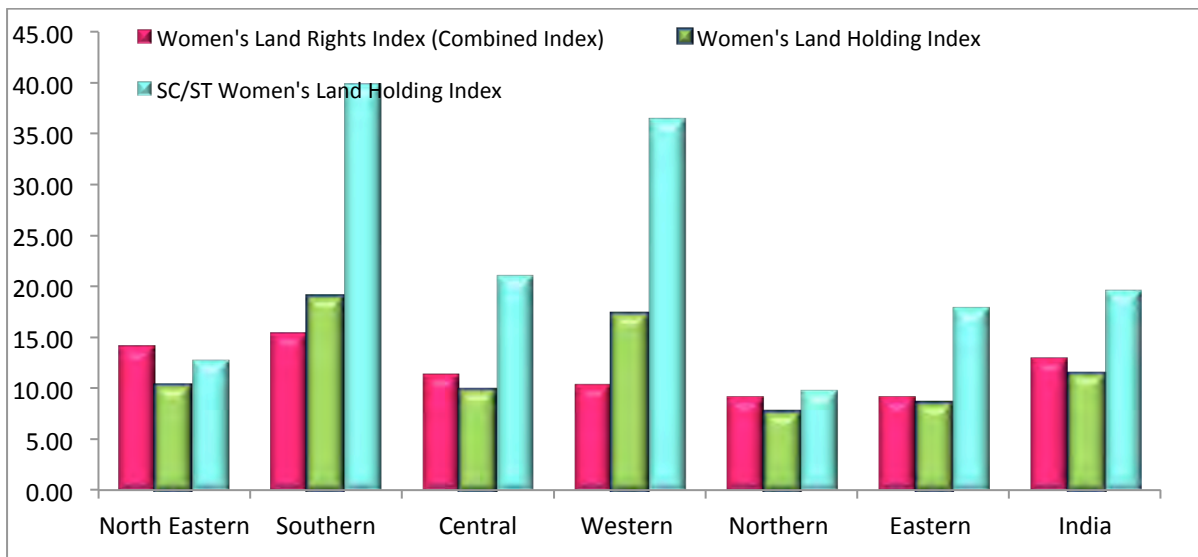


<sup>13</sup> **A. Agriculture Census:** Share of women operational holders among total operational holders of agricultural land = [(Number of women headed HHs listed as operational holders)/(Total number of HHs listed as operational holders)] x 100  
**B. IHDS and Population Census:** Share of adult women population owning agricultural land among total adult landowners of agricultural land= [(No of adult women agricultural land owners)/( Total population of adult land owners or cultivators)] \*100  
**C. SECC:** Share of women headed houses owning land= [(No of Women headed HHs owning land) / (Total Number of HHs)]\*100  
**D. NFHS:** Share of women owning house and/or land (alone or jointly)

## Discussions

The southern and northeastern states indicate better land rights regime of women as evident from both the women’s land holding index as well as women land rights indicator. Five states and UT, three in south (Andhra Pradesh, Kerala and Karnataka) along with Meghalaya and the Andaman and Nicobar islands have consistent in having better women land rights than the India average for all the three index.

In the Eastern and North Western states on the other hand, women’s land rights are lower, which is in line with the study by Agarwal (2003). The southern states on an average score 14.4% in comparison to 7.2% and 8.9% by Eastern<sup>14</sup> and Northern<sup>15</sup> states respectively. Studies like that by Choudhury et al (2017) have tried to explain the reasons behind the spatial differences by exploring legal-institutional frameworks (viz. historical land governance systems, Hind Succession Act Amendments, Stamp duty reduction<sup>16</sup>, joint registration of government land etc.), traditional practices (viz. matrilineal, purdah, *karewa*<sup>17</sup> etc.) as well as socio-economic trend (viz. male migration, NGO facilitation<sup>18</sup> of WLR etc.) in these states.



<sup>14</sup> Bihar, Jharkhand, West Bengal, Odisha

<sup>15</sup> Chandigarh, Delhi, Haryana, Himachal Pradesh, Jammu and Kashmir, Punjab, and Rajasthan; Uttar Pradesh, Uttarakhand

<sup>16</sup> According to a study by Landesa (2013) conducted in four states namely Madhya Pradesh, Haryana, Uttar Pradesh and Punjab, which have lowered stamp duty for women, the average number of women’s operational holdings increased by 42% during the period of 2001-2011 as opposed to the national average of 37%.

<sup>17</sup> By which, the widow is accepted as a wife by one of the younger brothers of the deceased husband or by the husband's elder brother, or his agnatic first cousin. The primary reason for continuing with this custom is to retain land and property within the family. The purpose is to transfer the control of land from the widow who acquired life estate in the absence of male descendants, to her husband’s brother or to a patrilineal family member.

<sup>18</sup> Rao (2011) observed that a legislation like HSA alone did not do much to improve the situation; the involvement of Society for Elimination of Rural Poverty, a body linked to the Department of Rural Development of the Government of Andhra Pradesh translated the law into action by raising awareness which encouraged husbands and wives to have negotiations about the terms on which wealth should be distributed to their children. In North India a campaign led by AROH Mahila Kisan Manch and the Gulabi Gang Group have led women’s movement to dismantle existing power structures that deny women land ownership. This 400,000 member strong group that works in 71 districts in Uttar Pradesh has managed to affect change women’s access and control of land. Similarly, the (WGWLO) is a Gujarat based NGO that has been working towards grassroots action and policy advocacy in the realm of women’s land rights and was successful in securing land deeds to more than 5000 vulnerable women and linked 9000 women farmers to different agricultural schemes of the government (UNDP, 2015).

With the advent of the digitization of land records, tracking gender based land ownership data can become more accurate and efficient. As of now the studies on land rights relies on proxy or alternate sources for information regarding land ownership. This is also one of the caveats of this chapter. Although the four surveys employed different methods to capture data regarding land ownership, all have some shortcomings. For example the Agriculture Census and SECC data assumes that the land owned by women headed households have women as owners in the land records as well, which might not be the case. Instead if the land records system mandates the inclusion of gender in **ROR/land records**, it will be easier to monitor the gender gap and its implications. A study by Choudhury et al (2016) using DILRMP data of four districts in Odisha indicated 26% land records in the name of women either singly or jointly, a figure that famous WLR researcher Bina Agrawal<sup>19</sup> also estimate.

Capturing the gender of the land owner must be considered an integral aspect of the land records modernization process

## Women's Land Rights Datasets

**Table 1 : Open access National Datasets around Women Land Rights**

Open access National Datasets around Women Land Rights	Frequency of collection	Sampling method	Sample Size	Measurement Units	Dis-aggregation other than gender	Data Format
<b>Agricultural Census, Division, Ministry of Agriculture, GoI</b>	5 years	Two stage sampling	All villages in land record states <sup>[1]</sup> , 20% sample villages in non land record states <sup>[2]</sup>	Household	Caste, farm size etc.	pdf
<b>IHDS, National Council of Applied Economic Research, University of Maryland</b>	2 rounds conducted (2005-06 & 2011-12)	Stratified random sampling	42,152 Household	Individual	age, caste, mode of acquisition	excel
<b>NFHS, IIPS &amp; Ministry of Health and Family Welfare (MOHFW), Government of India</b>	4 rounds conducted since 1992-1993	Stratified random sampling	568,200 Households (NFHS 4)	Individual	Age	pdf
<b>Population Census, Office of the Registrar General and Census</b>	10 years	Full Population	Total Population	Individual	CasteReligion, Occupation	excel
<b>SECC (socio-economic caste Census) Ministry of Rural Development</b>	Conducted once in 2011	Full Population in enumeration blocks	17.91 crore household	Individual	Caste, Primary Source of Income	excel

<sup>19</sup> Prof Agrawal's estimates that women in India own about 1/3<sup>rd</sup> of land, as per personal interaction

## Potential Women's Land Rights Indicators in India constructed with open access data with state/district wise segregation

- (i) SDG 5 a 1(a): Proportion of total agricultural population with ownership or secure rights over agricultural land, by sex;
- (ii) SDG 5 a 1 (b) Share of women among owners or rights-bearers of agricultural land, type of tenure
- (iii) Share of women operational holders among total operational holders of agricultural land: Agriculture Census (Choudhury et al 2017<sup>20</sup> and Report on Women's Land Rights Mapping in India<sup>21</sup> in the context of the SDGs, NRMC for the World Bank
  - a. Percentage of land area (area of holdings) in the name of Women
  - b. Percentage of operational holdings in the name of Women
  - c. Percentage change in area of Holdings in the name of women (2001 & 2011)
  - d. Percentage change in number of Holdings in the name of women (2001 & 2011)
  - e. Ratio of average size of holdings own by women and men (2011)
  - f. Ratio of average size of holding own by ST women to women and to ST men (2011)
  - g. WLR indicators around number and area of holding around size-class (viz. % of small and marginal holdings and area owned by women vis-.-vis men) and around social category (viz. % of SC & ST holdings and area owned by women vis-.-vis men)- 2
- (iv) Share of adult women population owning agricultural land among total adult land owners of agricultural land: IHDS and Population Census (Choudhury et al 2017)
- (v) Share of women headed households engaged in cultivation among total households engaged in cultivation: Socioeconomic Caste Census (Choudhury et al 2017)
  - h. Percentage of landlessness among women and their ratio to percentage of landless men, (only state-wise; through indirect estimation from Socio Economic Cast Census, 2011)
- (vi) Share of women owning house and/or land (alone or jointly): NFHS

<sup>20</sup> <https://landportal.info/library/resources/administrative-and-open-source-data-monitoring-land-governance-mapping-women-land>

<sup>21</sup> <https://landportal.info/library/resources/women's-land-rights-mapping-india-context-sdgs>



## Recommendations and Way Forward

Gender disaggregated data on land ownership and tenancy reported along with operational holding reported by Agriculture Census;

- Compulsory Gender capture in DILRMP in prospective land records and conversion of old records
- DILRMP national portal should report and update every year, district-wise gender-disaggregated data on land records in rural, agriculture and homestead land
- All data maintained in inter-operable and geo-referenced format

"Having the title in my name means a lot to me: it means I have a say in what we do with the land, and my husband can't throw me out or sell the land without my permission."

*A woman speaking at a land-literacy meeting of advocacy group Landesa at a local school in Taardeh village (Huffpost)*

Land rights for women means greater financial stability, food security and social status for the entire family. Land provides food for the family for the entire year. We don't have to buy food. We can grow gram, wheat and lentils and use most of it for household consumption. Whatever is left can be sold in the market. Also, if land is in the woman's name a man cannot sell or lease it out wrongfully especially under the influence of alcohol.

*Suhadra Devi from Chakchatgan village in Banda, Uttar Pradesh (The Better India)*

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## Chapter 2: Tenancy in India Hidden Farmers, Concealed Identities, Confusing numbers

Small and marginal farmers, who account for more than half of the total land holdings, and may not hold formal land titles, are unable to access institutionalized credit – *Reserve Bank of India, 2015*

An estimated 21.3 million tenants cultivate about 10.7 m ha of leased in land in India, which is about 1/9<sup>th</sup> of area under operational holdings

- *NSSO, 2013*

Legalisation of land tenancy would also ensure that farmers get access to formal credit, insurance, and inputs such as fertilizers-  
*Niti Ayog, 2016*

## Chapter 2: Tenancy in India

### Hidden Farmers, Concealed Identities, Confusing numbers

Center for Land Governance, NRMCC Bhubaneswar

#### Introduction

For an agrarian economy like India, tenure security of farmers over farm land is critical for growth, livelihoods and development. Tenancy was a systemic practice and a common agrarian relation in pre-independent India in princely states as well as during colonial administration. In an agriculturally dominant economy, the practice was exploitative and had led to operation of a series of intermediaries, between the owner and the actual tiller or the tenant. Abolition of intermediaries and giving away land to the recorded tenants was seen as an answer to address this issue. Post-independent, state governments made efforts for abolition of intermediaries and the exploitative practices like *Zamindari* system, by bringing in progressive and pro poor land legislations to address Ceiling, Zamindari, tenancy, consolidations etc. However, despite tenancy prohibition in most state reform laws, practice of tenancy continue overtly and covertly due to the practicality of the arrangement and convenience. Legal restrictions on tenancy, has proved counterproductive to the tenant and has affected investments on and production from land while contributing substantially to the farm crisis.

In cases of disaster, crop losses and many such exigencies, the government has been handing over monetary compensation, which hardly reaches the tenant farmers. In absence of any evidence of record, they become invisible farmers with the government schemes and programmes failing to reach them. Tenant doesn't get the entitlements meant for farmers viz. fertilizer subsidy, MSP, benefits from farm schemes and also loses formal access to credit, insurance etc. This has led to an eternal cycle of informal debt and frequent crop failures for the tenant farmers (particularly those who are landless) which often push them into situations where they are driven to commit suicide<sup>22</sup>. While tenancy in India has remained widespread and concealed, they seem to also be expanding with land reforms remain unfinished, absentee landlordism growing, rural-urban migration increasing and the number of marginal farmers and agriculture labourers growing.

Insecurities around the prevailing practice of tenancy can lead to a) lack of investment on land development leading to reduced production; b) lack of access to financial support resulting in reduced investment on land; c) large extent of land lying fallow d) an unequal distribution of land resources leading to increased poverty.

The issue of tenancy is relevant to the **Sustainable Development Goals 1- Ending poverty** and **Goal 2- Zero hunger**.

- **Goal 1, Target 1.4**<sup>23</sup> Talks about **equal rights to economic resources**, access to basic services, **ownership and control over land** and natural resources, appropriate new technology **and financial services, including microfinance**. Target 1.5<sup>24</sup> further iterates building reliance of the poor and those vulnerable; reduce their exposure and vulnerability to climate-related extreme events and economic, social and environmental shocks and disasters.

<sup>22</sup> As per a study by Choudhury et al, 70per cent of the farmers who committed suicide in Odisha during 2016 were tenants.

<http://igss.org/wp-content/uploads/2017/06/Why-Farmers-Quit.pdf>

<sup>23</sup> 1.4 By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance

<sup>24</sup> 1.5 By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters

- **Goal 2 Target 2.3<sup>25</sup>** emphasises on **doubling agricultural productivity and incomes of small-scale food producers, family farmers**, through **secure and equal access to land**, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition.

Addressing the tenure security of tenant farmers are important to meet these goals.

## Objectives and rationale

While tenancy continue as an important agrarian relation bottlenecking land tenure security and impacting farmers' welfare, income and agriculture growth, information on tenancy remain either remain hidden or confusing. With mandatory SDG reporting on the anvil and Government of India's reform on land leasing and doubling farmers' income on the priority agenda, contours of tenancy required to be better understood and more transparent.

Inspiration for this chapter comes from the importance attached to **ownership, secure access and control over land in SDG** (target 1.4 Target 2.3) and from Govt of India's decision to bring in land lease reform<sup>26</sup> through Niti Ayog in form of a model agriculture land leasing Act in 2016 as well as recent plan of Government to double farm income<sup>27</sup> by 2022, which also looks at addressing tenancy through Structural Reforms and Governance Framework<sup>28</sup>

Extent of tenancy, reported or concealed varies across states as per the historical land governance contexts, post-independence land reform laws<sup>29</sup> as well as the present stage of socio-economic development and market contexts. Information and trend on tenancy along with that of ownership of land holdings and distribution state-wise is critical for understanding agrarian structure, relation and address farm crisis and sustainable development. Apart from spatially and temprally specific primary research studies, two national periodic data sources report tenancy

- NSSO<sup>30</sup>: Ownership and Operational Land Holding Survey and Land and Livestock Survey (viz. 8<sup>th</sup> round 1953, 16<sup>th</sup> Round 1960-61, 17<sup>th</sup> Round 1961-62, 26<sup>th</sup> Round 1971-72, 37<sup>th</sup> Round 1982, 48<sup>th</sup> round 1992, 59<sup>th</sup> round 2003, 70<sup>th</sup> around 2013)
- Agriculture Census<sup>31</sup> conducted every five year since 1970. The 10th Census with reference year 2015-16 is the latest

As per NSSO, the area under tenancy, decreased from 23 per cent during the year 1952-53 to 11 per cent in 1961-62 and then to 7 per cent in 1982. However it increased to 12 per cent in 2013, while oscillating at 9 per cent in

<sup>25</sup> 2.3 By 2030, double the agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services,

<sup>26</sup> [http://niti.gov.in/writereaddata/files/writereaddata/files/document\\_publication/Final\\_Report\\_Expert\\_Group\\_on\\_Land\\_Leasing.pdf](http://niti.gov.in/writereaddata/files/writereaddata/files/document_publication/Final_Report_Expert_Group_on_Land_Leasing.pdf) ;

<sup>27</sup> Niri Policy paper 1/2017; Doubling Farmers' Income : Rationale, Strategy, Policy and Action Plan,

[http://niti.gov.in/writereaddata/files/document\\_publication/DOUBLINGper cent20FARMERSper cent20INCOME.pdf](http://niti.gov.in/writereaddata/files/document_publication/DOUBLINGper cent20FARMERSper cent20INCOME.pdf)

<sup>28</sup> Report of Committee on Doubling Farmers' Income, Volume XIII "Structural Reforms and Governance Framework"

"Strengthening the Institutions, Infrastructure and Markets that Govern Agricultural Growth"

<http://agricoop.gov.in/sites/default/files/DFIper cent20Volumeper cent2013.pdf>

<sup>29</sup> Based on legal position of land leasing, various regions of India can be broadly grouped into five categories (Haque,

2014 [http://www.landandpoverty.com/agenda/pdfs/paper/haque\\_full\\_paper.pdf](http://www.landandpoverty.com/agenda/pdfs/paper/haque_full_paper.pdf) .

<sup>30</sup> Surveys of Land and Livestock Holdings are conducted by NSSO once in ten years. In these surveys, detailed information is collected on various aspects of land and livestock holdings. These include collection of plot-wise data on land use and on tenurial status.

<http://www.indianstatistics.org/land.html#meadcaïn1983>

<sup>31</sup> Data from Agricultural Censuses pertain only to operational holdings; there are no data on ownership of land. Agricultural Censuses are conducted as part of the [World Censuses of Agriculture](#) coordinated by the [Food and Agricultural Organization of the United Nations](#). In a majority of States, agricultural censuses are based on retabulation of land records. Land records are often not updated. In the survey manuals for Agricultural Censuses, individual holding is defined at the level of the household.

<http://www.indianstatistics.org/land.html#meadcaïn1983>

1992 and 7 per cent in 2003<sup>32</sup>. There is also a declining trend in the percentage of households leasing in land over the three decades. The ratio of area leased-in to area owned by households dropped from 1971-72 (25 per cent) to 2003 (12 per cent), but increased in 2013 (14 per cent). The same pattern is seen in the ratio of area leased-out to area owned. The average area leased-in area per reporting household was 0.5 ha, while leased-in area as percent of total area owned was 11.6 per cent 2013. The NSS data may be an under-estimate due to concealment of tenancy and the practice of oral leasing.<sup>33</sup>

As per agriculture census, however, tenancy was 8.4 per cent<sup>34</sup> in 1970 and reduced gradually to 2.34 per cent in 2010-11 (5.9 per cent in 1980-81, 3.34 per cent in 1990-91 and 2.84 per cent in 2000-01). Similarly the area under tenancy has decreased from 8.9 per cent in 1970 to 2.3 per cent in 2010-11. The share of tenants and area under tenancy have been reported as more or less uniform across farm size classes in 2000-01. Agriculture Census also attributes tenancy<sup>35</sup> as a sensitive information to be correctly collected.

This two important administrative data sets collected and presented by legitimate agencies following robust statistical procedures presents a completely contrasting picture around tenancy, which remains an enigma in Indian Agriculture. Though both of them indicate a declining trend which can attributed to reformistic legal-institutional frameworks, the variations are too high as per latest figure. While 13.65 per cent of farmers lease in land as per NSSO (2013), it is 2.39 per cent as per agriculture census (2010-11). Land being a state subject and historical and prevailing tenancy laws varying widely across the state<sup>36</sup>, appreciation and comparison of state-level information is critical for understanding of context and informed decision making. This chapter makes an attempt to present these two datasets together across states in terms of simple tenancy parameters while also attempting to build indicators for a more harmonized appreciation.

## Findings

### Percentage Leased in Area per Household

**Data Source: NSSO 70<sup>th</sup> Round 2013**

**Parameter: Leased-in area as percent of total area owned by a household**

**Method: Directly collected from Statement S4.7: State-wise incidence of tenancy from NSSO report 2013<sup>37</sup>**

One in every seven household (13.65 per cent) was a tenant in 2013, which turns out to be an estimated 21.29

<sup>32</sup> [http://mospi.nic.in/sites/default/files/publication\\_reports/Report\\_571\\_15dec15\\_2.pdf](http://mospi.nic.in/sites/default/files/publication_reports/Report_571_15dec15_2.pdf)

<sup>33</sup> Discussion paper 'Tenancy reforms vs open market leasing – what would serve the poor better?' (2013, Dr. N.C. Saxena, Former Secretary, Planning Commission)

<sup>34</sup> Percentage of holding which are not wholly owned nor self operated; this include Wholly leased in, Wholly otherwise operated, Partly owned, Partly leased in & Partly otherwise operated; <http://agcensus.nic.in/document/analysis01natasg.htm>

<sup>35</sup> The information on a sensitive subject, like, tenancy collected during Agriculture census 2000-01 and also during earlier agriculture censuses may not represent the full picture. Collection of information on such a sensitive subject has been a difficult task, due to the enactment of land reform legislation abolishing the tenancy in most of the States. As a result, land records may not reflect the de-facto position about the concealed tenancy, if any. The cases of recorded tenancy have been very few and no information could be collected regarding concealed tenancy. There may be deliberate cases of misreporting in the land records, which are the primary source of information for the Agriculture Census. Even in regard to the States which do not have comprehensive land records and where the information was collected by Household Enquiry Method, the information supplied by the respondents and their close relatives could not be relied upon. The information on tenancy has, therefore, to be viewed keeping this limitation in view. <http://agcensus.nic.in/document/analysis01natasg.htm>

<sup>36</sup> Currently, laws of tenancy of agricultural land vary across different states. 21 States such as Kerala, Jammu and Kashmir and Manipur completely prohibit the leasing of agricultural land. Others such as Bihar, Karnataka, Uttar Pradesh, Telangana and Odisha allow land leasing only by certain categories of land owners. On the other hand, states such as Gujarat, Maharashtra, and Assam do not explicitly prohibit leasing, and allow the tenant to purchase the land from the owner after a specified period of tenancy. In Andhra Pradesh, Tamil Nadu and West Bengal, there is no legal ban on leasing land. Different states also have different ceilings on the area of land which may be leased. Report of the Expert Committee on Land Leasing, NITI Aayog, March 31, 2016, [http://www.niti.gov.in/writereaddata/files/document\\_publication/Final\\_Report\\_Expert\\_Group\\_on\\_Land\\_Leasing.pdf](http://www.niti.gov.in/writereaddata/files/document_publication/Final_Report_Expert_Group_on_Land_Leasing.pdf).

<sup>37</sup> [http://mospi.nic.in/sites/default/files/publication\\_reports/Report\\_571\\_15dec15\\_2.pdf](http://mospi.nic.in/sites/default/files/publication_reports/Report_571_15dec15_2.pdf)

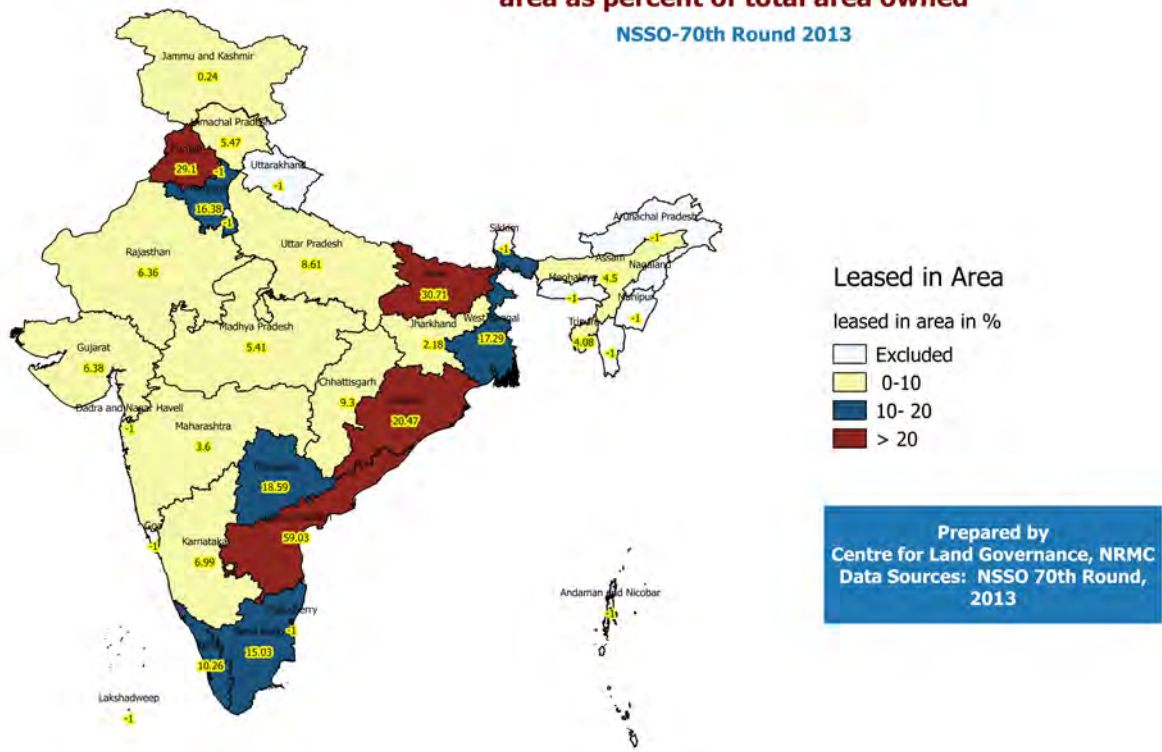
million tenants cultivating about 10.66 m ha of land. While percentage of tenancy indicates tenurial insecurity and vulnerability, intensity of dependence of leased in land or tenancy determines the degree of vulnerability. Leased in area as percentage of total area owned by farmer provides intensity of dependence on farming on leased in land, which is a critical determinants for farm input use, productivity and income.

The national average of ratio of land leased-in to total area owned was 11.6per cent. States like Andhra Pradesh had almost four times leased in area (59.0per cent), while Bihar (30.7per cent) and Punjab (29.1per cent) about thrice and Odisha about twice (20.5per cent) of the national average, indicating higher dependency on leased in land or tenancy for farming. Telangana (18.6per cent), West Bengal (17.29per cent), Haryana (16.38per cent) and Tamil Nadu (15.03per cent) were other states having more leased area ratio than the national average. J&K has lowest leased in area ratio at 0.24 followed by NE states (4.08per cent) and Assam (4.5per cent)

*Caveat: Land held in owner-like possession under long term lease or assignment was also considered as land owned in NSSO. Average area owned per household was 0.594 ha, while average area leased in was 0.50 ha. Sample size consists of 4529 villages in all states and UT covering about 35,500 households. Usual caveat applied to sample and concealing tenancy information is also applicable here.*

## State of Land Report India

**Percentage Leased in Area: Leased-in area as percent of total area owned**  
NSSO-70th Round 2013



## Leased in Index

**Data Source:** NSSO 70<sup>th</sup> Round 2013 and Agriculture Census 2010-11

**Parameter:** Percentage of number of households reporting leased-in land (NSSO, 2013) and Percentage number of operational holding not fully owned or self operated<sup>38</sup> (Agriculture Census, 2010-11)

**Method:** Geometric mean<sup>39</sup> of both parameters to compute Leased in Index

This is an attempt to combine two different sets of data with an idea of harmonization to provide a blended picture of tenancy by using Geometric mean.

All India figure for leased in index is 5.71 per cent, with four states having higher percentage. While two states of West Bengal (20.2 per cent) and Odisha (18.9 per cent) have almost 3-4 times of tenancy, Punjab (6.1 per cent) and HP(5.9 per cent) are almost same as national average. All other states have less than 5 per cent.

In contrast all India figures of percentage leased in area is 2.4 per cent as per Agriculture Census, 2010-11, with West Bengal highest at 22.8 per cent and Odisha following closely at 18.4 per cent. National average as per NSSO, 2013 is 13.7 per cent, with Andhra Pradesh standing tall at 37.2 per cent, followed by HP (21.2 per cent), Odisha (19.3 per cent), Bihar (18.7 per cent) and West Bengal (17.8 per cent). Among two data sets Odisha and West Bengal seems to have similar score.

*Caveat :. As actual situation of tenancy differ from these datasets, it may also not overlap with this index. However, this approach of using geomteric mean would portray a more balanced picture than either of the database alone. More importantly the objective is to provide a state-wise visual appreciation of a harmonized single index. This is probably the first such attempt and critique are welcome. NE states and UT not considered as NSSO put them as clusters and Agriculture Census presents them separately*

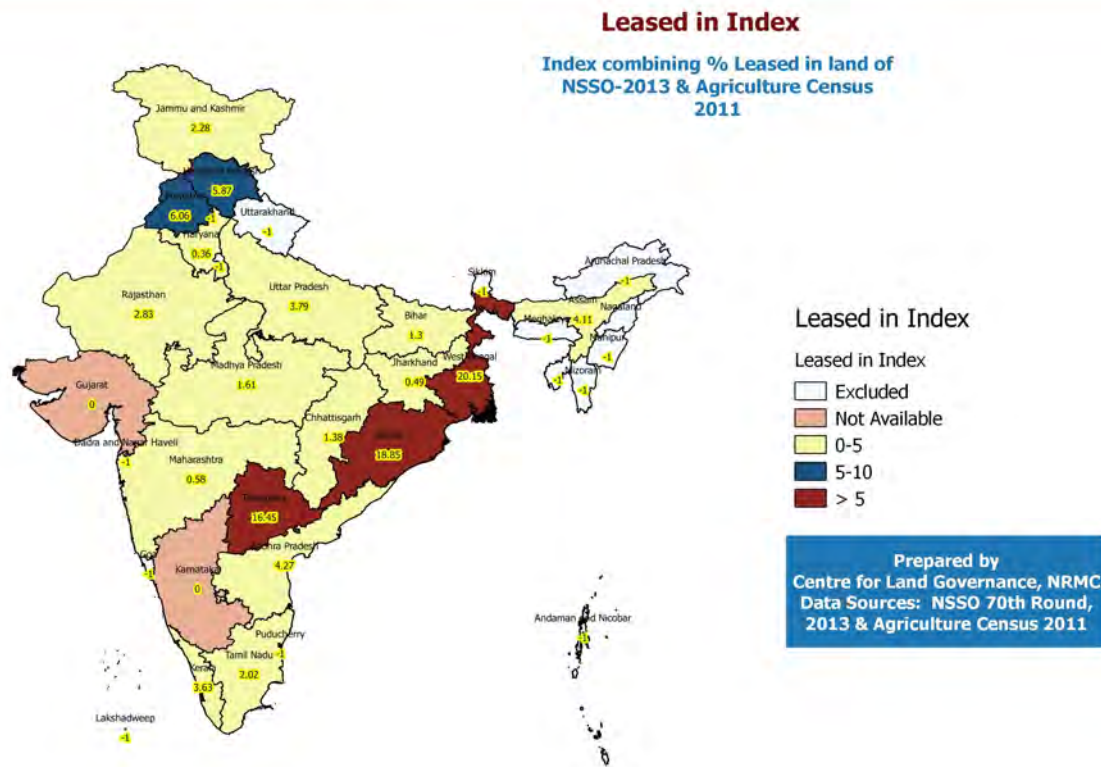
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<sup>38</sup> Percentage of holding which are not wholly owned nor self operated; this include Wholly leased in, Wholly otherwise operated, Partly owned, Partly leased in & Partly otherwise operated

<sup>39</sup> While compositing the data from the different surveys, geometric mean was used instead of arithmetic mean as the former reduces the level of substitutionality. Preferring geometric mean is in line with the method employed by UN for computing the HDI since 2010



# State of Land Report India



## Land Leasing Index

**Data Source: Agriculture Census 2010-11**

**Parameter: Percentage number of operational holding not fully owned or self operated and Percentage area operated by these households (Agriculture Census, 2010-11)**

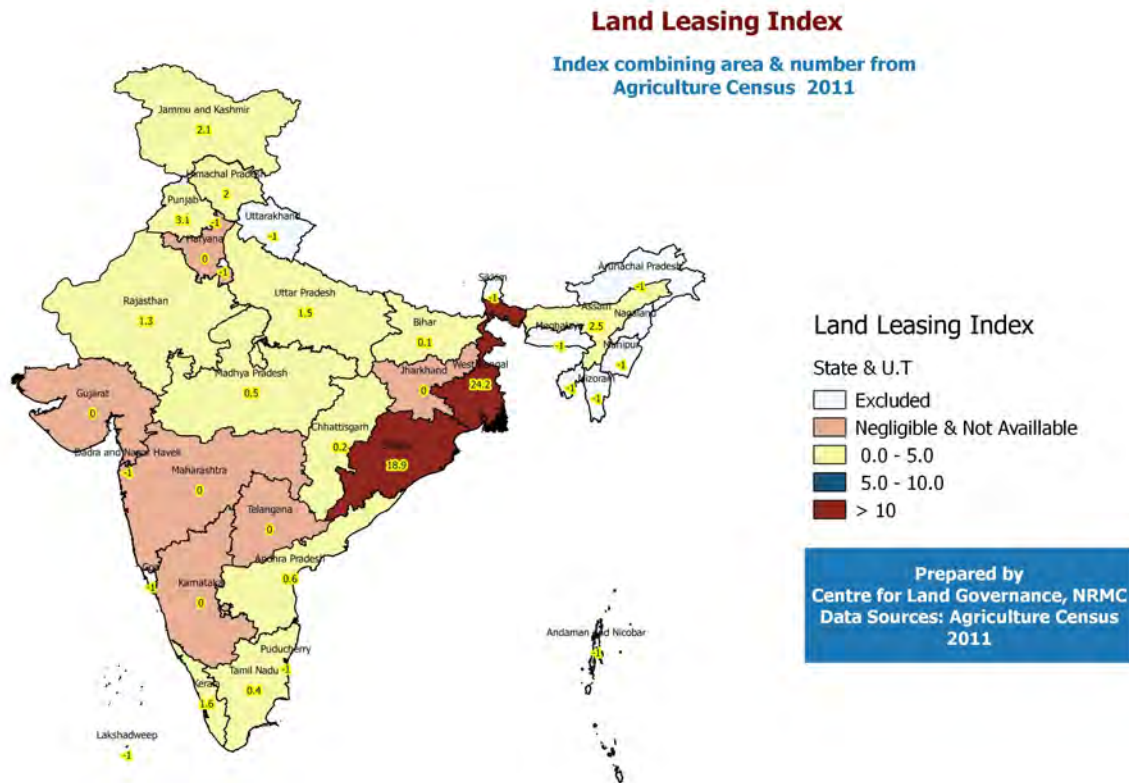
**Method: Geometric mean of both parameters to compute Land leasing Index**

This is an attempt to combine two relevant types of data on tenancy reported by a single (Agriculture census, 2010-11) dataset to provide a one composite tenancy indicator for better appreciation. Using Geometric mean the number and area under tenancy, two key attributes of leased in land, are combined to showcase Land leasing index.

All India figure for Land leasing index is 2.3 per cent, with four states having higher percentage. While two states of West Bengal (24.2 per cent) and Odisha (18.9 per cent) have almost 3-4 times of tenancy, Punjab (3.1 per cent) and Assam (2.5 per cent) are almost same as national average. All other states have less than 2 per cent. In states like Gujarat, Karnataka, Arunachal Pradesh and Mizoram, land leasing is not reported.

*Caveat: Tenancy information collected during Agriculture census may not represent the full picture of tenancy (Refer footnote 14)*

# State of Land Report India



## Status of tenancy law in India

**Data Source:** NITI Aayog, Government of India

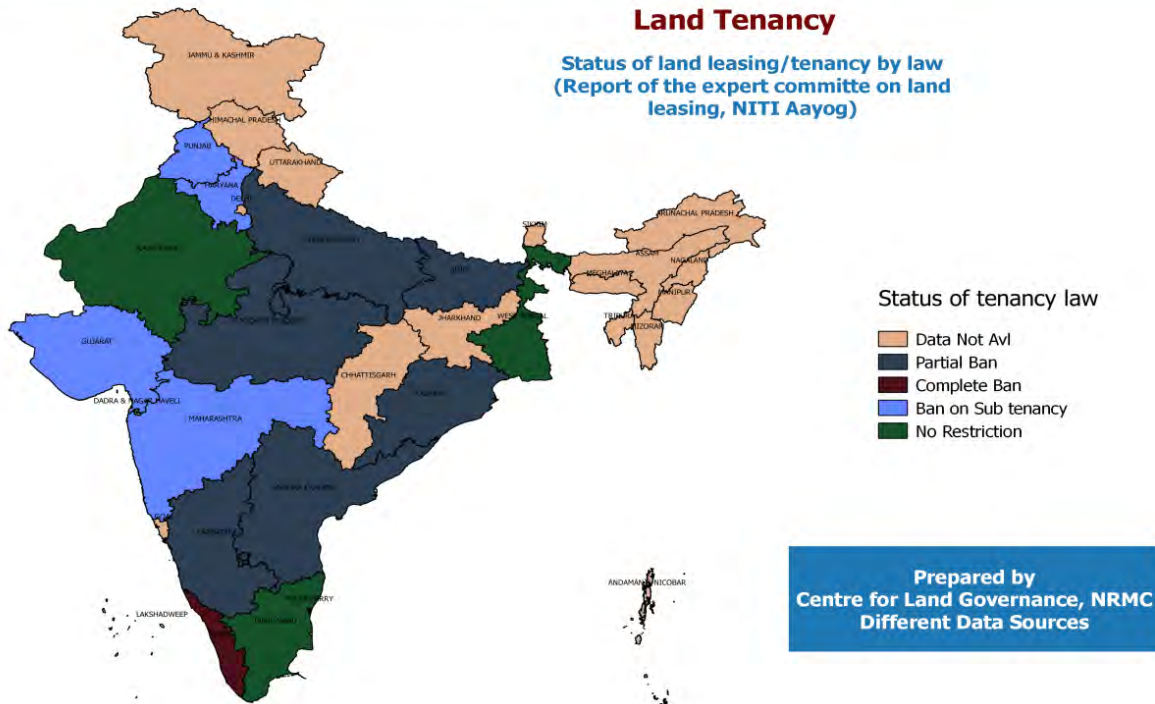
**Parameter:** Legal status of Tenancy in different state

**Method:** As reported in the Niti Ayog’s Final Report Expert Group on Land Leasing<sup>40</sup>

The states where land leasing/ tenancy of agricultural land is legally banned except to disabled, armed personnel, privileged farmers and so on are – Telengana area of Andhra Pradesh, Bihar, Odisha, Karnataka, Madhya Pradesh, Uttar Pradesh. In Kerala States leasing out of agricultural land is totally prohibited, without any exception. In states like Gujarat, Maharastra, Punjab and Haryana leasing is not banned, however, the sub-tenant acquires a right to purchase the leased in land within a specified period of creation of tenancy. State where there are no restrictions on land leasing are Andhra area of Andhra Pradesh, Rajasthan, Tamil Nadu and West Bengal. In West Bengal only sharecropping tenancy is permitted

<sup>40</sup> [http://niti.gov.in/writereaddata/files/document\\_publication/Final\\_Report\\_Expert\\_Group\\_on\\_Land\\_Leasing.pdf](http://niti.gov.in/writereaddata/files/document_publication/Final_Report_Expert_Group_on_Land_Leasing.pdf)

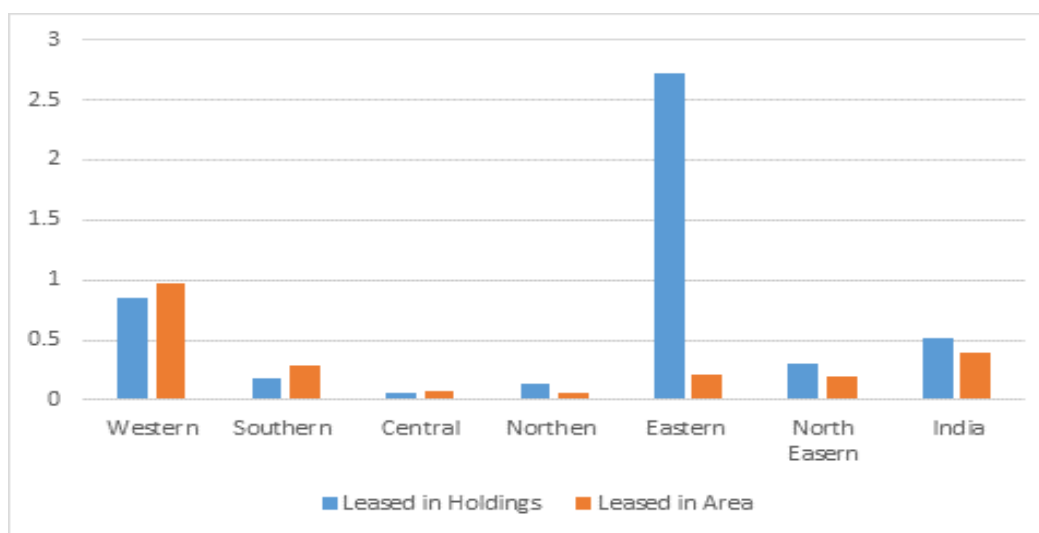
## State of land Report India



### Discussions

The eastern states indicate a higher prevalence of tenancy practice followed by the western states and the north-eastern states in terms of leased in holding and leased in area by region. While the Agriculture Census 2010 reports data from states of Goa and Rajasthan, data from other states like Maharashtra, Daman and Diu, Gujarat etc in the western region is not captured.

In the southern and northern states the practice shows a lower prevalence. The data from the southern region is reported for the states of Tamil Nadu, Kerala, Puducherry, Andhra Pradesh etc., while, data is not reported from the state of Karnataka. In the northern region following a similar trend data from Uttar Pradesh is reported and states like Delhi, Haryana, Chandigarh etc remain unreported. Therefore, while calculating the geometric mean, the regional data reflects only the states from which data was reported.



In 2016, NITI Aayog has drafted a Model Land Leasing Law by following a due consultative process and has recommended States to bring in reforms in land leasing by bringing in laws. Madhya Pradesh was the first state to bring in reforms in tenancy/ land leasing by amendment of their existing land reforms law. Odisha government has drafted a new law but it has progressed slowly in this regard. Other states like Karnataka, Andhra Pradesh, Bihar etc have initiated the process.

## Tenancy Datasets

**Table 1 : Open access National Datasets around land leasing and Tenancy**

Open access National Datasets around Women Land Rights	Frequency of collection	Sampling method	Sample Size	Measurement Units	Data	Data Format
<b>Agricultural Census, Division, Ministry of Agriculture, Gol</b>	5 years (since 1970-71)	Two stage sampling	All villages in land record states <sup>41</sup> 20% sample villages in non land record states	Household (operational holding)	Tenurial status, Tenancy types Seggregation: Gender, Caste, farm size etc.	Pdf (upto sub-district level)
<b>National Sample Survey Organization: Surveys of Land and Livestock Holdings</b>	10 years (since 1953)	Stratified multi-stage design	4529 villages in all states and UT; about 35,500 households <sup>41</sup>	Household (operational holding)	Plot-wise data on land use and on tenurial status, Tenancy types Seggregation: Gender, Caste, farm size etc.	Pdf (upto state level)

## Recommendations and way forward

- Data on the tenancy are required to be appropriately captured and recorded for de-fator appreciation of the tenure security around farm land for mandatory reporting for SDG as well as informed decision on agriculture policy through desired monitoring.
- A legal-institutional framework for such data collection can be developed as part of National Open data policy. DILRMP can also prescribe and ensure recording of tenancy, as it is already practiced and recorded

<sup>41</sup> <http://www.icssrdataservice.in/datarepository/index.php/catalog/96/overview>

under Records of. Rights, Tenancy and Crop Inspection Register (RTC) (viz. Pahani in Karnataka) with a provision of data aggregation state-wise, retrieval and reporting.

- Attempts must be made some nodal agency like MOSPI or Niti Ayog to analyze the meta data, data standards and methodologies adopted by NSSO and Agriculture Census and explore if harmonization is possible and also if and how they supplement each other.
- Other periodic household and living standard measurement surveys like Indian Human Development Survey (IHDS), National Family Health Survey already collecting land ownership information must be encouraged to segregate ownership by adding in tenancy
- All datasets need to focus on gender-disaggregation of tenancy data going beyond gender of head of households and including intra-household and single women cases.

## Chapter 3: Property Right Index: Reflections from a Pioneering Primary Survey on Perceptions of Property Rights

**PRIndex is based upon nationally representative surveys targeting individuals aged 15 and above**

**25% of the respondents globally surveyed in the pilot phase feel their property rights are at risk**

**- 1<sup>st</sup> Round of Survey, 2016**

**Level of self-reported tenure insecurity varied depending on the phrasing of the questions and answers put to respondents.**

**- 1<sup>st</sup> Round of Survey, 2016**

## Chapter 3: Property Right Index: Reflections from a Pioneering Primary Survey on Perceptions of Property Rights

### Land Alliance

#### Introduction

Secure property rights allow individuals and households to retain the benefits of investments in housing, land or a business and even pass it on to their next generation. They create the possibility for households to use their land or their home as collateral for bank loans. Clear land rights reduce transaction costs in property markets by limiting uncertainty and the need for expensive verifications. Secured tenure creates the long-term incentives needed to manage natural resources such as forests in a sustainable manner. Households with secure rights to their home show increased participation in the labour market, invest in improving their housing conditions and realize educational benefits for their children. Conversely, insecurity of property rights can have the opposite effect and foster conflict. When people worry about losing their property, they find it more difficult to plan for their future.

In rural India, land continues to be an important asset for rural livelihoods. Nearly 90M agricultural households in rural India depend upon land<sup>42</sup>. The Reserve Bank of India's Committee on Medium term Path on Financial Inclusion stated in its December 2015 report "In agriculture, millions of small farmers live on the precipice, starved of credit. In the absence of bold structural reforms of land (record) digitization and tenancy certification to enable credit to the tiller, the problem is likely to persist".

The Global Property Rights Index (PRIndex) is the first-of-its-kind indicator to attempt to create a global dataset and index on citizens' perceptions of property rights. PRIndex is a baseline, multi-national dataset measuring how secure people feel about their rights to the land and property on which they live and work. This data will provide the grounding for a global conversation and movement around securing the property rights of billions who currently lack them, and has the potential to contribute to the Sustainable Development Goals (SDGs)<sup>43</sup>.

#### Objective and Rationale

Property rights provide the necessary foundation for people to build better lives for themselves and their families, ultimately driving sustainable economic growth in their countries. However, identifying, administering and maintaining property rights is a challenge for many countries around the world as governments often do not have information on who has those rights, and rights holders are not always able to protect them.

The perception of people in India on security of their property is unknown. To address the critical questions viz. Are people worried about their property rights or not? How do these perceptions affect citizens' decision-making and future planning? How can government and other actors focus on strengthening property rights? Land Alliance, with support from Omidyar Network, initiated a multi-state survey with Gallup in India in early 2016, and then carried out a second national test survey in 24 states and union territories in 2017 with Karvy Insights, which interviewed

42 Key Indicators of Situation of Agricultural Households in India, NSS 70th round Jan-Dec 2013

43 <http://www.prindex.net>

16,475 individual respondents. The focus of the test surveys was to examine the best ways to ask the questions about security of tenure, and the results provide a series of new insights into these questions.

Individual respondents across India were interviewed to gauge how secure people feel about their property. Do people worry that they may forcibly lose their land or their home? What drives feelings of security and insecurity? Are women more worried than men about their property rights? The results of this survey offer a better understanding of how secure people feel about their property and how this sense of security or insecurity affects the decisions they make about their future. The results of this survey can contribute towards more informed policy decisions, better business models, and more effective development assistance.

In this chapter we present three important indicators from the PRIndex test surveys 2017 dataset.

## Findings

### Tenure Security Perception

**Data Source:** PRIndex Database

**Parameter:** Percentage of households with tenure security

**Method:** Weighted dataset of respondents agreed to the question “How worried are you that you could lose the right to live in this <property>, or part of this property, against your will in the next 5 years?”

According to the PRIndex test, 77% of people in India do not feel worried about losing their rights over their properties. The state with the highest perceived security is Himachal Pradesh, where 92% of respondents report feeling secure over their land rights followed by Andhra Pradesh (87%), Jharkhand (86%), West Bengal (85%), Bihar (84%) etc. There are 15 states in which tenure security is higher than the national average. This also indicates that the tenure security of southern states (except Karnataka and Andhra Pradesh) are lower than the northern and eastern states. The western states like Maharashtra and Madhya Pradesh are also less secure than the national average. The least secure states are Puducherry, Chandigarh, Tamil Nadu, Telangana, and Kerala. Despite a high incidence of home ownership among the sample (76%)<sup>44</sup>, more than a quarter of respondents were worried that they may lose their home in the next five years.

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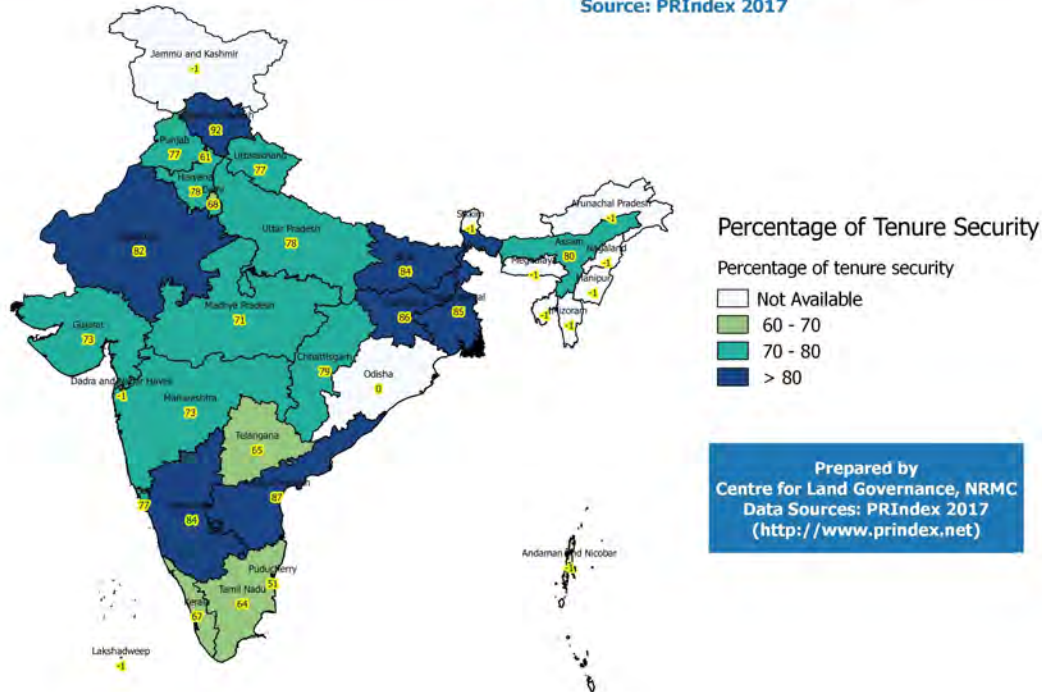
<sup>44</sup> Individuals not households



# State of Land Report India

## Percentage of Tenure Security

Source: PRIndex 2017



*Caveat: Data for 12 Indian States are not available, which are not included in calculating the national index. These are mostly north eastern states and Jammu & Kashmir.*

## Formal Tenure Documentation

**Data Source:** PRIndex Database

**Parameter:** Percentage of households with formal tenure documentation

**Method:** Weighted dataset of respondents agreed to the question “a) Do you have any of the following documents that demonstrate your rights to live in this <property>? b) What kind of documents do you have that demonstrate your rights to live in this <property>?”

Most Indians in the survey reported having formal tenure documents. States where more than 90% of respondents reported having formal tenure documentation are Assam (97%), Kerala (95%), Chandigarh (93%) and Punjab (92%); only about half of Indians in NCT Delhi (56%), Jharkhand (56%), and Gujarat (50%) reported having formal documents. Especially in Kerala and Chandigarh, having documents does not translate into higher perceived tenure security. In contrast, perceived tenure security is relatively high in Jharkhand despite a relatively low level of respondents possessing documents. In Tamil Nadu and Delhi, both perceived tenure security and documentation levels are relatively low. Owners who expressed worry about losing their home or agricultural land pointed to a lack of documentation as a major source of concern. Similarly, renters without documentation proving their rental status were more likely to be worried about losing their home than those who had documentation.



### Confidence on Authorities for protection of Tenure

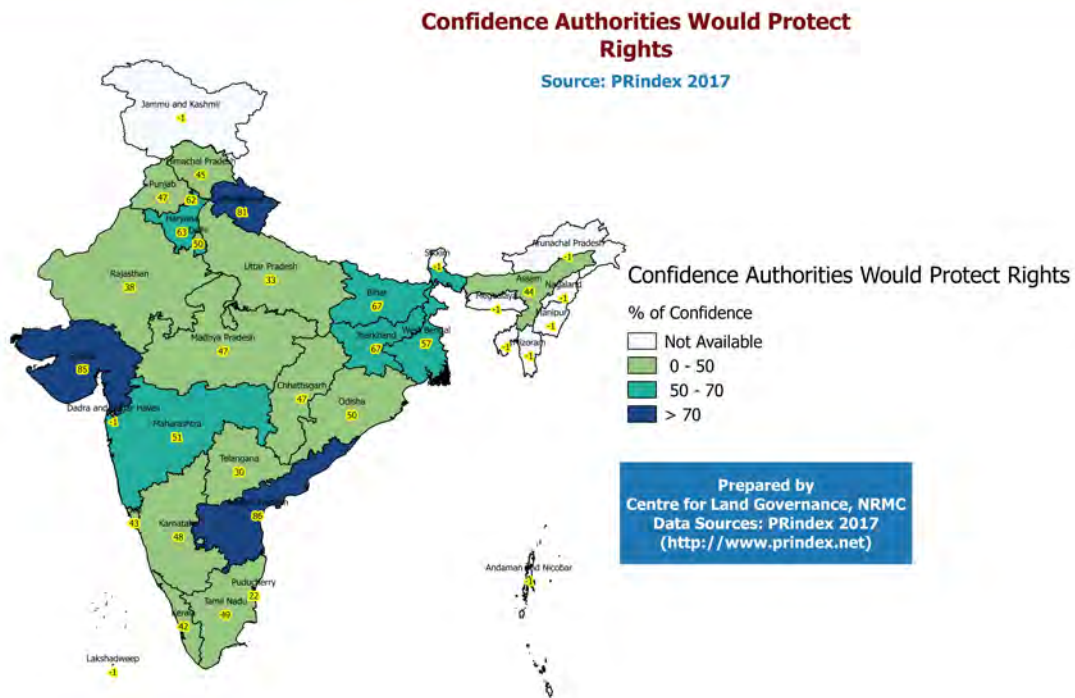
Data Source: PRIndex Database

Parameter: Percentage of households that have confidence in authorities to protect their tenure rights if those rights were challenged.

Method: Weighted dataset of respondents answering ‘Very Confident’ or ‘Confident’ on a 5-pt scale to the question “How confident are you that the authorities would protect you if somebody tried to take away your right to live in this <property> and force you to leave?”

Respondents reported varying levels of confidence in authorities to protect their property rights in the event of a threat. Respondents in the states of Andhra Pradesh, Gujarat and Uttarakhand lead the list with 86%, 85% and 81% respectively expressing the perception that the government authorities would protect their tenure rights. Respondents from Goa (43%), Kerala (42%) and Rajasthan (38%) expressed lower levels of confidence in the authorities to protect their property rights.

## State of Land Report India



*Caveat: Data for 12 Indian States are not available, which are not included in calculating the national index. These are mostly north eastern states and Jammu & Kashmir.*

### Discussions

The results of the PRIndex test surveys on citizen perception of tenure security highlight the large absolute numbers of individual Indians who feel worried about their property rights. PRIndex provides a new tool (though still being refined) to generate primary information around perception of property rights that will have critical implications on policy, business, and sustainable development. Being a non-government initiative it has its own

advantages as well as challenges. However in the data space, it brings in a robust option to supplement and complement data vacuums and supports government efforts to report and monitor progress on the SDGs. In the absence of standard household surveys capturing such land data, PRIndex can also help SDG land indicators to move to Tier I and thus become an institutionalized metric of tenure security worldwide.

The methodology tested, validated and refined by PRIndex has potential uptake among land stakeholders, while their critique and contribution also would potentially enrich the process and make it more robust and efficient. In a country like India with a strong history of land governance, pluralistic and diverse legal and institutional framework, elaborate architecture of land information recording and reporting, third party and independent surveys like PRIndex provide immense opportunities for states to reflect upon and improve measures to improve perceptions of tenure security among their citizens. However in order for PRIndex get acceptance and buy-in from government and other important stakeholders, active interfaces and dialogues are essential in its formative stage. Forward and backward feedback loops among these stakeholders can improve the process, reliability and impact of such datasets. PRIndex datasets are now available in CSV format. Subsequently, in line with open data standards, these data can be shared and disseminated in other inter-operable formats that make them more discoverable.

## Chapter 4: Landless, Homestead-less, House Ownership

The dichotomy of defining landless is a challenge. NSSO counts those having less than 0.002 ha and Agriculture Census counts with less than 0.5 ha. SECC does not define landless.

Landlessness and dependence on manual casual labour for a livelihood are key deprivations facing rural families. Socio-economic census figures indicates that they are far more vulnerable to impoverishment than indicated by a plain reading of the census data.

The India Rural Development Report of 1992, indicated nearly half of the country's rural population was absolutely or near landless. The NSSO survey estimated that half of all urban households were landless with a ratio of one in 10 in rural areas.

## Chapter 4: Landless, Homestead-less, House Ownership

Center for Land Governance, NRMCC Bhubaneswar

### Introduction

Land has always been characterized as a means of livelihood, food security and dignity of an individual being a key asset for both rural and urban poor. It provides a foundation for economic activity and the functioning of market (e.g. access to credit) and nonmarket institutions (e.g. local governments and social networks) in many developing countries. The bulk of poverty in India is found among those with no land or insufficient land with which to feed them. (Baidya, 1985)<sup>45</sup> Landlessness and dependence on manual casual labour for a livelihood are key deprivations facing rural families found out socio-economic caste census in 2011. As per All India Agricultural Workers Union (AIAWU) growth of the landless in rural society has been steadily rising from 28.1% in 1951 to 37.8% in 1971, 40.3% in 1991 to around 55% in 2011<sup>46</sup>.

Post-independence of India, the Indian states enacted a series of land reforms intended to both improve equity in land distribution and improve efficiency in agricultural production. These reforms succeeded in reallocating some of the land in India; for instance 8.5 million hectares under tenancy and ceiling laws alone – from large holders to the landless and land poor. However, the reforms were plagued by loopholes and faulty implementation, and actually harmed the poor in some instances, usually through unintended consequences. For example, to avoid the application of land ceiling laws and laws granting owner-like rights to tenant cultivators, many landlords evicted poor tenants and reduced the amount of land leased to tenants, adding to landlessness (Hanstad and Nielsen 2007; LRAM 2003a).

### Objectives and Rationale

While landlessness remains the *raison d'être* for persistent poverty in rural India, and the growing inconvenience, uncertainty and deprivation in expanding urban India (along with homesteadless), data on landlessness and homesteadless remain inconclusive and debatable. With global commitments of SDG (Goal 1.2 and 2.3) towards **ownership, secure access and control over land** and the mandate of a welfare state to address poverty, housing and welfare, reliable and transparent information on landlessness is critical for an informed policy and actions.

#### How many Indians are Landless?

In 2015, finance minister Arun Jaitley said 300 million people do not own land, while launching the government's Mudra refinancing scheme for micro enterprises. "The current estimate for India's landless is around 100 million households, which would constitute at least 300 million of our population," M.J. Akbar wrote in his column in the Times of India on 5 April 2015. The draft national land reforms policy released in July 2013 said 31% of all households are landless. That number is derived from a 2003-04 survey of the National Sample Survey Office (NSSO). This NSSO survey estimated that half of all urban households were landless; the ratio was one in 10 in rural areas. Assuming an average household size of five, the total landless population works out to be 200 million. As per a 2008 paper by Vikas Rawal of the Centre for Economic Studies and Planning, Jawaharlal Nehru University, 41.63% of rural households were landless. That works out to 61.5 million households and 307 million people in rural India alone.

Source : <http://www.livemint.com/Opinion/PUzqHSs3xejXk4hm2djTPM/How-many-Indians-are-landless.html>

<sup>46</sup> <https://www.ncmmimngv7/public/2220000>  
<sup>46</sup> <https://newsclick.in/agricultural-workers-demand-rights-indias-rural-landless>

There are arguments that the problem of landlessness is grossly exaggerated<sup>47</sup>. Data on landlessness has been reported differently by different sources. Although the sources are credible government surveys, yet there are differences, which could be attributed to the differences in methodologies and the approaches of survey. There are different definitions<sup>48</sup> landlessness adopted.

This chapter attempts to present the status of landlessness both in rural and urban context by combining these datasets, by reflecting on dimensions of landlessness, homesteadlessness and houseless in a composite manner. The national datasets used for the preparation of the report are Agriculture Census 2011, Population Census 2011, Socio Economic Caste Census (2011), Household ownership and operational holding in India, NSSO 70<sup>th</sup> Round 2013, NSSO Land and Livestock Report, 2003-04 and draft national land reforms policy 2003. Data from these sources though have differences, provide substantial insights into landlessness in India. While questions have been raised on the methodologies and data collection and analysis processes, the approach adopted here is more about exploring if a more balanced picture can emerge by combining these data sources. The data have been used to construct some indicators for better appreciation of landlessness from various dimensions with a composite view. Land being a state subject, the status is presented state-wise for better comparative appreciation.

## Findings

### Landlessness Index

**Data Source:** : a) Socio Economic Caste Census, 2011, b) National Sample Survey Office (NSSO), 70<sup>th</sup> Round, 2013 and c) Agriculture Census, 2011 and Census, 2011

**Parameter:** Percentage of number of landless households<sup>49</sup> from SECC, Percentage of landless households<sup>50</sup> as per NSSO, Percentage of landless households as per Agriculture Census and Census<sup>51</sup>

**Method:** Geometric Mean<sup>52</sup> three datasets from SECC, NSSO and Agriculture Census

This is an attempt to combine three different sets of data with an idea of harmonization to provide a blended picture of landlessness by using Geometric mean.

The landlessness as per SECC (2011) is 56.4% (Landless households with dependent only on manual casual labour is 30%), while as per NSSO (2013) 7.41% equivalent to 11.56 million (10% or 14.84 million in 2003) and 29.7% taking into account the different of total rural households and number of operational holdings. While the NSSO data provides a far lower figure and SECC a higher one, the difference between Census and Agriculture Census is between the two. However the country level pictures are not same at state level, with some states showing higher landlessness as per Agriculture and population census than SECC.

Based on the methodology adopted for this index, the overall landlessness index is 23.15% in India. The landless index are highest in the eastern and southern coastal region including the state of Gujarat, some north eastern states and northern hill states with more than 20% households. The central and south-west region of India has landless index between 10-20%. The landless index in the UTs tops the list with more than 50% landless

<sup>47</sup> <https://ageconsearch.umn.edu/bitstream/182462/2/IAAE-CONF-155.pdf>

<sup>48</sup> There are three alternative definitions for the 'landless' in rural areas: (a) those who own no land; (b) those who operate no land; and (c) those whose major source of income is wage employment. <https://ageconsearch.umn.edu/bitstream/182462/2/IAAE-CONF-155.pdf>

<sup>49</sup> Percentage of households with no land <http://secc.gov.in/statewiseLandOwnershipReport?reportType=Land%20Ownership>

<sup>50</sup> 'less than or equal to 0.002 hectares as classified under 'landless' category, also includes plots where area is not reported

<sup>51</sup> The difference between total number of rural households as per Census, 2011 and total number of operational holdings as per agriculture census 2011

<sup>52</sup> While compositing the data from the different surveys, geometric mean was used instead of arithmetic mean as the former reduces the level of substitutionality. Preferring geometric mean is in line with the method employed by UN for computing the HDI since 2010

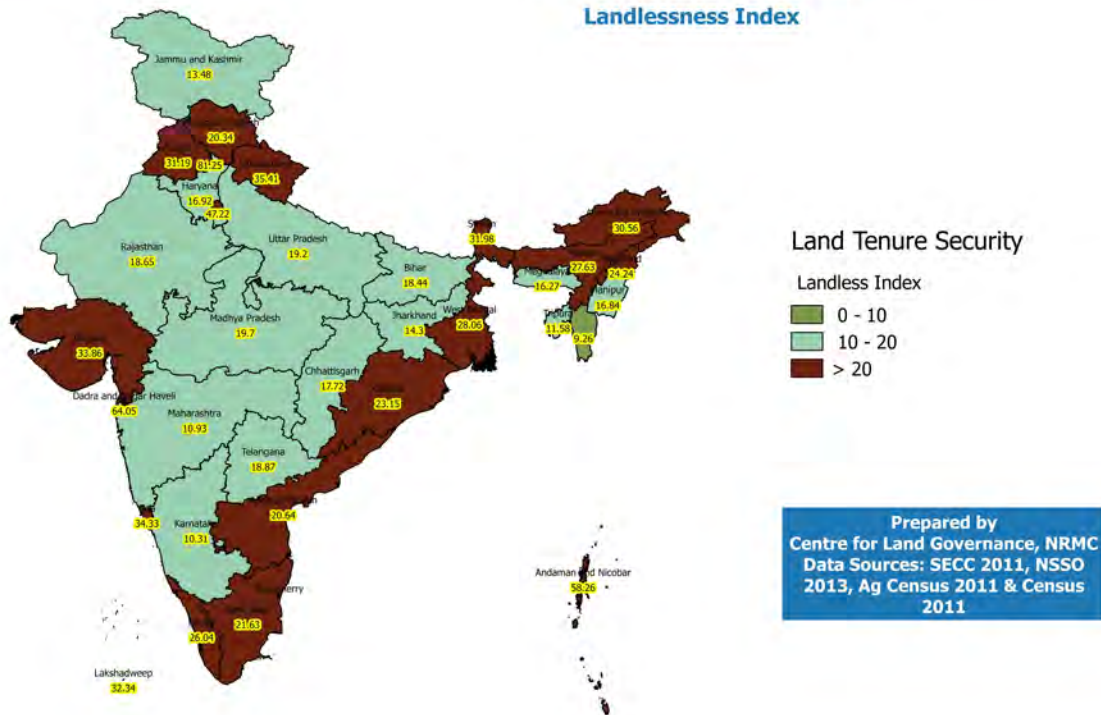
households. The top three states from main land India are Uttarakhand (35.41%), Goa (34.33%) and Gujarat (33.86%). The bottom two are Maharashtra (10.93%) and Karnataka (10.31%). There are 18 states and UTs which have landless index more than the national index. The states at par with the national landless index are Odisha (23.15%), Tamil Nadu (21.63%) and Andhra Pradesh (20.64%).

*Caveats: Third set of data for Landlessness was calculated by deducting the total number of operational holdings (individual) as per Agriculture Census 2011 from total number of rural households from Census 2011, with an assumption that operational holdings represent single rural household, which may be incorrect, as in some states like Kerala, there are more number of operational holdings than number of rural households. Usual caveat for NSSO and SECC remains applicable*

## State of Land Report India

### Land Tenure Security

#### Landlessness Index





**Homestead less**

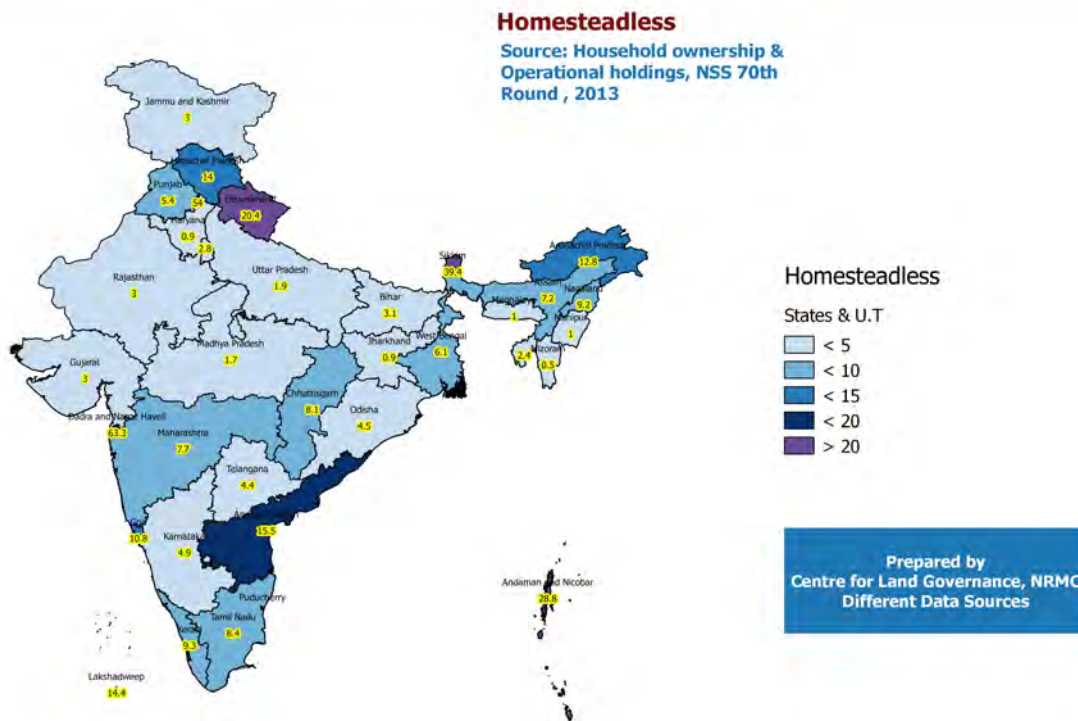
**Data Sources:** NSSO 70<sup>th</sup> Round – Household ownership and operational holding 2013.

**Parameters:** Per 1000 distribution of households with homestead site ownership holding

**Method:** Conversion of per 1000 households with nil average area of homestead land per households to percentage terms.

NSSO has defined in its 70<sup>th</sup> Round (Household ownership and operational holding) homesteadless as having nil (no or zero area) ownership holding by the households. The homesteadless counts of households almost matches with the landless households reported under NSSO; however, while analysing the state specific data, a different trend is noticed in the states of Karnataka (4.90%), Maharashtra (7.7%), Gujarat (3%) and Delhi (2.8%), where the proportion of homesteadless households are quite lower as compared to the percentage of landless households. The overall index of homesteadless is 6.7% and 17 states including the UTs are above the national index of homesteadless-ness. The lead states with higher number of homesteadless households are Sikkim (39.4%), Uttarakhand (20.4%), Andhra Pradesh (15.5%), Himachal Pradesh (14%), Arunachal Pradesh (12.8%) and the lead UTs are Dadra & Nagar Haveli (63.3), Chandigarh (54), A&N Islands (28.8%) etc.

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*Caveats: Usual caveat for NSSO data on sampling and methodology is applicable here. These households do not have homesteadland, but may have other lands.*

**Houseless**

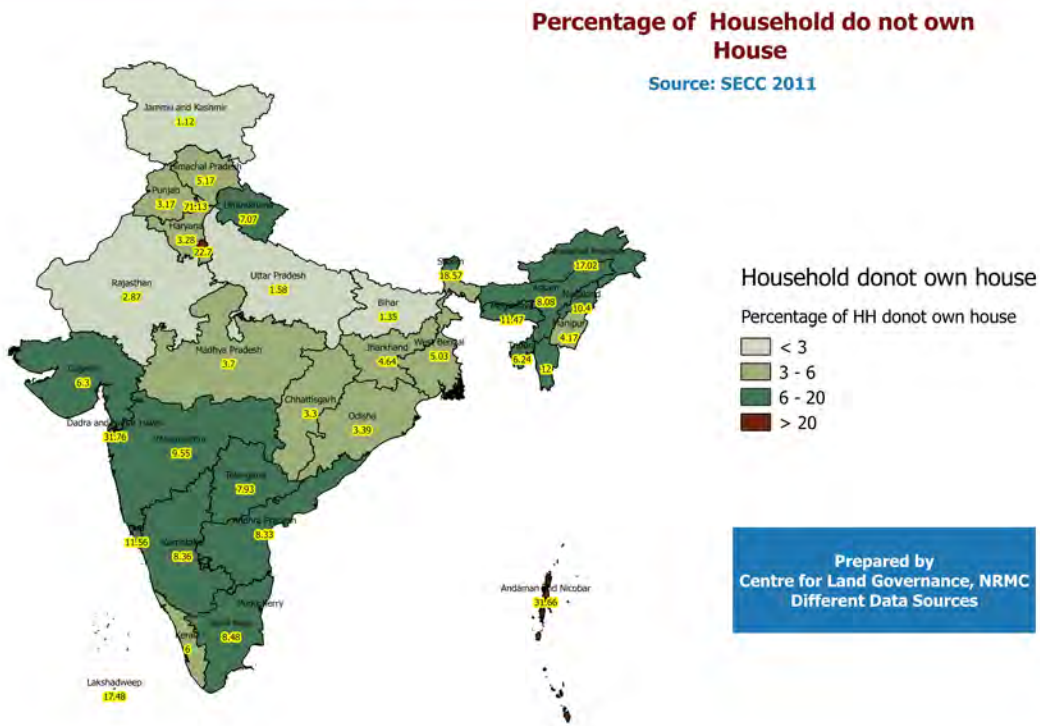
**Data Sources: Socio Economic Caste Census 2011**

**Parameters: Percentage of households without ownership of house (all and women only)**

**Method: Difference of households with ownership of house from total households reported under SECC (all and women)**

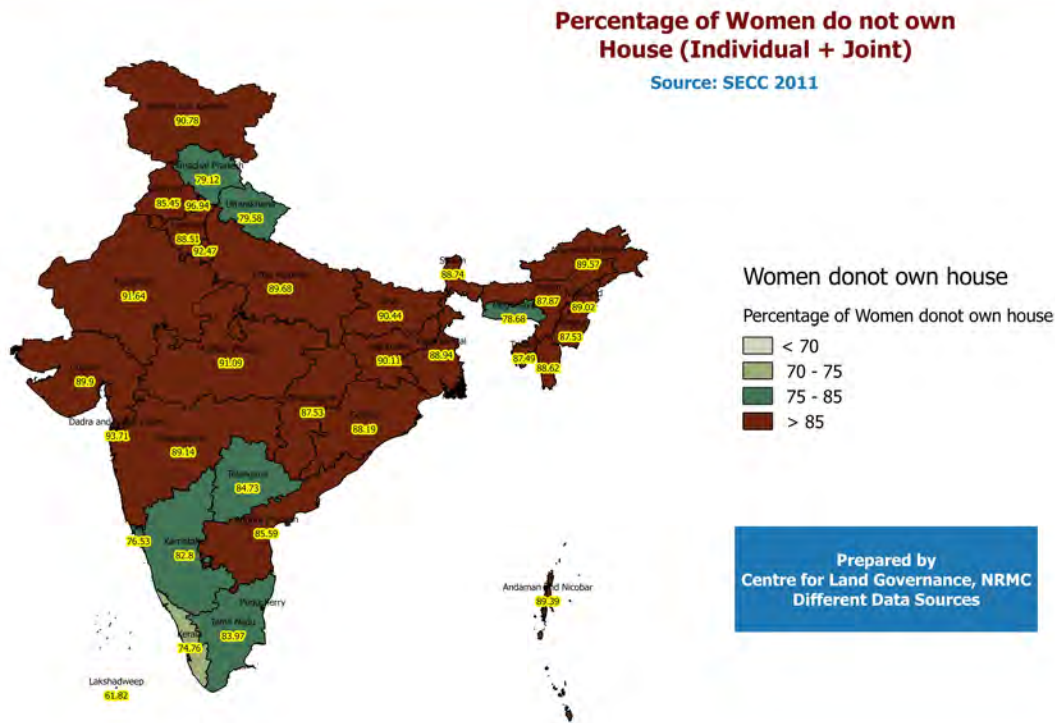
The houseless index has been constructed from the data on ownership pattern of house reported under SECC 2011. The all India houseless index is calculated to 5.09%. The most houseless are in UTs including NCT of Delhi with an index of 24.33%. The northeastern states, southern and western states are above the national index for houseless with 8.39%, 7.95% and 6.66% respectively. The eastern and northern states are below national index with 3.31% and 3.13% respectively.

**State of Land Report India**



When the houseless index is calculated for women, the figures are completely contrast with 87.87% of women found to not have ownership over their house either single or jointly. And the trend is so linear that across the region the values are more or less same. In almost all states more than 70% of women do not own houses. While southern states like Kerala followed by Karnataka, Tamil Nadu, Telengana and northern states like HP and Uttarakhand have comparatively better status with upto 30% women owning houses, in other states less than 15% women had ownership of houses.

# State of Land Report India



*Caveats: The data only represents the households do not own a house reported under SECC 2011. It does not include the households with rented or other form of accommodation reported under SECC 2011. Other methodological caveats of SECC apply.*

## Discussions

Data and debate on landlessness remain inconclusive. Many researcher feel that landlessness like poverty is always overestimated The India Rural Development Report of 1992, indicated nearly half of the country’s rural population was absolutely or near landless. The draft national land reforms policy<sup>53</sup> released in July 2013 mentioned 31% of all households in India are landless. The NSSO survey in 2003 estimated that half of all urban households were landless with a ratio of one in 10 in rural areas. According to National Sample Survey Organization (NSSO) data (2003-04) about 41.63% of households do not own land other than homestead. The 2013 NSSO survey covered only the rural areas and showed that the proportion of landless households decreased to 7.4%, or 11.56 million households and 57.7 million people. The definition of landlessness by NSSO has been changed over a decade by reducing the ownership limit from 0.4 ha to 0.002 ha per household<sup>54</sup>. This has resulted in change in percentage of landless households over a decade (from 41.63 in 2003 to 7.41 in 2013).

For a common man, media as well as decision maker, all these datasets are legitimate being carried out by specialized government agencies, with legal back up. Therefore perceptions, interpretations and decision do

<sup>53</sup> This number is derived from a 2003-04 survey of the National Sample Survey Office (NSSO), however the definition of landless is unclear in the said survey.

<sup>54</sup> According to NSSO, landless is defined as possessing land below 0.002 hectares, or 215 sq. ft.

influence by each of these datasets though they provide different macro and a diversity of macro pictures. In this chapter an attempt has been made to see if the combination of these datasets can provide another option to look at these datasets in a different manner. While the data on housing is presented using single datasets (viz. NSSO, 2013 for homesteadless and SECC, 2011 for houseless), there is also scope to further buttress them with other such datasets with population census, NFHS etc.

## Chapter 5: Land Record Digitization

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## Chapter 5: Land Record Digitization

### National Council of Applied Economic Research (NCAER)

Deepak Sanan<sup>55</sup> and Prerna Prabhakar<sup>56</sup>

#### Abstract

India recorded a spectacular improvement from 130 to 100 in the World Bank's Ease of Doing Business (EoDB) rankings for 2018. An important component of this index is the ease of registering property which also seeks to capture the quality of land administration. Despite the overall jump in EoDB ranking, India has dropped sixteen ranks in the "ease of registering property" subcomponent, from 138 to 154. This slippage represents a huge potential for creating an improved environment for business by removing rigidities with regard to land markets and institutions. The significance of better land records in security of tenures and an improved property rights scenario has long been recognized by the central government. Programmes aimed at computerizing and modernizing land records were initiated in the late 1980's. In 2008, the Department of Land Resources (DoLR), Ministry of Rural Development (GOI) amalgamated two earlier schemes and launched the National Land Records Modernization Programme (NLRMP). This was rechristened the Digital India Land Records Modernization Programme (DI-LRMP) in 2014. Although this programme has been in operation for many years, no independent evaluation had been undertaken. In this context, a pilot impact assessment of the DI-LRMP was undertaken in three states by three institutions. The National Council of Applied Economic Research (NCAER) carried out an assessment in Himachal Pradesh, the National Institute of Public Finance and Policy (NIPFP) in Rajasthan and the Indira Gandhi Institute of Development Research (IGIDR) in Maharashtra. The selection of these states catered to factors like ensuring diversity both geographically and in terms of land administration systems. On the completion of the three state study, the NCAER prepared a synthesis report which compared the findings across the three states.

This chapter aims to discuss the status of land record digitization as reported by DoLR on the DI-LRMP Management Information System (MIS) for the whole of India and further to present a comparison of the status on the DoLR website with the findings of the three state impact assessment. Digitization of land records serves little purpose if the information provided does not reduce conflict, dispute and litigation in relation to land and property. A comprehensive and accurate record, updated in real time, is critical if this objective is to be achieved. In order to make some comments about the accuracy of the digitized land records, this chapter also includes a discussion of the findings of the impact assessment with regard to the extent of consistency between the land record and the on ground situation. This comparison of the record and the on ground situation was conducted for sample land parcels in two selected tehsils in each of the three states. The comparison between the on ground situation and the record was conducted with respect to five features of each land parcel— ownership, possession, land use, extent or area and encumbrances. Consultations with officials dealing with land record administration to secure suggestions to better pursue the core objective of a better record and changes in the DI-LRMP in this context, were part of the work done in this study. Suggestions emanating from the study in this regard are also discussed in this chapter.

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<sup>56</sup> Associate Fellow, National Council of Applied Economic Research (NCAER)

### Key Messages

In the computerisation of land and associated records, DoLR's MIS highlights the greatest achievement with respect to computerized RoRs and the least achievement with respect to integration of RoRs with digitized CMs.

There is lack of clarity with regard to what computerization of mutation is meant to convey – does it refer merely to an online entry of an application for mutation or does it capture the final change in the RoR?

The MIS does not appear to seek information on availability of digitally signed copies of the spatial record.

The registration process is characterized by multiple steps which are not captured by the DoLR MIS- only the information pertaining to online availability of circle rate is provided.

It is unclear what the Integration of registration and RoR means as per the DoLR MIS- does it mean that the registration process checks RoR details to verify details in the proposed deed? Does it mean an immediate note in the RoR on a registration event or does it go even further and mean an instant update of the RoR following the registration?

Financial performance of DI-LRMP exhibits underutilization of the funds allocated and released by the centre to the states and the financial information in the MIS on expenditure by the states does not appear to be updated regularly.

The Impact Assessment (IA) data and the DoLR MIS are more or less consistent with regard to the physical progress with regard to computerisation in most of the land record categories. It does however, highlight the need for more accurate reporting by states.

The comparison of land records with the on ground situation in the IA brings out the fact that even with significant achievement in computerizing the land record, real time updating of land records on various dimensions is still some distance away.

Based on the focus group discussions and state consultations with revenue officials, IA exercise provides suggestions for improving real time updation of land records, improving DI-LRMP design and effective ways of data reporting by states on DI-LRMP MIS.

## Introduction

India's relatively low ranking on the World Bank's Ease of Doing Index is in part caused by poor performance on 'the ease of registering property', which also seeks to capture the quality of land administration. It has been estimated that land market distortions account for about 1.3 per cent of lost annual economic growth<sup>57</sup> and a significant number of land parcels in India are the subject of litigation<sup>58</sup>. In this context, it has been suggested that conclusive titling needs to be adopted as a way of reducing litigation and associated transaction costs, and consequently improving the "Ease of Doing Business". An essential first stage, in seeking to achieve such an objective, is a better existing record of land and property.

The importance of modernising land records through the application of technology has been recognized for a long time in India. After running two parallel programmes on computerisation and modernisation of land records for many years, the Government of India (Department of Land Resources (DoLR), Ministry of Rural Development) amalgamated these programmes in 2008 into a new centrally sponsored scheme called the National Land Records Modernisation Programme (NLRMP). The NLRMP, which projected conclusive titling as the ultimate goal of land record modernisation, has now been made a central scheme and renamed as "The Digital India Land Records Modernisation Programme (DI-LRMP)". The main aims of DI-LRMP are enunciated as the provision of a system of updated land records, automated and automatic mutation, integration between textual and spatial records, inter-connectivity between revenue and registration, and finally the replacement of the present deed-based registration and presumptive titling system with conclusive titling including guarantee of the title.

In effect, the objective of the DI-LRMP is to facilitate the setting up of a modern and efficient land records management system in the country with land records updated in real time. The main components of the programme are:

- Computerisation of the records of rights (RoRs)
- Digitisation of maps and survey / resurvey of land to create more accurate spatial records,
- Computerisation of the registration process; and
- Integration of all these three activities / data bases.

Given the existence of the programme for almost a decade, there was some discussion around the need for an impact assessment of DI-LRMP. In this context, before a nationwide exercise, a pilot impact assessment was undertaken. The pilot was jointly conducted by three Impact Assessment Agencies (IAA) and one overall coordinating agency (OCA). The National Council of Applied Economic Research (NCAER) was both the IAA for the first state (Himachal Pradesh) as well as the OCA for the project. The National Institute of Public Finance and Policy (NIPFP) was the IAA for the second state (Rajasthan) while the Indira Gandhi Institute of Development Research (IGIDR) for the third state (Maharashtra)<sup>59</sup>. The three states were selected to capture some of the variations in the geographical context as well as land administration systems in the country.

This chapter examines the status of land record digitization in the country as brought out by the DoLR website and the extent to which this is borne out by the impact assessment study. In this context, section 2 of the chapter points out the extent of digitization stated to have been achieved by all the states of the country as per the DoLR website. It also briefly discusses the financial progress under the DI-LRMP (including its predecessor the NLRMP) for India as a whole. Thereafter, section 3 presents a comparison between the status of land record digitization in the three states brought out by the impact assessment study and the DoLR's DI-LRMP MIS. It also looks at the three

<sup>57</sup> McKinsey Global Institute 2001.

<sup>58</sup> Daksh (2016), a civil society organization in India, as per which two-thirds of the civil cases in districts courts pertain to land/property issues.

<sup>59</sup> NCAER 2017a, IGIDR 2017, and NIPFP 2017, NCAER 2017b



state data on financial progress in order to draw attention to the accuracy and consistency of the data on the website. Section 4 of the chapter is about the findings of the impact assessment study with regard to the extent to which the land records are an accurate, comprehensive and up to date mirror of the actual position on the basis of a comparison between the land record and the on ground situation. Finally, section 5 offers suggestions to address the various shortcomings brought out in the preceding sections. These include suggestions to increase the accuracy and usefulness of the data being collected by the DoLR to monitor progress in digitization of the land record, improvements with regard to the DILRMP programme as well as improving the real time accuracy of the record.

## Land record digitization: DoLR

The DoLR website shows the up to date status of land record digitization in India as reported by the states on the following components– Record of Rights (RoRs), Cadastral Maps (CMs), Registration process and the integration across these key components. Table 1 below attempts to capture the overall India picture in this regard. The first column provides the percentage of digitization in the country as a whole for the various components of land records that are sought to be digitized. The next four columns mention the number of states under brackets of digitization percentage for the mentioned categories of land records.

**TABLE 1: STATUS OF LAND RECORD DIGITIZATION (YEAR 2018)**

	Digitization percentage	Number of States with				
		India's digitization percentage	0-5% digitization	6-50% digitization	51-90% digitization	91-100% digitization
RoR computerization (percentage of total REs /villages)	86.35	5	6	8	17	
Mutation computerized (percentage of total villages)	47.23	11	8	7	10	
Digitally signed RoR (percentage of total villages)	29.57	23	4	4	5	
Digitized CMs (percentage of total CMs)	46.37	2	5	3	16	10
Number of REs in which Cadastral Maps linked to RoR (percentage of total REs)	26.64	25	7	3	2	
Web based computerization of registration process (percentage of total SROs)	54.49	18	5	2	11	
Circle rate online (percentage of total SROs)	69.36	14*	4	3	14	
Integration of registration process with RoRs (percentage of total SROs)	52.26	20	3	3	10	

**Source:** Website of Department of Land Resources, Ministry of Rural Development, Government of India. Accessed on 1-2-2018

An analysis of the information in Table 1 (read with the information in the table A1 in the annexure) brings out the following.

1. The country as a whole appears to have made significant progress in computerizing RoRs, with a country wide percentage of 86.35% of the revenue estates or villages now possessing a computerized RoR. All major states show an above average coverage. Yet how significant is this achievement in making available a more comprehensive and up-to-date record is difficult to make out from this information. The

computerisation of mutations, in which the achievement is only a little over half of that for digitization of the RoR, may point to a considerable gap in this regard. This data on the computerization of the mutation process, does not really enable a comment on whether this ensures a ready availability of an updated record. This computerization may, in fact, be entirely unrelated to the time gap between attestation of a mutation and its incorporation in the record. In effect, computerization of the RoR, could be a one time exercise which can certainly enable timely updating of the record but does not necessarily reflect that this is actually occurring. A digitally signed RoR is a good measure of a facility that aids the public. This achievement on this front is only a little more than a third of the extent to which RoRs are digitized. Significant achievement is reflected in only a few states. Furthermore, what is the extent to which digitally signed copies of the RoR are readily available on the web may be more meaningful information than just the extent of computerisation of the textual record.

2. Digitisation of CMs is a step towards improving public access to the spatial record. Reported performance in this is only a little over half of that reported with respect to computerization of RoRs. Meaningful availability of this record can occur only when it is linked to the RoR. In this respect achievement drops to only 26.64%. There is no indicator to gauge the extent to which this digitized spatial record is being made available on the web in a digitally signed form. Updating this spatial record in real time would require integration with RoRs which in turn should be integrated with the registration process. The figures would appear to show that achievement on this front is likely to be very low.
3. Computerisation of the registration process can represent both a major improvement in delivering a service to the public as well as being an important step in enhancing the availability of a comprehensive record of transactions related to property. The current data shows that over 54% of the SROs in the country are computerized. However, this information is insufficient to comment on two important aspects. How far does this relate to actual property related transactions? Placing computerization in the context of transaction intensity will enable a better idea of the extent to which the public has been facilitated than the number of SROs covered. More significant is the fact that a blanket assertion of computerization of registration can cover a lot or very little! Thus, a fully computerized process can cover all steps in registration from web based entry of data pertaining to a proposed registration through checking of circle rates on the web, payment online of relevant fees and duty, the SRO being able to scrutinize and verify details and digitally affix her signature online to immediate electronic delivery of the registered document. The current information enables at best a comment on the extent to which circle rates are available on line (and even these may not be updated rates).
4. Finally, integration of data bases of registration with RoR is shown to have reached 52.28% in the country. This is shown as a percentage of SROs. It would be more meaningful if this was expressed in terms of the revenue estates or villages that are integrated with the registration process. A more serious lacuna related to the fact that this information does not allow us to ascertain how far this integration translates into a record that is updated in real time. Does this mean that as soon as a transaction relating to a property is registered, the RoR receives a notification in this regard? It does not enable us to know the extent to which it enhances the credibility of the registration process. Is it the integration of a reliable RoR from which various details are checked at the time of registration?

Overall, it can be said that the status of land record digitization as per the DoLR MIS reflects the greatest achievement with respect to computerized RoRs and least achievement on integrating RoRs with digitized CMs. After almost three decades of effort, the results are not very heartening. However, even more disconcerting is the fact that even this information does not really allow definite comments with regard to the extent to which comprehensive, accurate records updated in real time are being generated with this technological input. The MIS also needs improvement in order to be able to see the extent to which the computerisation efforts have actually facilitated the public.

## Financial progress under DI-LRMP

The financial picture of DI-LRMP implementation indicates considerable underutilization of the funds allocated and released by the centre to the Indian states (Table 2). The DI-LRMP comprises various components under which funds are sanctioned. This either reflects a failure by the states to report expenditure on the MIS or shows that the central programme has serious design issues that constrain expenditure under it. It would seem that even much of the physical progress recorded on the website may not have been undertaken by the states under this programme. Many of these components under the NLRMP (when it was a centrally sponsored scheme) had different matching requirements from the states. This also possibly induced the states to seek more funding under segments with a higher central share, which did not necessarily translate into the concomitant expenditure.

**TABLE 2: FINANCIAL PROGRESS OF DI-LRMP (2008-09 TO 2017-18) (RS LAKH)**

	Funds Sanctioned by Centre	Funds Released by Centre	Expenditure (as Entered by State/UT)	Fund Utilization (expressed as a %age of funds released)
<b>Total</b>	192673.1	115908.8	12067.89	10.41

**Source:** Department of Land Resources, Ministry of Rural Development, Government of India.

## Status of Land Records: Impact Assessment study

### *Physical Progress*

Information regarding the status of computerization of land records in the states covered by the impact assessment study was canvassed through questionnaires drafted jointly by the three institutions engaged in this exercise. Information obtained from the MIS of the DI-LRMP was verified with the concerned department of the state government, and where relevant, with the National Informatics Centre at the state level. As a part of the assessment of state level computerisation of land records, the claims made by the state government were verified by performing random test checks.

Broadly, the land record digitization status of these three states (Table 4) shows considerable difference in emphasis. HP has taken the lead in computerising textual records (RoR) and making available digitally signed copies of RoRs. Maharashtra has clearly marched ahead in terms of digitization of the registration process while Rajasthan is catching up in this regard. In digitizing cadastral maps, HP has made most progress, with the other two states still at a nascent stage. With respect to integration of RoR and CM data bases, maximum progress is again witnessed in HP. Even the registration and RoR linkage, is most visible in HP in practice.

### *IA and DoLR comparison*

The IA report had shown the overall achievement reflected on the DoLR website data and the status of the three states in this context in early 2017. This information is reproduced in table 3 below.

**TABLE 3: PROGRESS ACHIEVED IN THE THREE PILOT STATES REGARDING VARIOUS COMPONENTS OF DI-LRMP**

Component	Total number of States/Union Territories reported to have completed the component activities	Number of pilot states reported to have completed the component activities
Computerisation of Land Records	27	3 (Himachal Pradesh, Maharashtra and Rajasthan)
Computerisation of property Registration	30	3 (Himachal Pradesh, Maharashtra and Rajasthan)
Integration of land records and property registration	11	2 (Himachal Pradesh and Maharashtra)
Stoppage of manual issuance of RoR	18	1 (Maharashtra)
Data Placed on Websites	22	3 (Himachal Pradesh, Maharashtra and Rajasthan)
Bhu-naksha (Cadastral Maps) customised	15	3 (Himachal Pradesh, Maharashtra and Rajasthan)
Digitally Signed RoRs	7	1 (Rajasthan)
Integration of Bhu-Naksha and RoR	5	-

**Source:** DI-LRMP Pilot Impact Assessment study, NCAER, 2017

As is obvious from the above, the achievements were shown in a binary form of whether a particular action had been performed or not. As such, a state had either computerized RoRs or it was still to do so. The IA revealed the need to nuance how this achievement on various components is exhibited if it is to be meaningful. Even as a binary construct, the information was not completely accurate. Both on digitally signed RoRs and integration of spatial and textual records, it did not show Himachal Pradesh amongst the achievers. With over 97% RoRs available in digitized form, this was probably amongst the highest in all states. Instead Rajasthan which barely registers a presence on this component figured as an achiever. Similarly, on integration of textual and spatial records, HP is one of the few states to have made a start on this but had not posted its achievement (not humility on the state's part, just plain failure to report on the MIS!).

In order to make a more meaningful comparison, data obtained in the course of the IA exercise and that reflected on the DoLR website currently, is presented in Table 4 below. This comparison has to take into account the fact that the IA data largely relates to 2016 and the comparable figures are those currently on the DoLR website. Some variation is likely due to this fact. Another problem in comparing the figures is that the IA has not necessarily captured the information in the same way as required by the MIS. Eg. The IA did not seek information on the computerisation of mutations since per se this information has little relationship with more efficient updating of the record which is more likely to be captured by the integration of the registration and RoR data bases and the facility of registered transactions being immediately noted in the RoR in some form. With respect to computerization of the registration process, the IA obtained information on the various stages of the process and not as an omnibus single indicator of computerization of registration (Table 4).

**TABLE 4: LAND RECORD DIGITIZATION STATUS: COMPARISON  
BETWEEN IMPACT ASSESSMENT AND DoLR DATA**

		Himachal Pradesh	Maharashtra	Rajasthan
RoR computerization (percentage of total villages)	IA	97.6	99.01	96
	DoLR	99.9	98.83	96.6
Mutation computerized (percentage of total villages)	IA	n.a	n.a.	n.a
	DoLR	1.54	98.84	8.65
Digitally signed RoR (percentage of total villages)	IA	97.6	0.0	7.6
	DoLR	85.7	0.03	7.6
Digitized CMs (percentage of total REs / CMs)	IA	17.91	3.8	0.0
	DoLR	99.8	3.6	5.12
Number of REs with Cadastral Maps linked to RoR (percentage of total villages)	IA	17.91	0.0	0.0
	DoLR	34.2	0.0	0.02
Web based computerization of registration process (percentage of total SROs)	IA	0.0	n.a.	n.a
	DoLR	0.0	96.8	4.5
Circle rate online (percentage of total SROs)	IA	100.0	96.8	100
	DoLR	100.0	96.8	33.4
Integration of registration process with RoRs (percentage of total SROs)	IA	97.6	n.a.	n.a
	DoLR	100.0	96.6	1.71

**Source:** DI-LRMP Pilot Impact Assessment study, NCAER, 2017 & Department of Land Resources, Ministry of Rural Development, Government of India.

1. RoR digitization shows consistent results in the case of all the three states, with only HP showing a slight mismatch between the IA and DoLR figures.
2. Again in the case of digitally signed copies of RoR, Maharashtra and Rajasthan figures in both sets of data match perfectly with some variation in the case of HP.
3. In the digitisation of cadastral maps, the two sets of data do not match in the case of any of the states. However, the variation is nominal in the case of Maharashtra. HP shows almost 100% digitisation on the DoLR website against less than 18% in the IA. However, the IA does mention that this work is proceeding apace in most districts and it is possible that significant progress has been achieved. Similarly, in the case of Rajasthan, a start has been made in digitisation of CMs as per the DoLR website against the nil achievement at the time of the IA.
4. The position on integration CMs and RoRs, is again more or less consistent as reflected in both the IA and the DoLR website for the case of both Maharashtra and Rajasthan. In HP's case, the DoLR website shows almost double the achievement brought out in the IA. This is also possible given that this work has been progressing quite fast since the IA was carried out.

5. On circle rates being available on the web, the position in the IA and DoLR website is consistent for HP and Maharashtra. In Rajasthan's case, the DoLR website data is only a third of the 100% availability reflected in the IA.
6. On the computerisations of mutations, no information was obtained during the IA. As mentioned in the earlier section, it is difficult to understand the value addition in computerisation of mutations which is not captured by the integration of the RoR and registration data bases. So while Maharashtra, reports almost 99% of computerisation of mutations, the integration of the two data bases is actually reported at a slightly lower level. The mutation computerisation is an automated notice of a registration event to the revenue officials responsible for maintaining the record and not a note in the RoR itself.
7. The information on web based computerisation of the registration process is consistent between the IA and the DoLR website at the overall level in that it reflects the advances made in Maharashtra in this sphere and the relative lack of progress in HP. The IA brings out some inconsistency in the figures for the total number of SROs and those linked to the web based system in Maharashtra. More important, the IA brings out that attempting to capture computerisation of registration as a single step process cannot reflect the position on a multi stage process like registration. The IA brought out the position on computerization of the various stages of the registration process in the three states as shown in the table below.

TABLE 5: DIGITISATION OF THE REGISTRATION PROCESS— COMPARATIVE POSITION OF THE STATES

Steps	Undertaken By Client, Registration Office or Both	Himachal Pradesh	Maharashtra	Rajasthan
1. Title Search	Client			
1a. Checking with RoR	Client	Online	Offline (mostly)	Offline
1b. Access to Legacy Registration Record	Client	Nil	46% SROs permit search from 1985 onwards and 47.3% from 2002 onwards	Nil (rapidly being made available for last 2 years)
2. Circle Rate (real time availability of notified rate)	Both	Available	Available	Available
3. Payment of Duty	Client	e-stamp	On line system	e-stamp/on line system introduced
4. Document Preparation and Application	Client	Offline	Partially web based	Off line (now data entry partially web based)
5. Verification of Duty and Documents	Office	Offline	<i>Duty verification</i> - Online Documents verification – partially web-based	Off line
6. Attestation of Registration	Office	Offline	Partially web-based	Off line
7. Delivery of Document	Office	Offline	Online system	Off line
8. Updating of record	Office			
8a Notice for Updating is noted in the land/property record:	Office	In all cases where RoR is computerised (97.6%)	2.8% of SROs	Offline
8b Actual Record Updation occurs in real time:	Office	No	No	No

**Source:** DI-LRMP Pilot Impact Assessment study, NCAER, 2017

Overall, comparison of the position brought out in the IA and that reflected on the DoLR website, shows a consistency in many important details. It does however, bring out the need to ensure states pay greater attention to accurate reporting on most fronts. More important, it brings out the need to ensure that the information on computerisation of registration is collected for a multi stage process.

### Financial Progress

While the figures in Table 2 (shown earlier) relate to aggregate financial figures from 2008-09 till the latest year, 2017-18, the IA has information for the three states only till the latest time period at the time of the study (Table 6). Still, the national level picture of underutilization is mirrored by the data of the three states. In effect, the earlier observations on issues in the design of the DI-LRMP can be safely reiterated.

**TABLE 6: FINANCIAL PROGRESS OF DI-LRMP FOR PILOT STATES  
(2008-09 TO 2015-16) (RS LAKH)**

State*	Funds Sanctioned by the Centre (in Lakh Rs.)	Funds Released by the Centre (in Lakh Rs.)	Expenditure Incurred (in Lakh Rs.)	Fund Utilisation (expressed as a %age of the funds released)
Himachal Pradesh	6907	4330	303	7.00
Maharashtra	8420	6536.16	1673.67	25.61
Rajasthan*	752.630	550.450	263.650	47.90

**Source:** Department of Land Resources, Ministry of Rural Development, Government of India.

**Note:** \*Details in the case of Himachal Pradesh and Maharashtra pertain to the period 2008–09 to 2015–16, while for Rajasthan, the data is for the time period 2012–13 to 2014–15.

In Table 7 below, the latest financial details on the DI-LRMP website for the three IA states have been exhibited. A comparison with the data in Table 6 above brings out an anomalous result. The latest figures of expenditure for Rajasthan are nil and almost negligible for Maharashtra! Clearly, the systems for reporting and monitoring data uploaded on the DoLR website need improvement.

**TABLE 7: FINANCIAL PROGRESS OF DI-LRMP FOR PILOT STATES  
(2008-09 TO 2017-18) (RS LAKH)**

	Funds Sanctioned by Centre	Funds Released by Centre	Expenditure (as Entered by State/UT)	Fund Utilization (expressed as a %age of funds released)
HP	6927.818	4344.259	705.96	16.25
Maharashtra	10432.07	6535.435	58.472	0.89
Rajasthan	19319.07	4137.21	0.00	0.00

**Source:** Department of Land Resources, Ministry of Rural Development, Government of India.



## Comparison between land records and on ground situation

One of the key objectives of the IA was to comment on the extent to which computerisation of the land records is facilitating a more comprehensive and accurate land record updated in real time. For this purpose, an exercise was undertaken to compare the position in the land records with the actual on ground situation with respect to sample plots. The comparative analysis was undertaken in two tehsils (selected on the basis of a pre decided criteria) in all the three states and involved a survey of 50 land parcels in each of the two tehsils. The consistency or variation between the record and the on ground situation was examined with respect to five features that characterize every property— Ownership, Possession, Land use, Extent or Land Area and Encumbrances. The three institutions varied in the methodology used to select the sample plots so the results were not comparable across the states. However, the results still make it possible to comment on the nature of the variation and the gaps that need to be addressed.

1. In the case of ownership, it is clear that the existing emphasis on computerisation and integration of the three areas of textual record, spatial record and registration process needs to be pursued with greater vigour if records are to be updated in real time after registration of transactions. Furthermore, even after this is completed, it will leave an important gap. Succession as an event that necessitates change in the record is still not covered as a sphere where appropriate data base linkages are required to bring about the possibility of real time updating of the record.
2. In the case of possession, the gaps relate to entry in the record of tenants or others using land and property. Addressing this gap, will require statutory or procedural changes in every state to facilitate appropriate entries to be made and data bases to be linked. In Rajasthan, for example, the land record does not have a column to record possession at all. In HP, the tenancy reform law creates perverse incentives militating against recording tenants or sharecroppers.
3. In all three states, the findings suggested a considerable gap between the record and the on ground situation in the case of land use. Updating this in real time, requires bot changes in procedure and use of appropriate data bases.
4. In all three states, it was noted that the area given in the RoR and the on ground measurement showed a high degree of variation. While this brought out the fact that spatial records may not be very accurate, it also flagged the point that resurvey could result in large scale disputes unless appropriate protocols were evolved in advance to deal with the variations. An important preliminary step could perhaps be to reconcile the existing textual and spatial record in order to reduce the ambit of differences. This requires an emphasis on digitizing the spatial record in all states.
5. In the case of encumbrances pertaining to a property (in terms of restrictions or conditions affecting the property), it was seen that only mortgages are entered in the record and even in this case, in most states real time updating of the record would require certain statutory and procedural improvement to ensure that data base linkages like registration can be used. Important encumbrances that cause dispute and conflict in relation to land include on-going litigation or land acquisition proceedings as well as land use or customary restrictions attached to land. In most states, there are no existing instructions or mechanisms for recording many of these encumbrances in the RoRs. Appropriate data base linkages can mitigate this gap. Innovations in this regard need to be brought under the ambit of the DI-LRMP.

## Possible Steps to Hasten Achieving DI-LRMP Objectives

The objective of this chapter was to bring out the level of computerisation of the land and associated records and by looking at the findings of an impact assessment of the DI-LRMP, to reflect on the extent to which the objective of a more accurate, comprehensive record updated in real time is being achieved. Finally, it was to include suggestions on ways in which the shortcomings pointed out, could be addressed. The preceding sections of this chapter have highlighted the following areas where action is required:

1. Progress on computerisation of land records, under the DI-LRMP and its predecessor programmes, has been patchy. While considerable progress has been reported with respect to computerisation of textual records, other components lag behind. Even in the case of textual records, the facility of making available digitally signed copies of the record on the web is still very limited.
2. The utilization of funds under DI-LRMP has been extremely poor and does not appear to be linked to the reported achievements in computerizing various components of the record.
3. Apart from the need to speed up the existing work on computerizing various components of the land record and registration process and integrating these data bases, there is a need to bring about appropriate legal and procedural changes to enable linkage with other data bases that can aid in the process of creating a more accurate, comprehensive record updated in real time.
4. The DI-LRMP MIS largely reflects the actual achievement of the states with respect to the outputs sought to be achieved by the programme. However, some improvements would enable capturing better the achievements in digitization of land and associated records such as securing information on the various steps involved in registration. Some changes may also be necessary to secure information on the extent to which the RoR reflects information from other associated data bases that can improve the record. It also needs better reporting by the states and monitoring at the central level.

The IA study included bringing the findings of the study to the notice of relevant stakeholders, in order to elicit suggestions on action that can enhance the prospects of a more accurate and comprehensive record updated in real time and ensure the DI-LRMP is more focused in rendering assistance to meet this objective. To this end, these findings were discussed with revenue department officials in focus group discussions (FGDs) and state level consultations. Based on the recommendations that emerged in these consultations and the analysis of the shortcomings brought out in the IA, the following suggestions are put forward as possible ways to hasten achievement of the DI-LRMP objective of securing a more accurate, comprehensive record updated in real time.

1. At the state level, the recommendations included better trained staff and monitoring arrangements. They pointed out the need to expedite on going computerization efforts in relation to the textual record, the spatial record, the registration process and integration of these data bases. They also highlighted the need to make the necessary statutory and procedural changes to enhance the possibility of real time updating of RoRs through 'instant mutation' on the occurrence of registration. Most significant were the suggestions on additional data bases to be linked to address the gaps that will remain even after the process of computerization as envisaged currently is completed. These include links to the birth and death register to take care of the bulk of succession related events as well as links to data bases related to various encumbrances like court cases, land acquisition and land use restrictions introduced by development plans. Use of satellite maps and creating linkages in this regard, can help improve the position on recording land use change in real time. Encouraging voluntary partition of property and creating appropriate formats for recording built up property and recording possession on various segments of such property can also aid in the record better reflecting the actual possession on the ground.

2. Suggestions to improve the design of the DI-LRMP so that it has a better link to state efforts and the outcomes sought to be achieved, focused on increased flexibility for the states in making expenditure decisions. They also sought a component that rewards performance by states with regard to creation of a more comprehensive, accurate and updated record instead of only funding inputs.
3. On the data front, the IA has suggested that the states may be asked to report annually on the following details in order to capture all the requisite efforts on computerization and linking relevant data bases that are expected from the states. Most of this information is already received on the DI-LRMP MIS but some additions will be necessary.
  - i. Number of tehsils/talukas or other administrative division for property record purposes and revenue villages/estates in the entire state.
  - ii. Names of tehsils/talukas reported to have computerised/digitised the RoRs/CMs (separately) and the number of revenue villages/RoRs in each of these tehsils/talukas.
  - iii. Names of tehsils/talukas where copies of the RoRs/CMs (separately) in a legally useable form can be accessed from the web and the number of revenue villages/RoRs in each of these tehsils/talukas.
  - iv. Names of tehsils/talukas where registration of property-related transactions is automatically done in the computerised RoRs and the number of revenue villages/ RoRs in each of these tehsils/talukas.
  - v. Names of tehsils/talukas where registration of property-related transactions result in instant mutation in the computerised RoRs and the number of revenue villages/RoRs in each of these tehsils/talukas.
  - vi. Names of tehsils/talukas where encumbrances in the form of mortgages can be immediately noted in the computerised RoRs and number of revenue villages/RoRs in each of these tehsils/talukas.
  - vii. Names of tehsils/talukas where encumbrances in the form of revenue court cases can be immediately noted in the computerised RoRs and the number of revenue villages/RoRs in each of these tehsils/talukas.
  - viii. Names of tehsils/talukas where encumbrances in the form of civil court cases can be immediately noted in the computerised RoRs and the number of revenue villages/RoRs in each of these tehsils/talukas.
  - ix. Names of tehsils/talukas where encumbrances in the form of land acquisition proceedings can be immediately noted in the computerised RoRs and number of revenue villages/RoRs in each of these tehsils/talukas.
  - x. Names of tehsils/talukas where encumbrances in the form of statutory land use restrictions can be immediately noted in the computerised RoRs and the number of revenue villages/RoRs in each of these tehsils/talukas.
  - xi. Number of SROs in the state.
  - xii. Number of SROs in the state where registration of a sale deed requires and/or has a facility for online:
    - a. entry of data with regard to the proposed registration;
    - b. availability of updated circle rates;
    - c. payment of stamp duty/registration fee;
    - d. verification of payment/scrutiny of requisite details and completion of registration process with digital signature; and
    - e. immediate delivery of the registered document.

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## Annexure

Table A1: State wise Status of Land Record Digitization (year 2018)

	0-5% digitization	6-50% digitization	51-90% digitization	91-100% digitization	No information available
RoR computerization (percentage of total REs /villages)	Arunachal Pradesh, Meghalaya, Mizoram, Nagaland, NCT Of Delhi	Jharkhand, Kerala, Chandigarh, Odisha, Manipur, Jammu & Kashmir	Puducherry, Chattisgarh, Uttarakhand, Tamil Nadu, Daman & Diu, Bihar, Goa, Assam	Dadra & Nagar Haveli, Himachal Pradesh, Lakshadweep, Karnataka, Andaman & Nicobar, Telangana, Tripura, Madhya Pradesh, Maharashtra, West Bengal, Andhra Pradesh, Rajasthan, Gujarat, Uttar Pradesh, Punjab, Sikkim, Haryana	
Mutation computerized (percentage of total villages)	Bihar, Himachal Pradesh, Odisha, Arunachal Pradesh, Jammu & Kashmir, Karnataka, Lakshadweep, Meghalaya, Mizoram, Nagaland, NCT Of Delhi	Kerala, Uttarakhand, Jharkhand, Madhya Pradesh, Punjab, Manipur, Rajasthan, Chandigarh	Goa, Chattisgarh, Gujarat, Tamilnadu, Uttar Pradesh, Sikkim, Assam	Dadra & Nagar Haveli, Andaman & Nicobar, Telangana, Tripura, Maharastra, Puducherry, Andhra Pradesh, West Bengal, Haryana, Daman & Diu,	
Digitally signed RoR (percentage of total villages)	Jharkhand, Chattisgarh, Haryana, Punjab, Bihar, Uttarakhand, Maharastra, Arunachal Pradesh, Assam, Chandigarh, Daman & Diu, Goa, Jammu & Kashmir, Karnataka, Kerala, Lakshadweep, Manipur, Meghalaya, Mizoram, NCT Of Delhi, Odisha, Sikkim, Nagaland	West Bengal, Madhya Pradesh, Gujarat, Rajasthan	Himachal Pradesh, Uttar Pradesh, Tamil Nadu, Tripura	Dadra & Nagar Haveli, Andaman & Nicobar, Telangana, Andhra Pradesh, Puducherry	
Digitized CMs (percentage of total CMs)	Maharastra, Daman & Diu,	Uttarakhand, Uttar Pradesh, Rajasthan, Andaman & Nicobar, Gujarat	Telangana, Jharkhand, Andhra Pradesh	Dadra & Nagar Haveli, Goa, Odisha, Puducherry, Sikkim, Tripura, Assam, Himachal Pradesh, Bihar, Madhya Pradesh, Kerala, Chattisgarh, Tamilnadu, Haryana, Punjab, West Benga	Arunachal Pradesh, Chandigarh, Jammu & Kashmir, Karnataka, Lakshadweep, Manipur, Meghalaya, Mizoram,

					Nagaland, NCT Of Delhi
Number of REs in which Cadastral Maps linked to RoR (percentage of total REs)	Dadra & Nagar Haveli, Andhra Pradesh, Jharkhand, Telangana, Goa, Rajasthan, Arunachal Pradesh, Bihar, Chandigarh, Daman & Diu, Haryana, Jammu & Kashmir, Karnataka, Kerala, Lakshadweep, Maharashtra, Manipur, Meghalaya, Mizoram, Nagaland, NCT Of Delhi, Puducherry, Punjab, Uttarakhand	Assam, Andaman & Nicobar, Himachal Pradesh, Gujarat, Sikkim, Uttar Pradesh, Tamil Nadu	Chattisgarh, Madhya Pradesh, West Bengal	Odisha, Tripura	
Web based computerization of registration process (percentage of total SROs)	Tamilnadu, Chattisgarh, Arunachal Pradesh, Assam, Chandigarh, Dadra & Nagar Haveli, Goa, Himachal Pradesh, Jammu & Kashmir, Karnataka, Lakshadweep, Manipur, Mizoram, Nagaland, NCT Of Delhi, Odisha, Punjab, Uttar Pradesh	Daman & Diu, Sikkim, Andaman & Nicobar, Meghalaya, Haryana	Uttarakhand, Bihar	Andhra Pradesh, Gujarat, Jharkhand, Kerala, Madhya Pradesh, Puducherry, Telangana, Tripura, West Bengal, Maharashtra, Rajasthan	
Circle rate online (percentage of total SROs)	Andaman & Nicobar, Arunachal Pradesh, Assam, Chandigarh, Chattisgarh, Goa, Jammu & Kashmir, Karnataka, Lakshadweep, Manipur, Meghalaya, Nagaland, Odisha, Sikkim	Daman & Diu, Mizoram, Punjab, Tripura, Uttar Pradesh	, Uttarakhand, Haryana, Tamil Nadu	Andhra Pradesh, Dadra & Nagar Haveli, Gujarat, Himachal Pradesh, Jharkhand, Kerala, Madhya Pradesh, Nct Of Delhi, Puducherry, Telangana, West Bengal, Maharashtra, Rajasthan, Bihar	
Integration of registration process with RoRs (percentage of total SROs)	, Tamil Nadu, Uttar Pradesh, Arunachal Pradesh, Assam, Chandigarh, Chattisgarh, Daman & Diu, Goa, Jammu & Kashmir, Karnataka, Lakshadweep, Madhya Pradesh, Manipur, Meghalaya, Mizoram, Nagaland, NCT Of Delhi, Odisha, Puducherry, Uttarakhand	Andaman & Nicobar, Punjab, Bihar	West Bengal, Haryana, Sikkim	Andhra Pradesh, Dadra & Nagar Haveli, Gujarat, Himachal Pradesh, Jharkhand, Telangana, Tripura, Kerala, Maharashtra, Rajasthan	

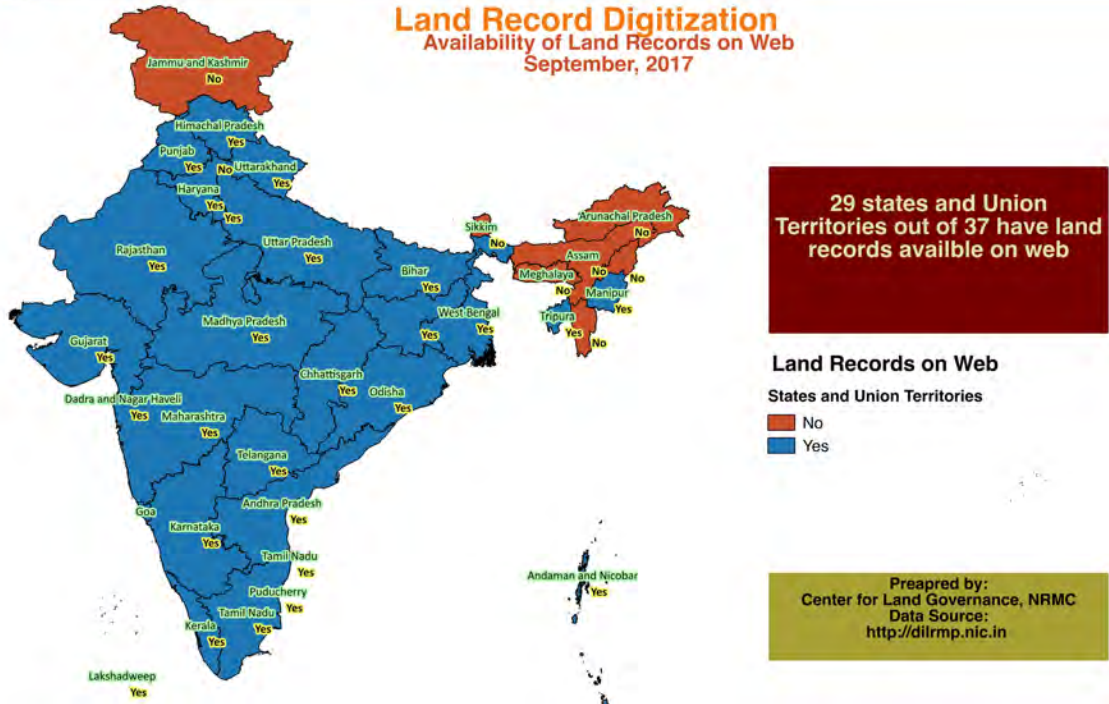
**Source:** Department of Land Resources, Ministry of Rural Development, Government of India.

## Status of Land Record Digitisation under DURLMP

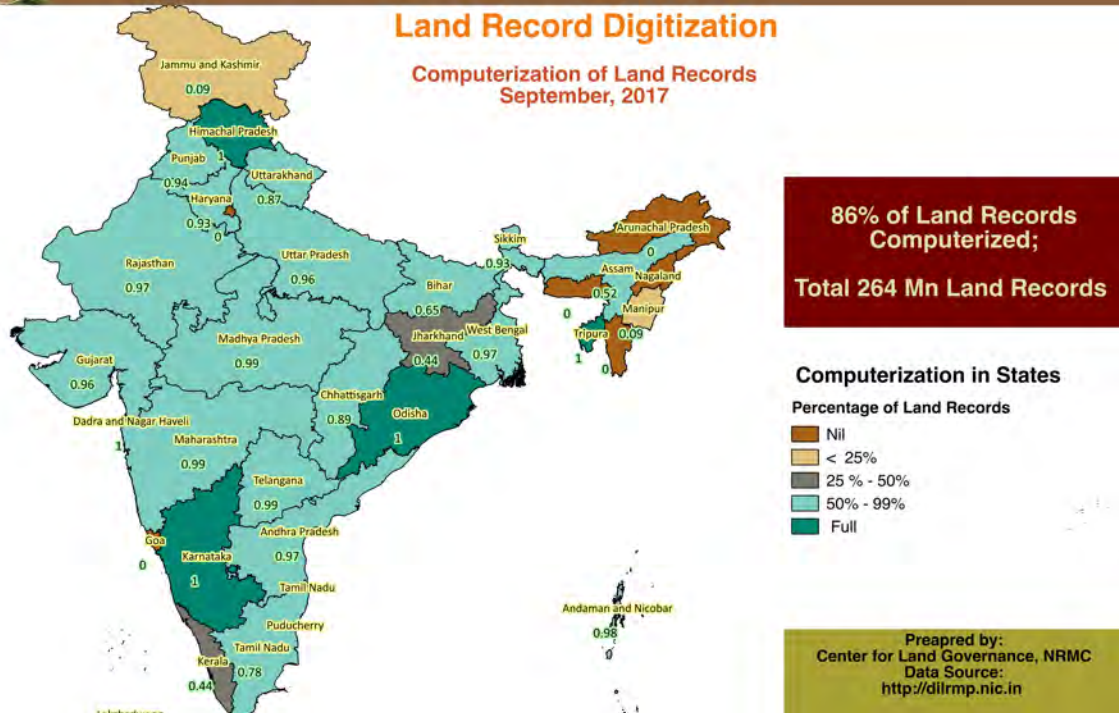
Center for Land Governance, NRMCC

*As on sept 2017 (Only Maps)*

## State of Land Report India



## State of Land Report India





# State of Land Report India

## Land Record Digitization

Digitization of Cadastral Maps  
September, 2017



**46% of Maps digitized;**  
**Total 10 Mn Cadastral Maps**  
**in 0.65 Mn Villages**

### Map Digitization in States

Percentage of Maps

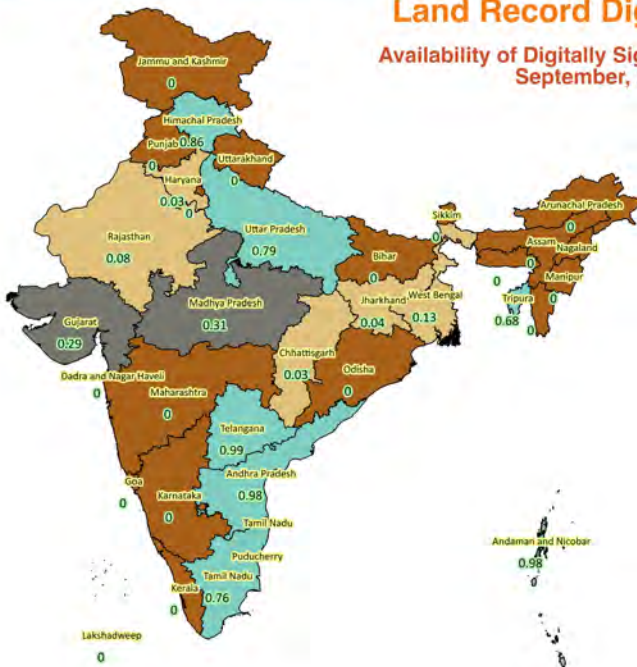
- Nil
- < 25%
- 25% - 50%
- 50% - 99%
- Full

Prepared by:  
Center for Land Governance, NRMCC  
Data Source:  
<http://dilrmp.nic.in>

# State of Land Report India

## Land Record Digitization

Availability of Digitally Signed Land Record  
September, 2017



**In 27% of Villages Digitally**  
**Signed RoR available for**  
**download**  
**India has 0.65 million villages**

### Digitally Signed Land Record

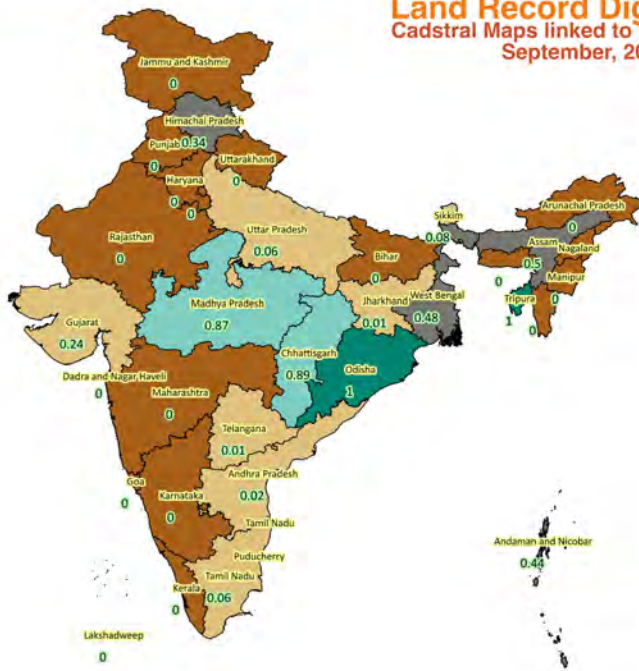
Availability in % Villages

- Nil
- < 25%
- 25% - 50%
- 50% - 99%
- Full

Prepared by:  
Center for Land Governance, NRMCC  
Data Source:  
<http://dilrmp.nic.in>

## State of Land Report India

### Land Record Digitization Cadstral Maps linked to Land Records September, 2017



In 26% of Villages Cadstral Maps linked to Record of Rights (RoR)  
India has 0.65 million villages

#### Cadstral Maps linked to RoR

##### Linked % Villages

- Nil
- < 25%
- 25% - 50%
- 50% - 99%
- Full

Prepared by:  
Center for Land Governance, NRMCC  
Data Source:  
<http://dilmp.nic.in>

## State of Land Report India

### Land Record Digitization Recording of Gender in Land Records September, 2017



Six states and Union Territories record gender (M/F) and two States (M/F/Transgender) in Land Records out of 37

#### Recording of Gender in Land Records

##### States and Union Territories

- Male
- Male Female
- Male Female Transgender
- na
- None
- None

Prepared by:  
Center for Land Governance, NRMCC  
Data Source:  
<http://dilmp.nic.in>

# State of Land Report India

## Land Record Digitization

Aadhaar Seeding of RoR  
September, 2017



**4% of Land Records linked to Unique ID**  
**Only two states have > 90% linkage**

### Aadhaar linkage in States

Percentage Aadhaar seeded

- Nil
- < 25%
- 25% - 50%
- 50% - 99%
- Full

Prepared by:  
Center for Land Governance, NRMCC  
Data Source:  
<http://dilrmp.nic.in>

## Chapter 6: Land Litigations

Daksh

Shruthi Naik

### Introduction

Land and property form an integral part of society and play a pivotal role in one's life, whether as part of a business, a means of earning, or a place of shelter. On account of its importance in society, it is imperative to ensure equitable access to land, and for that purpose, the efficient administration of a system of land governance. The benefits of good governance in land administration is manifold - protection of tenure rights, poverty reduction, food security, management of natural resources, and conflict prevention.<sup>60</sup> The focus of this paper is to study one of the problems that may arise out of ineffective land governance - land disputes. This paper seeks to highlight the state of land and property disputes in India through an empirical study of data regarding the nature of land under dispute, the types of land disputes, and the amount of time taken to resolve these disputes in the judicial system.

### Nature of Land and Property Disputes

In 2015 DAKSH conducted an Access to Justice Survey, the first of its kind in India, to understand the experiences and perceptions of litigants across the subordinate courts of India. A look at the nature of civil cases showed that land and property matters dominate the field of civil litigation, with 66.2 per cent of the civil litigants being engaged in land and property disputes.<sup>61</sup> As of 13 February 2018, there are about 80 lakh civil cases pending across the subordinate courts in India,<sup>62</sup> if 66.2 per cent of these are related to land/property, this means that about 53 lakh pending cases in India concern land and property.

In order to understand how many people in India have justiciable disputes, and their experiences with dispute resolution, DAKSH conducted the Access to Justice Survey 2017 (ATJ 2017).<sup>63</sup> From the ATJ 2017 it was found that approximately 7 per cent of the population have justiciable disputes, with female respondents constituting only 20 per cent of those with disputes. Further, the survey found that 29.3 per cent of respondents with a dispute, had a dispute concerning land or property. Among those with a land or property dispute, we found that 85 per cent of them were male respondents, and only 15 per cent of those with a land dispute were female.

<sup>60</sup> Vale Columbia Center on Sustainable International Investment and the SDN Thematic Group. 2014. 'Why good governance of land and tenure security need to be part of the Sustainable Development Goal Framework' available at <http://unsdsn.org/wp-content/uploads/2014/02/Good-governance-of-land-in-SDGs-Note.pdf> (accessed on 13 February 2018).

<sup>61</sup> Harish Narasappa, Kavya Murthy, et. al. 2016. 'Access to Justice Survey: Introduction, Methodology, and Findings', in Harish Narasappa and Shruti Vidyasagar (eds.), *State of the Indian Judiciary: A Report by DAKSH*, pp. 137, 143. Bengaluru: DAKSH and EBC.

<sup>62</sup> National Judicial Data Grid available at [http://njdg.ecourts.gov.in/njdg\\_public/main.php](http://njdg.ecourts.gov.in/njdg_public/main.php) (accessed on 10 January 2018).

<sup>63</sup> Padmini Baruah, Shruthi Naik, et. al. 2017. 'Paths to Justice: Surveying Judicial and Non-judicial Dispute Resolution in India', in Shruti Vidyasagar, Harish Narasappa et. al. (eds.), *Approaches to Justice in India: A Report by DAKSH*, p. 9-38. Bengaluru: DAKSH and EBC.

The ATJ 2017 also sought to understand the nature of land under dispute:

**Figure 1.** Nature of land in dispute

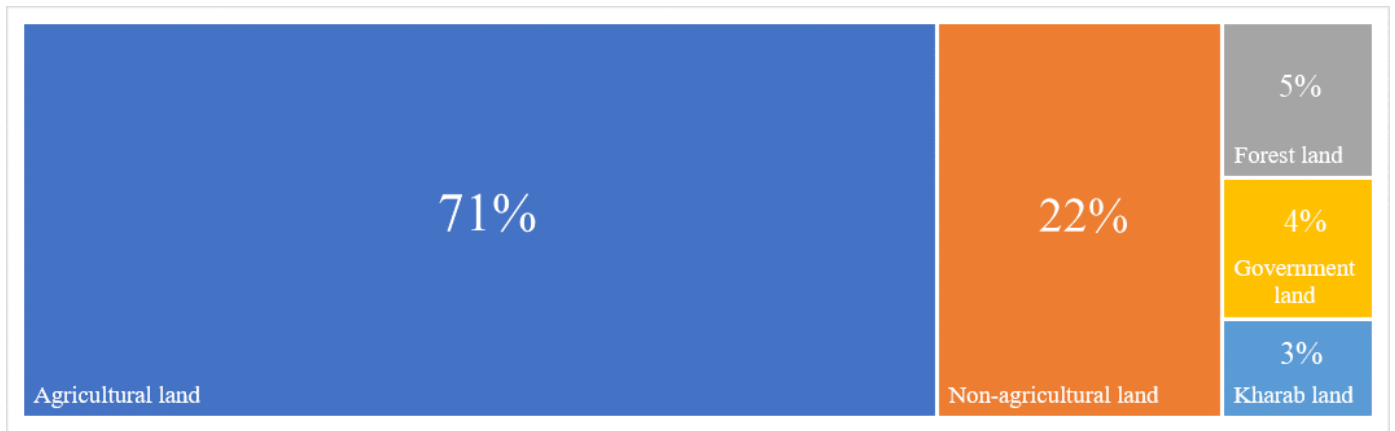


Figure 1 above shows that a large majority of land disputes (71 per cent) are regarding agricultural land, and non-agricultural land accounts for the second highest share (22 per cent) of land disputes. In this regard, it is interesting to note the annual income of those with agricultural and non-agricultural land disputes:

**Figure 2.** Income of persons with disputes concerning agricultural and non-agricultural land

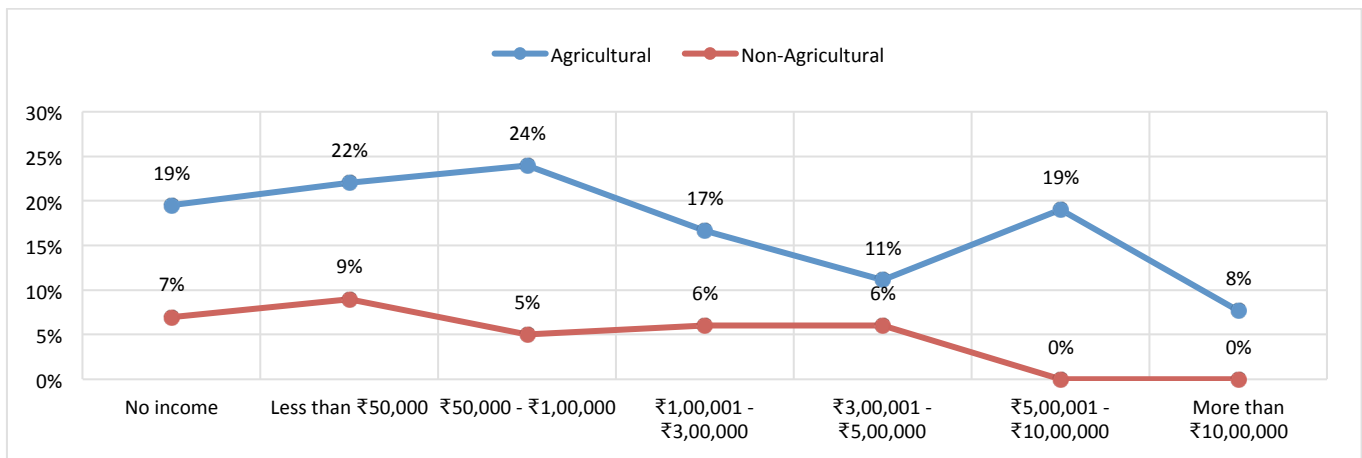
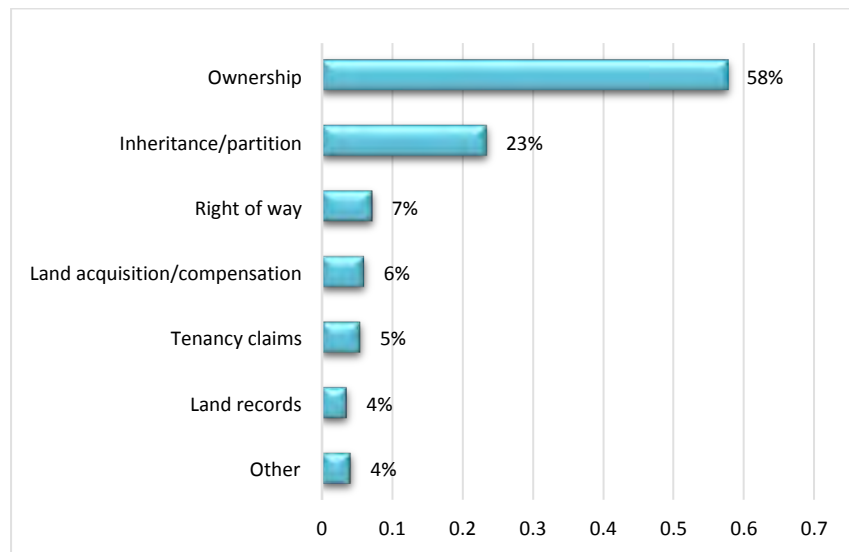


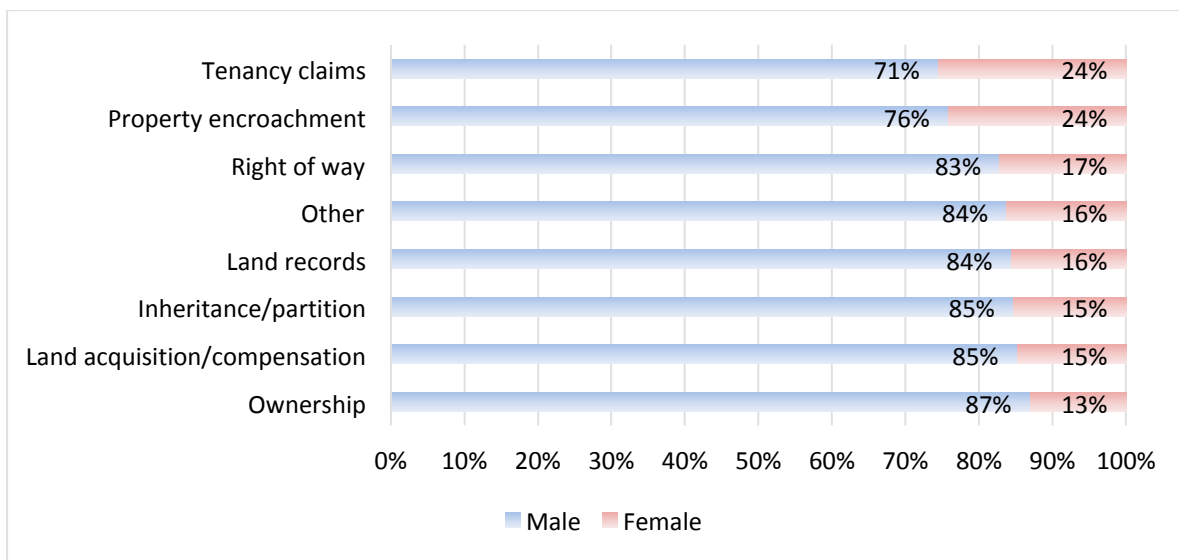
Figure 2 shows that the highest number of survey respondents (24 per cent) who had a dispute regarding agricultural land, had an annual income of ₹50,000 to ₹1,00,000. Further, it can be seen that all respondents with land disputes, with an annual income of more than ₹5,00,000, only had disputes concerning agricultural land. The ATJ 2017 also sought to understand the nature of the land and property disputes, and found as follows:

**Figure 3.** Nature of land disputes



From Figure 3 it can be seen that a majority of the respondents (58 per cent) stated that their land/property disputes were regarding ownership, and close to one-fourth of the respondents (23 per cent) stated that their disputes were about inheritance or partition of property. In this regard, it is interesting to note the nature of land/property disputes faced by male and female survey respondents:

**Figure 4.** Nature of land/property disputes based on gender



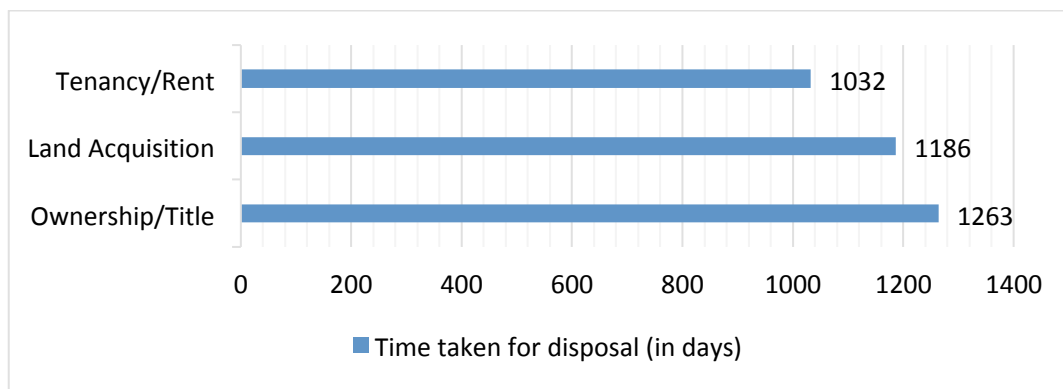
It can be seen from Figure 4 that women face more disputes regarding tenancy claims and property encroachment than any other kind of land dispute. Further, it is pertinent to note that while disputes regarding ownership constitute the highest number of land disputes (as seen in Figure 3), 87 per cent of those with a dispute regarding land or property ownership, are men; only 13 per cent of those with a dispute regarding land or property ownership were female.

## Nature of Land and Property Litigation

As the prominent kinds of land and property disputes are those concerning ownership, tenancy, and land acquisition, this paper seeks to understand the state of litigation in these areas. In order to select a sample of cases concerning ownership, tenancy and land acquisition, cases were identified as belonging to these categories based on their case types and the legislations under which the cases had been filed. Due to the paucity of information in the data from the High Courts regarding the legislations under which the cases are filed, the data analysis for this section is based on cases before the subordinate courts across India. Based on information available in the DAKSH database,<sup>64</sup> the following samples of disposed cases have been analysed: (a) ownership/title cases - 6,459 cases; (b) tenancy/rent cases - 9,578 cases; and (c) land acquisition - 13,944 cases.

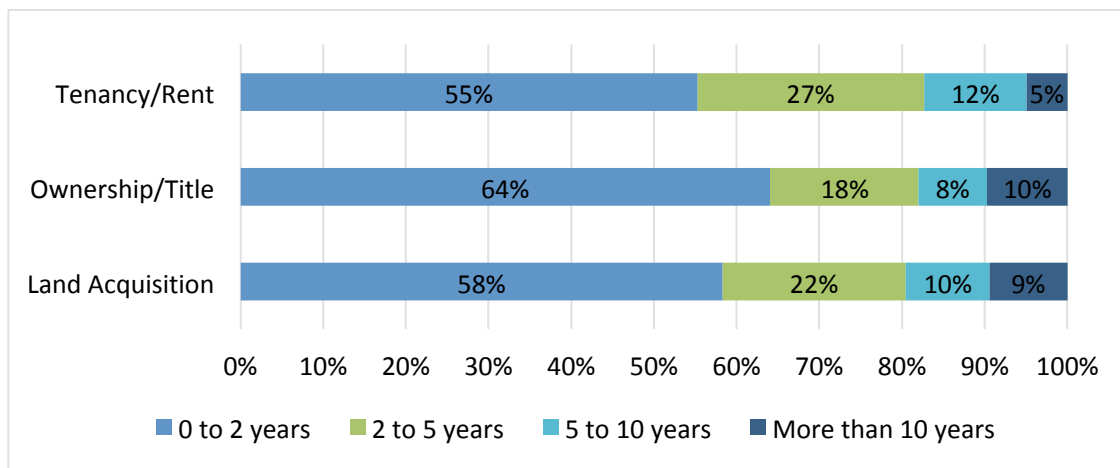
### Time Taken for Disposal

**Figure 5.** Time taken for disposal (in days)



As seen in Figure 5, all three areas of land litigation take over 1,000 days on average to be disposed in the subordinate courts. While tenancy matters take the least amount of time for disposal at 2.8 years on average, ownership disputes take 3.5 years on average to be disposed. A closer look at the distribution in terms of the number of years taken to dispose these cases can be seen below:

**Figure 6.** Time taken for disposal (in years)



<sup>64</sup> DAKSH database, available at <http://zynata.com:60099/base/src/index.html#/access/signin?portal=dakshlegal.in> (last accessed on 14 February 2018).

As seen in Figure 6, while more than 50 per cent of cases across the three categories take over two years to be disposed, the notable takeaway is that close to 20 per cent of the cases in all the categories have taken more than 5 years to be disposed. Further, 10 per cent of cases regarding ownership, and 9 per cent of land acquisition cases have taken more than 10 years to be disposed.

While Figures 5 and 6 shed some light on the time taken for the disposal of land/property litigation in the subordinate courts, it is imperative to remember that pendency (in days) tends to paint a different picture from the time takes for disposal of cases. A pattern that has been observed is that the average pendency (in days) of cases is higher than the average number of days taken to dispose such cases.<sup>65</sup> While a possible explanation for this phenomenon is that cases which have been pending for a long duration of time, continue to remain pending and thereby increase the overall average pendency while newly instituted cases get disposed faster, this phenomenon requires further research and understanding.

Further, one must bear in mind that the above figures represent the amount of time taken for cases to be disposed in the subordinate judiciary alone. There is a possibility that cases go on appeal before the High Court and the Supreme Court, thereby increasing the amount of time taken by these disputes to go through the judicial system.

## Conclusion

While the paper provides an insight into the state of land/property disputes and litigation, there is a need for further research to understand the causes of such disputes, the role that legal awareness can play (in specific, awareness of the rights of women to land), and the impact that good land governance could have in facilitating the prevention of disputes.

While there has been a lot of focused attention by researchers and policy analysts in the study of cases concerning land acquisition, there is a need to look at the landscape of land/property litigation as a whole in order to understand its effects. Some of the effects of litigation, such as the cost of litigation, and the time or effort spent in resolving the disputes, have often been spoke of, however one of the effects of land/property litigation that makes it a prime area of importance, is the loss of earning or productivity from the disputed land/property. With most of India's rural population depending on land as a means of livelihood, there is a need to ensure that adequate attention is given to the field of land litigation, and ensuring that barriers in access to land do not act as barriers to access a means of livelihood.

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<sup>65</sup> Arunav Kaul, Ahmed Pathan, et. al. 2017. 'Deconstructing Delay: Analyses of Data from High Courts and Subordinate Courts', in Shruti Vidyasagar, Harish Narasappa et. al. (eds.), *Approaches to Justice in India: A Report by DAKSH*, p. 102. Bengaluru: DAKSH and EBC.



## Chapter 7: Land conflicts and Stalled Investments in India

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## Chapter 7: Land conflicts and Stalled Investments in India

Bharati Institute of Public Policy,  
Indian School of Business, Hyderabad

Ashwini Chhatre, Ujjainee Sharma, Shreya Basu

### Introduction

India's ambitious development agenda involves facilitating investment for economic growth, infrastructure development, and social progress. Yet, thousands of investment projects have been stalled to date, raising red flags for the health of the country's financial regulatory systems, public sector banks, and investment community. The discussion on issues relating to stalled projects and the land related disputes is often mired in political controversies and presumptive and normative positions. This is due to the fact that there is little hard data that informs the debate. As a result the usual policy prescriptions are also uninformed by any hard analysis of the situation.

While official reasons given for stalled projects remain opaque, deep contestation leading to conflict on public (and private) lands must be better understood as a substantive risk to investments. The main source of data on stalled projects in India is the CapEx database from the Center for Monitoring Indian Economy (CMIE). This database "tracks the creation of new capacities from intentions through implementation and completion." This study takes the CapEx database as a starting point, and seeks to understand how important land-related issues are to the stalling of projects. This study was funded by Rights and Resources Initiative and was initiated in collaboration with Bharati Institute for Public Policy, Indian School of Business to examine the hard numbers related to stalled projects and land disputes.

Based on the larger CMIE database, there are currently two data sources which provide some evidence of the relationship between acquisitions of privately owned land and stalling of projects. The two sources are the analysis in the Economic Survey of India, 2014-15 as well as the data obtained from The Ministry of Finance on stalled projects through an RTI. The Economic Survey of India points out that in case of private sector; Land Acquisition does not count in the first three top reasons for stalling of projects.

A simple analysis of the MOF's answer to RTI query reveals the following:

- 66 out of 804 stalled projects attributed to land acquisition issues (Nayak, 2015 based on RTI data from MOF) – less than 10%
- 41 (7%) out of 630 stalled private sector projects attributed to Land Acquisition
- Land acquisition issue remains relatively important for public sector (14% of stalled projects)

This data tells us that land acquisition is not a significant factor for stalling of projects, especially in the private sector. Even in public sector the land acquisition seems to account to for problem with only 14% of projects.

Land acquisition, it seems, refers only to acquisition of privately owned lands and so the land acquisition data doesn't count projects stalled due to public lands related issues. However, preliminary analysis shows that the number and value of projects stalled due to public land related conflicts is very significant (in both numbers and value) but remains out of the frame. No database is available about such conflicts – the only indicative information can be gleaned from media reports. We have tried to use the media reports as proxy data supplemented by triangulation with CSOs and other sources of information. The preliminary analysis based on this information shows

the significance of such conflicts- and tells us provisionally that in terms of value of affected development and infrastructure projects, the public land conflict related projects are higher than those stalled due to private land acquisition.

A look at the cases of conflicts, especially in areas where public lands play a critical role in local livelihoods – one finds that major conflicts on land relate to public land; and even cases where private land is involved, public land diversion also plays a critical role. It can be also be seen that the opposition in such cases is driven by social groups who have little land and depend intensively on the common resources provided by public lands. An improved understanding of the actual causes of stalled projects will not only help investors, financial institutions and regulators make better decisions, but also inform public policies regarding communities’ property rights and provide a path to more inclusive development.

This chapter takes the CapEx database as a starting point, and seeks to understand how important land-related issues are to the stalling of projects.

## Methodology

For the purpose of our study, we considered the 48,806 projects as of October 2016. There are three categories listed in the database: a) Outstanding, b) Completed and c) Shelved/Stalled/Abandoned projects.

From the 48,806 projects, we looked at all the projects that had been stalled. We analyzed 80 stalled, high-investment projects spread across 10 states, and looked into the factors that led to the stalling of these projects. Finally from these 80 projects, we prepared detailed case studies (21) of all the projects embroiled in land conflicts.

**2.1 Data re-classification:** To better suit the purpose of our study, we re-classified and re-arranged the categories of “Project Status” and “Reasons for stalling” of CMIE-CapEx for our data analysis.

RRI-ISB categories	CMIE-CapEx categories
Announced	<ul style="list-style-type: none"> <li>• Announced</li> </ul>
Completed	<ul style="list-style-type: none"> <li>• Completed</li> </ul>
Stalled	<ul style="list-style-type: none"> <li>• Abandoned</li> <li>• Announced and Stalled</li> <li>• Implementation Stalled</li> <li>• Shelved</li> <li>• No Information</li> </ul>
Ongoing/Under Implementation	<ul style="list-style-type: none"> <li>• Under Implementation</li> </ul>

Table 1: Re-classified status of projects

RRI-ISB categories	CMIE-CapEx categories
Lack of official clearances (non-environmental and environmental)	<ul style="list-style-type: none"> <li>Lack of clearances (non-environmental)</li> <li>Lack of environmental clearances</li> </ul>
Land Acquisition Problems	<ul style="list-style-type: none"> <li>Land Acquisition Problems</li> </ul>
Reasons not available	<ul style="list-style-type: none"> <li>Not Available</li> <li>No reason (Blank entries)</li> </ul>
Other Reasons	<ul style="list-style-type: none"> <li>Fuel/Feedstock/Raw material supply problem</li> <li>Lack of funds</li> <li>Lack of promoter interest</li> <li>Unfavourable market conditions</li> <li>Natural Calamity</li> <li>Others</li> </ul>

Table 2: Re-classified categories of stalling of projects

### 3. Detailed Analysis of all the projects

#### 3.1 Spatial distribution of projects

The projects were divided into four categories- announced, completed, under implementation and stalled depending on what stage the project was at. Though there are various socio-economic, political, and environmental reasons that lead to the stalling of projects, there are no specific geographical clusters associated with them. This suggests that no particular region is any more or less likely to face delays or obstructions to projects.

#### 3.2 Characteristics of projects

Of more than 40,000 projects have, 14 percent or 5,780 were stalled, 53% were completed and 33% were listed as ongoing. The total investment tied in stalled projects was 42.6 lakh crores, which was 21% of all total investment in industrial projects. According to their size and cost, we see the highest percentage of stalling occurs in the high value projects. We divided projects based on their value and saw that 10% of projects had been stalled when the value was <100 crores. In the second of projects whose value was > 100 crore and < 1 lakh crore, the number of completed projects drastically reduced to only 37% while stalled projects increased to 17% and ongoing increased to 46%. In the third category, projects whose value was > 1 lakh crore), the percentage of stalled projects remained the same (17%) while completed and ongoing projects were 46% and 37% respectively.

#### 3.3 Stalled projects

The 5780 stalled projects are fairly evenly distributed throughout India. There are several districts that have 10 stalled projects or more. Many of these projects have an investment of 10,000 crores (Rs. 100 billion) or more and are spread across the states of Gujarat, Maharashtra, Odisha, Chhattisgarh, Karnataka, Telangana, Andhra Pradesh, Madhya Pradesh, Kerala, Rajasthan, Haryana, Punjab, and Uttarakhand.

**3.3.1 Reasons for stalling:** 40% (2348 projects) of total stalled projects (5780) were stalled for 'Other' reasons and 47% (2709) were stalled for 'Reasons not available', which refers to any reason that is not included in the CMIE-CapEx database or reasons for stalling that are unclear and have yet to be determined. 6.5% (378 projects) are stalled due to 'Land acquisition' problems (figure 1) and 6% (345 projects) due to 'Lack of clearances-environmental and non-environmental' categories. The total investment tied in these stalled projects or the total value at risk is 42.6 lakh crores. According to CapEx database, only 6.5% of all stalled projects are stalled because of land acquisition problems accounting for 16.2% of the total value at risk. The projects stalled for reasons 'not available' accounts for 24.6% of total investments, while projects stalled for 'Other' reasons accounts for 50% of all

investments. The projects stalled due to lack of environmental and non-environmental clearances account for 9.2% of the total value at risk. Once again, when we divide the stalled projects on the basis of different reasons, we do not see any concentration of these projects in any geographical region.

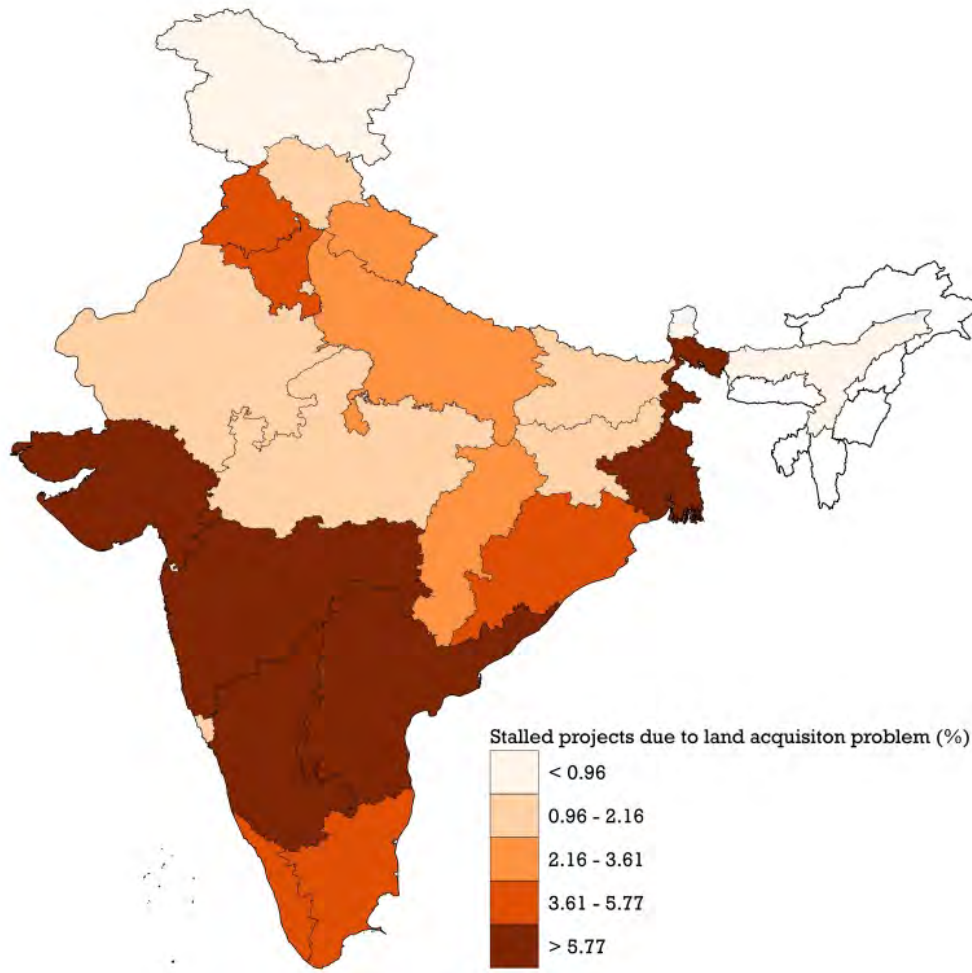


Figure 1: Distribution of projects stalled due to land acquisition

### 3.4 Further analysis

For further investigation, a sample of projects was selected to understand the complexity behind the stalling of the development projects based on the following criteria. After cleaning the data, a total of 80 projects that met the above criteria were shortlisted.

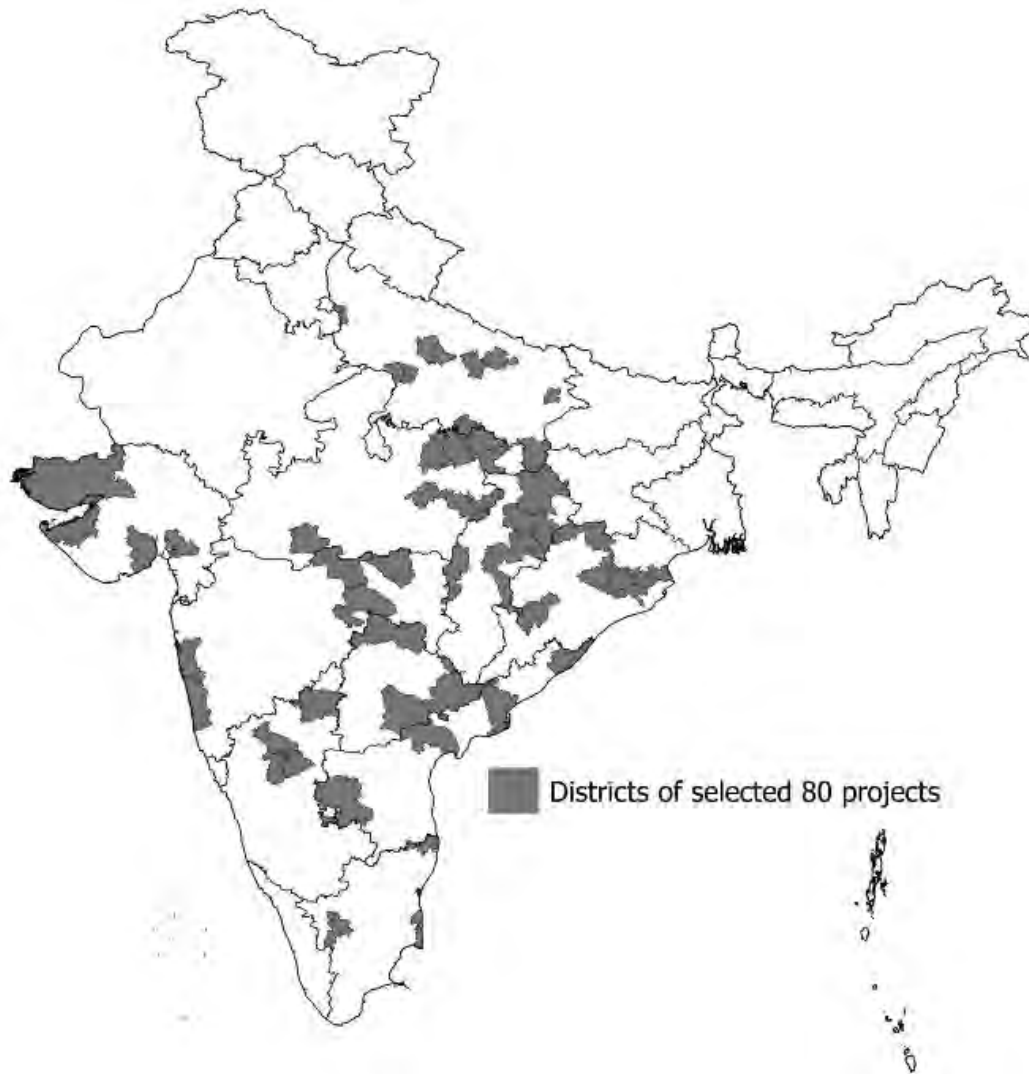


Figure 2: Distribution of 80 projects at the district level

3.4.1. Sector-wise number and investment

Power sector projects were found to have the highest frequency, followed by cement, steel, and mining sectors (Figure 3). In terms of investments, stalled power projects accounted for the highest value, about Rs.286.9 thousand crores, followed by the steel (97 thousand crores), mining (63.6 thousand crores), and cement (28.3 thousand crores) sectors (Figure 4).

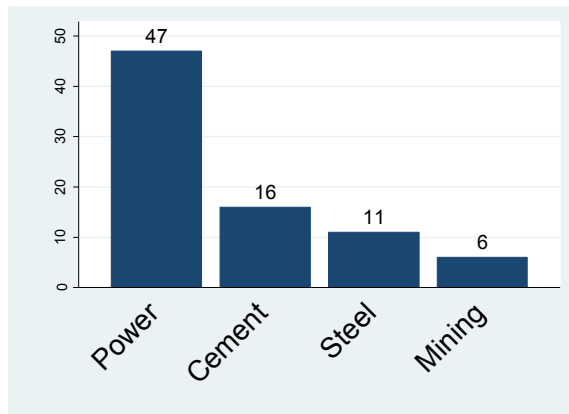


Figure 3: No. of projects across sectors

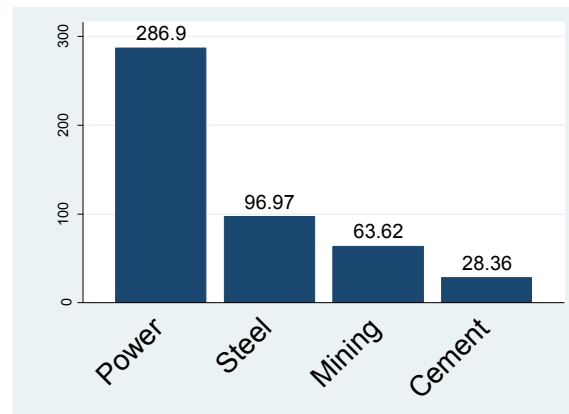


Figure 4: Investment of projects across sectors

The state of Odisha leads both in terms of number of projects and investment at risk followed by Karnataka, Maharashtra, Andhra Pradesh and Madhya Pradesh (Figure 5).

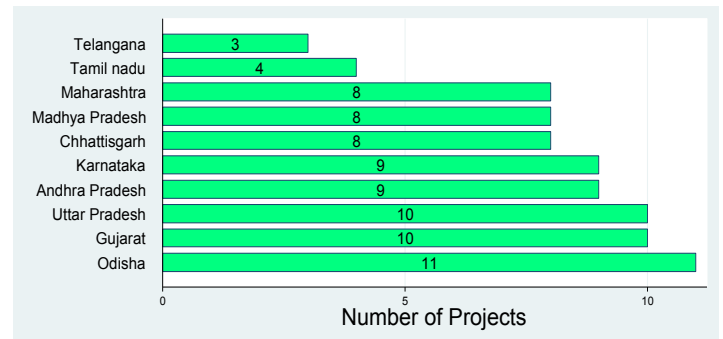
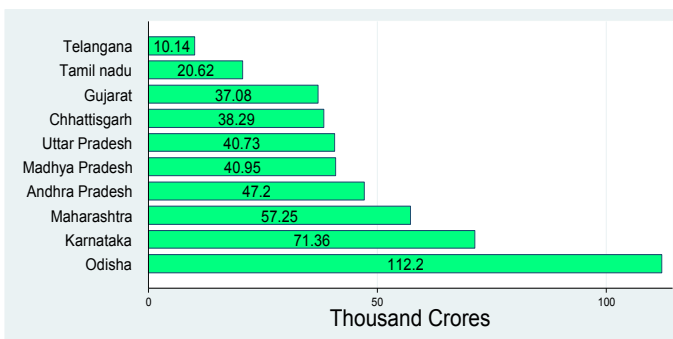
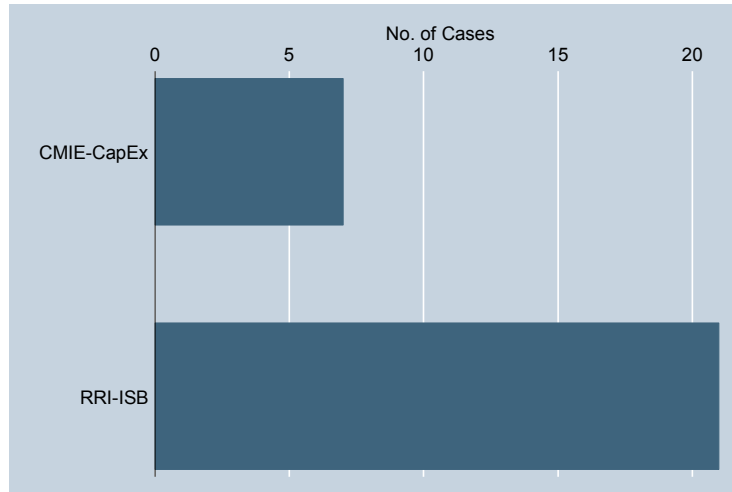


Figure 5: No. of projects and investments across different states

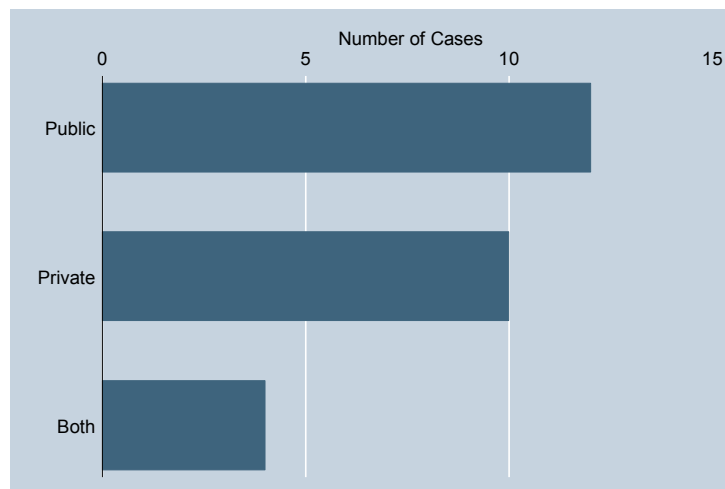
3.5 Land disputes and stalled projects

Of these 80 projects, only 7 (7.5%) are listed in the CapEx database as being stalled due to land acquisition problems. However, upon further investigation, it was found that 21 of these (26.25 percent) had significant land-related conflicts (Figure 6).



**Figure 6: Land dispute cases identified by CMIE-CapEx v/s RRI-ISB**

The study included a more detailed investigation of 21 projects involved in disputes related to the possession and acquiring of land. These disputes include both public and private land. Out of the 21 projects, 12 involved commons or public land, 10 involved only private lands, and four involved both private and common lands (Figure 7).

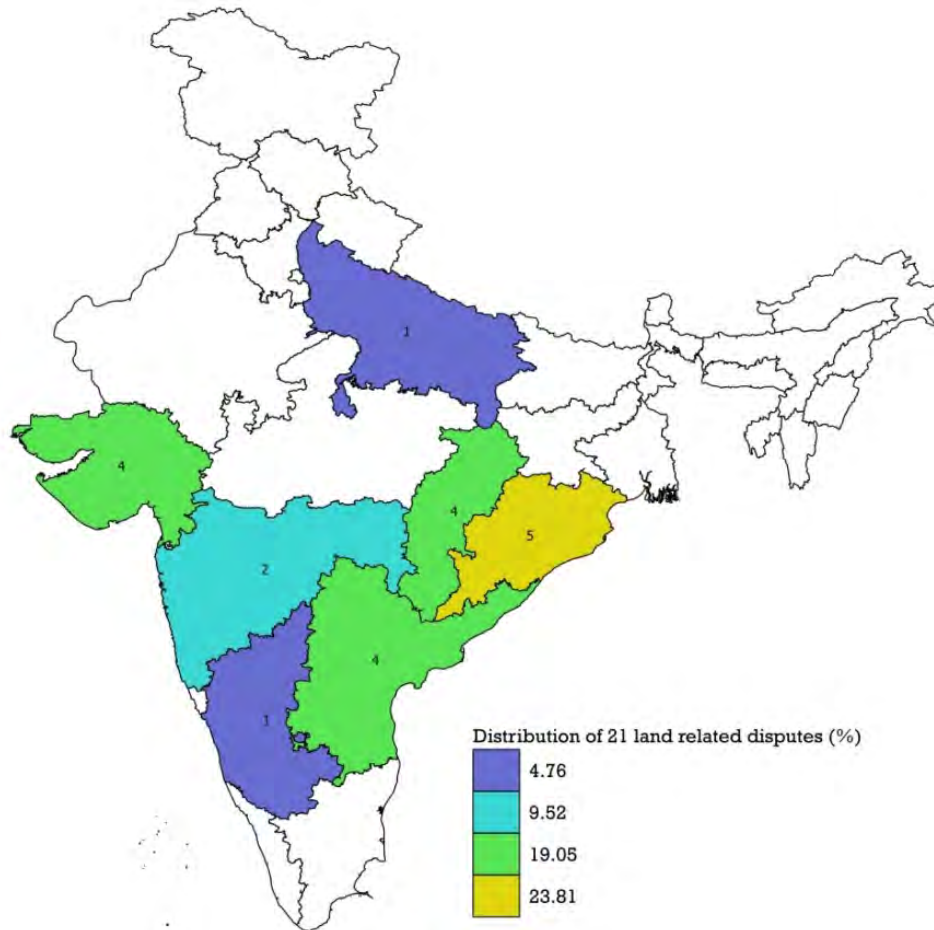


**Figure 7: Type of land categories involved in land disputes**

### 3.5.1 Detailed explanation of the 21 case studies

We explored the 21 cases further; which included the 7 cases that had been listed as stalled due to ‘Land Acquisition problems’ in the CapEx database. Additionally we also found 14 cases that had suffered delays due to problems in acquiring land or land conflicts but this was not reflected in the CMIE data. We went through internet databases, online newspapers, news reports, company websites and reports to compile these detailed case studies.





**Figure 8: State-wise distribution of 21 land dispute cases**

### 3.5.2 Major reasons for land disputes and conflicts

The major reasons for these land disputes and resistance can be classified as: 1. loss of commons; 2. dissatisfaction with compensation offered for the land; and 3. concern over the environmental impacts of the project. Figure 7 shows the distribution of these reasons.

3.5.2.1 The threat to commons emerged as a major reason for land disputes and conflicts. Communities are dependent on commons for farming, fishing, livestock rearing, salt manufacturing, and grazing. The loss of these lands or denial of access to them often leads to disputes. The 12 cases studied included protests against the loss of commons, forest land, and coastal waters. These protests played a major role in the stalling of projects.

For example, the fishing communities of Srikakulam district in Andhra Pradesh have raised objections to the implementation of five thermal power plants on the grounds that they will disrupt the marine ecology by increasing the sea temperature and destroy local fisheries. Of the selected projects, four were stalled following such protests in Srikakulam district (Bhadreshwar thermal power project, Sompeta thermal power project, Kakarapalli thermal power project, and Srikakulam thermal power project). In Ratnagiri district, Maharashtra, similar protests took place against Rajapur thermal power project and the project as stalled. Only one of these projects was listed as stalled due to land acquisition in CapEx; all others' reasons were attributed to a lack of environmental clearance, fuel/feedstock/raw material supply problems, and others.

3.5.2.2 **Dissatisfaction with compensation offered for valued lands:** Another major reason for land disputes is that many farmers and land owners do not want to part with their lands, which may have a high economic and resale

value due to their productivity. Several cases of land-related disputes also stem from the dissatisfaction of farmers and locals with the compensation offered. Examples of such cases are the Delhi Mumbai Industrial Corridor Project, the Haligudi Steel Project in Karnataka, the Kachchh Cement Plant Project in Gujarat, and the Balpur Thermal Power Project in Chhattisgarh.

POSCO, a multinational steel-making company headquartered in Pohang, South Korea, has similarly faced opposition from the farmers of the Haligudi village who wanted higher compensation for their fertile land where they grow cotton. POSCO eventually shelved the project due to the inordinate delay in acquiring land.

**3.5.2.3 Environmental impact:** Many of the land disputes related to stalled projects are linked to the perceived environmental impacts of these projects. In many of our case studies, we found that there was widespread concern about the environmental impacts of these projects, even if this was not the only reason for their opposition. In the case of the coastal thermal power projects, there has been opposition on the grounds that there would be damage to the marine ecology, and destruction of fish breeding grounds and wetlands. Lastly, many of these projects are on forest lands that are central to the livelihoods of many local people. Admittedly, the desire to protect these forest areas is tied in with the economic benefits that they derive from them. However, there appears to be a significant amount of support mobilized around the issues of environmental degradation and destruction.

## 4. Key Observations from the study

**4.1 Procedures and rules are not adhered to:** One of the observations was that often, forest land or commons in Schedule V Areas are being handed over to projects without consent as required by law. Legal procedures are often not followed or are subverted when beginning projects. Examples include Vedanta's mining activities in the Niyamgiri hills, the Bhadradi power project in Telangana, and the Srikakulam power projects—all of which took off before receiving mandatory environmental clearances.

**4.2 Land is often times a distant cause for conflict:** For example an aluminum project in Odisha illustrates how land disputes can indirectly stall major investments projects.

The massive Smelter and Captive Power Project planned by RSB Metaltech in Kamakhyanagar, Odisha, has been stalled. The reason is listed as a 'fuel/feedstock/raw material supply problem' in the CapEx database. The Kamakhyanagar smelter was supposed to get its raw material supply from the aluminum refinery located in Rayagada district. However, the RSB alumina refinery in Rayagada ran into problems as the local communities claimed that the company was illegally encroaching on public forest land. Massive protests and resistance from the communities followed, holding up the refinery project and subsequently leading to a stalling of the main smelter project in Kamakhyanagar.

It is important to note that while this project has been stalled due to land-related conflicts, this is not shown as such in its entry in the CapEx database.

**4.3 Delays in resolving cases relating to land conflicts.** Of the 21 cases that were related to land conflicts, we found that all of them had faced long periods of delays. These ranged anywhere from 5-20 years, and many are still embroiled in these disputes. There are many different issues involved here. Firstly, delays occur because the company is not able to get the permits, clearances and permissions on time. Secondly, protests and resistance from local communities lead to delays. In other cases, delays can occur even after the company has secured the land for the project. As part of the compensation for giving up their lands, farmers are promised a job in the new company. However, if delays occur, then farmers are often left with no land or job, which cuts them off from any source of livelihood.

## 5. Moving forward/Policy recommendations

It is clear that analysts have underestimated the effects of land-related disputes and conflicts on stalled projects, as well as their risk to investment. To get a better understanding of this problem, a larger and more representative sample of stalled projects is needed. In the case of private land acquisition, which accounts for nearly 18 percent of all stalled projects in the sample, the perception of unfair or low compensation drives many of the disputes. The unwillingness of investors to adequately compensate landowners can lead to protracted conflicts that end up costing far more in the long run due to project delays. The acquisition of private lands has at least elicited a public policy debate. However, the case of customary lands, which are a bigger cause of disputes and stalling of investments, has evoked little or no debate or policy response. Cadastral systems, which formalize ownership through legal entitlement, hardly mention customary arrangements. Lack of such legal recognition neither eliminates customary claims nor makes the lands “empty” to be assigned to new parties. When such lands are treated as public lands, enabling the governments to assign them for a new purpose, conflicts erupt because such assignments curtail access to food, water, energy, and other vital resources that are essential for the survival of local communities with customary claims.

Neglect of customary claims of communities is even more problematic in forest land and Schedule V Areas. Constitutional provisions such as the Forest Rights Act (2006) and the Panchayati Raj Extension to Scheduled Areas (PESA) mandate that free, prior, and informed consent (FPIC) is obtained from local communities in case of diversion of forest lands and acquisition of any land (private or common) in the scheduled areas. However, there has been very slow progress in implementing the Forest Rights Act,<sup>1</sup> and in many cases, there is a deliberate subversion of the Act’s provisions by local governments. Similarly, the constitutional guarantees to tribal communities and provisions of PESA are often not enforced. The fate of communities outside these two categories of customary lands is even worse, as they receive no formal legal protection.

Through this analysis, what is also made clear is the magnitude of the cost imposed by land conflicts and disputes on the Indian economy and society. For example, 15 percent of all studied projects have been stalled primarily because of disputes over common/public lands, with a total investment of Rs. 118,800 crores (Rs. 1188 billion) at risk. It is clear that land conflicts pose a very significant risk to investments, and both investors and the government need to address the issue of how to account for this risk through risk analysis tools, and how to mitigate it through risk mitigation strategies.

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## Status of Forest Rights recognized vis a vis potential area under forest rights

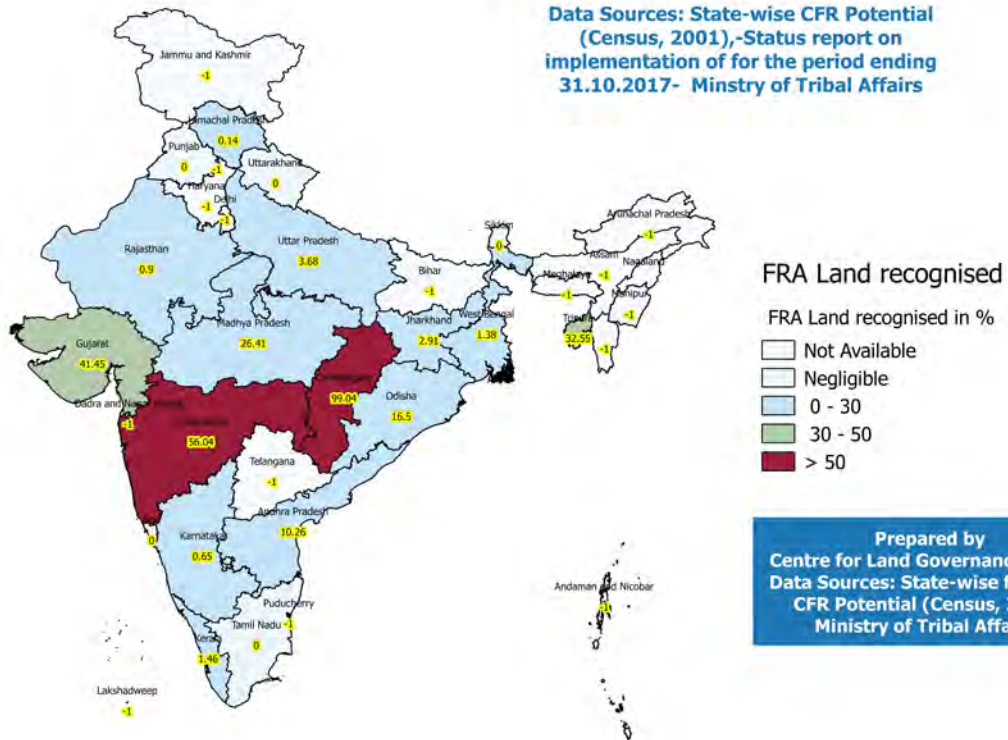
Center for Land Governance, NRMCC

*As on October 2017*

# State of Land Report India

## Percentage of FRA Land recognised

Data Sources: State-wise CFR Potential (Census, 2001), -Status report on implementation of for the period ending 31.10.2017- Ministry of Tribal Affairs




### FRA Land recognised

FRA Land recognised in %

- Not Available
- Negligible
- 0 - 30
- 30 - 50
- > 50

Prepared by  
Centre for Land Governance, NRM  
Data Sources: State-wise figures of  
CFR Potential (Census, 2001),  
Ministry of Tribal Affairs.



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