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INDIAN INSTITUTE FOR
HUMAN SETTLEMENTS

Land Records Modernisation

State-Level Experiences

Policy Brief

LAND RECORDS MODERNISATION: STATE-LEVEL EXPERIENCES

Maintaining land records is a state subject under the Indian Constitution. State particularities are not just legal and institutional. They also stem from historical land tenure and settlement experiences of colonial and pre-colonial origin, which persist to this day.

In the following sections, some state-level experiences and challenges with land records modernisation (LRM) are highlighted.

Patterns of Property Ownership

Land records have to be robust enough to record *de facto* real time realities of property ownership, beyond individually owned land parcels, in India. Land ownership in many states, such as Haryana and Punjab, is recorded as 'shares' in the Record of Rights (RoR), without further physical demarcation. On ground, legacy practices of possession prevail, which include joint ownership in some cases. The situation can get complicated at the time of transfer/transaction/physical construction/land acquisition/payment of compensation, etc.

In some states, land consolidation has been successful. For example, in Haryana, land records are arranged as per equi-areal, parcel boundaries. However, this regular grid does not 'mirror' property ownership at individual level. Multiple 'share' based ownership, possession and use arrangements may be extant. Some states have significant proportion of lands with community rights, jointly held rights, usufruct arrangements, etc.

In most urban areas, ownership of built-up property, as opposed to just land, is relevant. Typically, lease markets may be more prolific than sale markets, but not captured in urban records. Alternate use and tenure arrangements, ranging from high volume of transfers/transactions/arrangements in 'slum'/informal and squatter settlement areas to high-value transactions/arrangements between owners, developers and investors, may not be captured by simply recording individual land ownership.

Survey and Cadastre Aspects of LRM

The spatial component of a record is important to build a consolidated cadastre-based system, at the state-level and/or a national Spatial Data Infrastructure, over time. However, in existing records, spatial data is often less accurate as compared to textual data and there are data mismatches between textual and spatial records. Spatial data is often not updated when the RoR (textual data) is updated. Spatial data recording also incorporates significant human errors. Courts do not use spatial records to determine how much land is legally held by a person(s). Area calculated from the RoR has legal relevance. In some states, like Karnataka, new initiatives such as the Integrated Mutation Phodi and the pre-mutation 11 E sketch prepared before registration, integrate the updating of spatial data, with the registration and mutation of a transaction, in rural areas. This cuts down on fraud during registration, and the gap between the registration and mutation stages. The lack of such validation was one of the issues that affected the implementation of instant mutations in Himachal Pradesh.

In some states, for example, Gujarat, Haryana, Himachal Pradesh, and particularly in some urban initiatives such as the Urban Property Ownership Records (UPOR) in Karnataka, city surveys in Gujarat, Rohtak municipal initiative in Haryana, and settlement in urban areas in Himachal Pradesh, full resurveys are being undertaken. Some of these surveys are creating geo-referenced cadastral maps. In the older set of spatial records, consolidated maps of neighbouring villages often do not match, and there are mismatches between textual data and spatial data. In the case of resurveys, there may be issues of reconciling the spatial boundaries and textual data in existing records, with the boundaries identified during fresh surveys. Extensive mapping exercises, for example Haryana Space Application Centre's (HARSAC) efforts in Haryana to create state-level geo-referenced cadastral maps, using satellite imaging, and to prepare a map base where property demarcation can be undertaken remotely, are legally stymied both *de facto* and *de jure* by data mismatches, particularly boundary mismatches between new maps

without legal relevance, old revenue maps with limited legal relevance and RoR data that is legally relevant, even if they incorporate errors. Gujarat has shown the political will to undertake such a state-wide resurvey, capturing the on-ground situation. While mismatches, i.e., discrepancy between new survey findings and legacy records, up to 5 per cent are considered acceptable, private parties with higher mismatches may approach dispute resolution mechanisms. Such resurveys also tend to take a long time (Himachal Pradesh, Bihar), and hence there are chances of the new survey data becoming obsolete even before it is accepted. These issues need to be addressed by developing relevant protocols and procedures at the state level to reconcile data mismatches, hear and adjudicate claims, objections, such that courts are more willing to accept the new spatial databases as legally relevant. Gujarat has, for example, in its Resurvey Manual of 2012, provided for relevant protocols.

Institutional Aspects of LRM

The Departments of Registration, Revenue and Survey are central to land records creation and their updating. It has been suggested that these departments be integrated as a part of land records modernisation efforts, especially since lack of coordination leads to the mismatch between the records of the three departments. The lack of coordination between them has led to non-updated records, and gaps between spatial and textual data (computed to be approximately 20 years in Karnataka before the introduction of the 11 E sketch and the Integrated Mutation Phodi). Some smaller states, such as Himachal Pradesh, have integrated departments. Haryana has integrated the functions leading to much better coordination. However, in larger states, like Karnataka and Bihar, the merging is either partial or not done at all. In Karnataka, the data of the departments is linked through data bridges created in technology platforms like BHOOMI.

Another institutional integration issue emerges with regards to other government departments and parastatal organisations, such as planning and development authorities, industrial authorities, ULBs, etc. that affect land holdings and land use through development of new areas, land acquisition, conversion of agricultural lands, development permissions, extracting land revenues, etc., particularly in urban and peri-urban areas and areas with high economic potential. These organisations maintain their own land and property data which exist in departmental data silos and are not linked with revenue records. They also own large areas and are involved with institutional-scale land transactions. These institutional questions become particularly relevant in areas where there is a transition from rural to urban. Economic and legal benefits may be associated with institutional integration with the banking sector and the judiciary. Avoiding loss of spatial coverage and data loss when transitioning from rural records to a system of urban records, is a key challenge for land records modernisation in the future. In many states, land conversion from agricultural to non-agricultural uses is the stage at which rural to urban transition of records becomes difficult to manage. In some states and union territories, such as Haryana, Himachal Pradesh and Puducherry, there are records of rights for both urban and rural areas. However, there are problems of transition from rural to urban records.

Operational Aspects of Transitioning to Technology Platforms

Various operational issues have been identified in the process of transitioning to technology platforms. The immediate problem has been resistance from existing functionaries, particularly at the ground-level (*Tahsildars* and *Patwaris*), who have a very significant role in the current system. This reluctance, combined with their lack of computer skills, is a key roadblock to existing initiatives. There is need to provide functional training to *Patwaris* and *Tahsildars* to use new systems. In addition, some states like Haryana have faced delays and problems because of the quality of work being done by external agencies on creating a new technology-led system, highlighting the need to have protocols for a quality check in these processes.

Existing paper records present multiple challenges, including errors, data mismatches and non-updating, all of which have to be reconciled. Existing errors have also migrated to new technology platforms. Some data issues have cropped up because of institutional reasons, for example, Jharkhand's requests to Bihar to share maps are reported to be pending for 13 years. Data migration and technology obsolescence are

key concerns. Digitised data itself may become obsolete, if not computerised quickly and updated in parallel.

There have been intra-state differences in recording styles (e.g. *Patwaris* and *Tahsildars* use different styles for their records), and non-standard measurement units (in Himachal Pradesh, 1 *Biswa* is 425 sq ft in Solan district and 450 sq ft in Una district) which have presented additional challenges. Mistakes in entering data during digitisation have been discovered despite precautions, such as biometric checks in BHOOI. Though these mistakes affect the quality of the database, rectification has been slow.

National Informatics Centre (NIC) in Himachal Pradesh has taken a particularly unique approach of designing the modules of HimRIS and HimBHOOI, technology platforms for registration and mutation, respectively, to incorporate district and even the *Tehsil*-level differences in property types, property rights and use arrangements. Though this process has taken time, land records in the state now mirror on-ground property relations better. This highlights the potential as well as challenges of flexibility in the design of new technology platforms.

Legal Aspects of LRM

Resolving the pending backlog of land and property disputes and mitigating new ones is essential for land markets to function appropriately and for land to be distributed to the most productive users. 'Clear' titling, even conclusive titling (as per the Torrens system) has been identified by some as a way to address the current litigious environment. The Model Land Titling Bill, 2011, also makes a series of institutional recommendations such as the creation of a new Land Titling Authority, Land Titling Tribunal and Land Titling Fund. There has been very little traction from states on this Model Bill, partly because of the nature of institutional architecture proposed and partly for failing to take into account the difficulties in land records modernisation. The recent Rajasthan Urban Land (Certification of Titles) Act 2016 proposes setting up of a state urban land title certification authority which would grant provisional and permanent certificates of title, upon application. However, the Act does not seem to adequately consider existing technological initiatives, textual-spatial record disparities, inter-institutional data silos, and lack of database on disputes. Experiences from states highlight the diversity of issues that need to be resolved before a conclusive title-based records system becomes possible, especially in urban areas and peri-urban areas. Moreover, some of the changes that have been made in operations and processes of land recordation do not have legal precedent. It is important to understand the court's position regarding process changes such as presumptive 'clear' titles being generated in urban areas, via UPOR, through a quasi-legal process of reviewing property documentation and the 11E sketch in BHOOI, which is not required statutorily. The court's position would highlight how litigations and disputes in this regard may be handled.

Some states have amended their registration provisions to include electronic records and bar manual records. Madhya Pradesh, for example, has brought in several key changes to the central Registration Act¹, such as making PoA compulsorily registerable and making it mandatory to produce a map and a photograph of the property before registration of sale deed. Maharashtra has initiated an online registration through use of Aadhar cards, especially in cases of lease and license, first sale of developer plots and allotments by state housing development agency. In states such as Haryana and Himachal Pradesh, in the absence of clear legislative changes to incorporate new technology, standing orders are also resorted to. The central enactments, namely the Registration Act, 1908, the Stamp Act, 1899 and the Transfer of Property Act, 1882 remain pertinent, while respective state revenue acts, and particular state-specific legislations also govern processes related to land records.

Financial Aspects of LRM

The ultimate success of land records modernisation will depend on regular record updating, which would be facilitated by a sustainable financing plan. Funds are also essential for additional functions such as surveys, technology upgradation, and capacity building of functionaries from time to time. Central grants are available through Digital India Land Records Modernisation Programme (DILRMP) for modernising

rural records. However, as per the DoLR 2013-14 figures, states have utilised only 20 per cent of the funds that have been released.

Currently, there is no central programme for urban initiatives, even though some of the highest value land transactions that are now taking place in urban areas and peri-urban areas are attracting FDI interest. Private sector funding and participation have been built in to address this financial issue, but there is a need to think more closely about private sector incentives, as well as different models of public-private partnership structures to increase their interest and participation. UPOR, for example, has not been able to become financially self-sustaining because of operational problems in implementation. Meanwhile, BHOOMI, the largest rural records modernisation initiative is now self-financing and holds important financial lessons for other programmes.

Non-ownership Rights in Urban and Peri-urban Land

RoRs in rural areas record tenancies. Various (land reform) legislations statutorily define the need to include tenancies in records, as a way to record rights of those who have use or possession rights. However, in urban areas, property cards primarily record ownership. Owners may include lease details on their cards voluntarily.

Studies have shown that market transactions in India involve more rental transactions than sale transactions. This is likely to be a trend in the future too, as property prices increase. In India, housing costs are very high as compared to income levels. Studies show that a person earning the average national income needs 100 years to afford an 800 sq ft house in a city at prevailing rates. This is higher than even high value markets like Hong Kong, London, Paris and Tokyo, where it will take between 62-67 years (Chakravorty, 2013)ⁱⁱ.

Property disputes often emerge from transactions that are not sale transactions since a variety of different instruments are used. Property transactions in urban areas are also changing and concepts such as air rights, Transfer of Development Rights and different property arrangements under public-private partnerships and Special Economic Zones, are becoming more common. More changes are expected with new legislations in favour of FDI and Real Estate Investment Trusts (REITs). Many countries are witnessing transactions based on carbon market trading.

In India, we also have a significant number of people (25 to 50 per cent) living in 'slums' and informal settlements, generating 40 to 60 per cent of the urban GDP. Some have use and possession rights from government bodies or from courts, for example, when a slum is notified and given basic services without ownership papers. It is important to understand if property cards, with their focus on ownership, will be broad enough to cover the spectrum of urban market transactions, along with the disputes that may arise from them in the future.

Key Learning from State-level Experiences

The history and political economy of each state and region has shaped its particular land-society relations. For example, hill states and plains states differ in terms of the type of land holdings, the history of how individuals, families, villages and particular communities own and use land, how land holdings are organised, and even how land records surveys are undertaken and the nature of relevant recording practices and record formats that are able to reflect local land-society relations.

These differences are also linked to other regional characteristics such as the level of urbanisation, presence of forest areas, mining areas, history of land management, such as consolidation, history of land reform, statutory provisions facilitating rights, the recording of rights and ultimately the recording practices and record formats in use.

Comprehensive, socially, economically and legally relevant land records need to be able to 'mirror' the on-ground reality of property rights and use arrangements to cut down on property-related disputes, to adequately capture the current state of how land ownership, possession and use across the country and

to facilitate future economic and social development. This is possible if land records modernisation is designed at the state-level taking into account variations and differences among states.

ⁱ Pending for GoI approval, as of 26th Feb 2015.

ⁱⁱ Chakravorty, S. (2013). *The price of land: acquisition, conflict, consequence*. Oxford University Press.