

Strengthening Land Tenure in Informal Settings: A Fit-For-Purpose Approach

Written by: Frank Pichel & Madaleine Weber

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Abstract

A functioning land administration sector is the foundation for economic growth. Unfortunately, effective land registry and cadastral systems with national coverage exist in only a fraction of the world's countries. Cadasta Foundation is working to overcome this challenge by developing simple digital tools and technology to help partners efficiently document, analyze, store, and share critical land and resource rights information. By creating an accessible digital record of land, property, and resource rights, Cadasta works to empower individuals, organizations, communities, governments, and businesses with the information they need to make data-driven decisions and put vulnerable communities and their needs on the map.

Introduction

Land rights are the foundation of stability and prosperity. Governments and communities seeking economic growth and sustainable development must document land rights and ensure land and resource rights are secure for all citizens—particularly for women and other marginalized communities.

Unfortunately, functioning land administration systems with properly documented and secure rights to land are more the exception than the rule. In fact, more than 70 percent of the property in emerging economies is undocumented (USAID, 2015). A growing percentage of the world's urban population live in homes to which they have no legal right. And a majority of smallholder farmers around the world farm without the protection of having their legal rights to their land documented by government records.

The undocumented rights to land in each of these settings, both urban and rural, is a significant barrier to development. Combined, they seed conflict, insecurity, corrode confidence in government institutions, limit both domestic and foreign investment, and lead to inefficient utilization of resources. When government land records do not reflect the reality on the ground, communities are vulnerable to displacement and have diminished opportunities, and governments cannot adequately serve the needs of their citizens.

In the past, international donors have tried to address this problem by supporting the development of highly sophisticated and expensive digital land registries. The implementation of these registries must be combined with legal and policy reform campaigns and data collection exercises which require cadres of surveyors and legal professionals. Unfortunately, the information technology systems, which can be challenging to use and upkeep, can be difficult to maintain by resource-starved government agencies. Furthermore, due to inaccessibility of government offices, lengthy time periods for processing, unclear processes and high costs, transactions which occur following the initial registration campaigns are often not registered within the formal systems, resulting in a land administration information that quickly becomes out-of-date.

In summary, the international development community has, at great expense, repeatedly and unsuccessfully worked to create large-scale and cost-effective modern land tenure systems for emerging economies. To be sure, these efforts are much needed given that a functional land administration system is the foundation of development. But with limited success, there is a clear need for alternative approaches to incrementally strengthen tenure. By documenting and compiling evidence of rights— whether through transaction agreements, utility bills, tax receipts or attestations from neighbors or customary leaders— one can begin to build a case of land use and de facto rights. When collected in line with national standards, this data can eventually mature to de jure recognition of rights.

Fit-For-Purpose Land Administration

Land tenure professionals and the larger development community have recognized that traditional approaches to recording property rights are not keeping pace with demand and remain inaccessible to the vast majority of people around the world. The 2014 joint FIG and World Bank publication, fit-for-purpose land administration, identified the need to adapt solutions for the context, as opposed to adhering to rigid regulations for processes and accuracy. While the fit-for-purpose concept recognizes the potential to collect data in a variety of ways, the challenge remains of how to document and share the resulting land information in a sustainable and cost-effective manner. While governments might be slow to legally recognize the data collected using fit-for-purpose approaches, there continues to be a clear

demand for strengthened rights by citizens at large— a demand that can only be cost effectively met by using fit-for-purpose approaches.

In the absence of government-endorsed avenues for the affordable and equitable documentation of rights, various organizations around the world have begun documenting informal land rights at the local level. These localized approaches— often led by customary leaders, slum dwellers associations, religious institutions, microfinance institutions, and even local governments— are more flexible, provide the needed data for decision making, and perhaps most importantly, can more quickly serve the pressing needs of communities to defend their land and resources. Additionally, this data builds an evidence base and advocacy case for their rights to land and could be incrementally upgraded to eventually integrate with formal national systems.

Cadasta Foundation was launched in January 2015 as a non-profit organization with support from the Department for International Development (UK Aid) and the Omidyar Network. Cadasta, works to tackle the challenges of traditional land administrations systems by providing an open digital tool set for documenting land and resource rights data. Cadasta's tools and expertise provide the backend infrastructure allowing organizations collecting and managing land rights to focus on what they do best— effectively collecting and managing land information— without having to worry about software development, data acquisition, and data security.

The Cadasta Approach

The Cadasta Platform is a secure, Esri ArcGIS supported suite of mobile and web-based tools designed to help users collect, analyze, store, and share data on land and resource rights. The platform can be used to capture multilayered information about people's relationship to land and resources, including spatial dimensions, footage from drones, digital maps, video or audio interviews, photographs, paper attestations, tax receipts, and other supporting documentation. It can store data that has been previously collected through traditional paper-based surveys and maps and can be paired with a wide variety of other digital data collection tools.

Cadasta's fit-for-purpose digital data collection forms allow partners to collect data quickly based on their specific needs. The flexibility of the platform allows for data collection in a variety of ways. By building flexible, cost effective, and user-friendly technology for land rights documentation, Cadasta works to overcome surveyor shortages and the problems faced with traditional systems.

In this context, Cadasta works as a technical service provider of land expertise and technology for individuals, communities, organizations, governments, and businesses looking to strengthen land security and build stronger, more sustainable communities. Cadasta offers its partners affordable and open-access tools and technical assistance to support efforts to document and secure land and resource rights.

Cadasta's approach is informed by years of experience working with formal land administration processes and national-level land information systems, as well as working with volunteered geographic information to develop robust and up-to-date datasets. Our services are participatory, demand-driven, and tailored to local project needs. As land and data professionals, we support our partners in identifying and mitigating conflict, ensuring gender-sensitive approaches, and building knowledge of land systems. Our training materials and sessions are adapted to local use and focus on training of trainers. Our goal is to strengthen community capacity for data collection and mapping that will lead to strengthened rights. We also align with national-level land data standards and systems wherever possible and collaborate with other stakeholders, such as land administration officials and the private sector.

Through our tools, technology, services, and partnerships, we aim to empower individuals, organizations, communities, and governments with the information they need to make data-driven decisions to secure their land and resource rights to build stronger, more sustainable communities.

An Incremental Approach

In much of the world, particularly in Africa, land is managed by customary land tenure systems that are not part of any formal statutory system (Wiley, 2012). In these countries, the government is not able to recognize or manage what is happening in these customary areas.

Additionally, the shortage of qualified land administrators and surveyors in emerging economies impacts government's ability to manage a formal land system. For example in Zambia, a country of over 16 million people, there are only 29 licensed private land surveyors and 7 licensed surveyors working under the Surveyor General's Office (Chileshe & Shamaoma, 2014). Cadasta's platform and tools make it possible for communities and individuals to collect data and document their customary rights to their land and resources.

The idea is to move communities along a continuum, incrementally documenting their land rights. For this purpose, a sketch map with satellite imagery of imprecise boundaries may be a good enough starting point. Local partners can then improve on that data, if they choose, until

they eventually meet their government's requirements. By strengthening the evidence of customary land rights, the security of these rights is improved.

Cadasta At Work

Since its founding, dozens of organizations around the world have trusted Cadasta to help them collect, analyze, and store sensitive information about land and resource rights. In just two years, Cadasta's services and tools have been used by dozens of partners in nonprofits organizations, governments agencies, and businesses for advocacy, informal and formal documentation, and supply-chain documentation. Partners have used the platform to document and manage land information in a variety of settings— from urban informal settlements, to rural agricultural holdings seeking supply chain transparency and improved land management, to customary rights in Africa. The common factor amongst all these programs is that in each case, informal land rights have been documented by the communities themselves with support from actors seen as leaders within the community or region. While formal registration of land rights for these partners have proven to be difficult, our approach allows for the collection of documentation and establishment of a baseline of evidence of land use and occupancy, with data collection being aligned with government requirements.

Creating a Transparent Supply Chain for Sustainable Palm OilCadasta partnered with the Tanzania based organization Seed Change to create a transparent supply chain for smallholder palm oil farmers. In doing so, Cadasta helped Seed Change develop a tailor-made digital questionnaire that not only documented the farmer's land rights and create an evidence base for sustainable farming, but also collected information about Seed Change's impact in the community as well as data on farm inputs and production.

By documenting each farmer's land rights and gathering other information about farming practices, Seed Change can help farmers become certified sustainable by the Roundtable on Sustainable Palm Oil (RSPO). The sustainable practices mandated by the RSPO will improve livelihoods for these smallholder farmers and help protect the environment for generations to come. To date, data collectors using GPS-enabled smartphones, have gathered data from nearly 500 households, and counting.

Data collection is important for building the land rights evidence base, but in the case of agricultural lands, the benefits extend well beyond the issue of land rights. By incorporating the GPS points and detailed farm and land information, Seed Change and the farmers they work with are better able to assess plot sizes, and therefore the amount of fertilizers and pesticides needed to make more accurate predictions on farm yield.

Unlocking the Full Potential of Community Land Rights MappingIn 2016, the international legal advocacy group Namati partnered with Cadasta to organize a series of participatory mapping exercises with grassroots organizations in Kenya, Nepal, and Myanmar. Prior to their partnership with Cadasta, Namati's community mapping was primarily done on hand-drawn sketches, in which communities drew representations of how they understood their land use and boundaries on paper maps. While participatory, this approach left the more accurate spatial data collection to be completed by the government, which in many cases is delayed due to a lack of government resources.

Recognizing the need to capture more accurate spatial share with governments, Namati worked with Cadasta to develop approaches that would allow for the use of GPS and smartphone technology combined with satellite imagery, to directly capture and record evidence of community land and resource rights. The Cadasta platform made it possible to keep Namati's partner data in an organized and secure system that can be shared with a broader team for collaboration.

Based on these experiences, Namati and Cadasta continued to work together to develop participatory mapping training tools and techniques. The pilots and feedback from partner organizations and communities have directly informed the refinement of Cadasta's online platform and other integrated tools. Namati has also strengthened other aspects of their community land protection efforts based on learnings from the mapping pilots, including how to use mapping activities to ensure that agreed neighborhood boundaries are documented clearly and precisely, increasing involvement by community leaders and local government, and improving transparency between communities and organizations on the use of community data.

Land Rights for Urban Slum DwellersIn the Indian state of Odisha, government officials made history and headlines in May 2018 with the Odisha Livable Habitat Mission by issuing formal land rights certificates to 2,000 landless residents of urban informal settlements. For the first time, these nontransferable, but inheritable titles recognize the rights of the informal settlement residents.

Speaking with the Thomson Reuters Foundation about the initiative, G. Mathivathanan, Commissioner at the State Department of Housing and Urban Development, noted "Now the slum dwellers can live without having fear of being evicted."

The project utilized Cadasta's tools and training for data collection and was combined with community data collectors, imagery from drones, smartphone applications, and participation from local government. Following the initial training, partners were able to document more than 3,000 households, 2,000 of which have already received inheritable and mortgageable

land titles. Following the success of the training, the project has expanded to a second phase, intended to cover 250,000 households and a million citizens by the end of 2018. The initiative is already being touted as the “world’s largest slum land titling initiative” and will likely be replicated throughout Odisha State and beyond.

Conclusion

From Nigeria to the Nepal, traditional approaches to documenting and recording property rights are not keeping pace with increased demand. However, recent technological innovations, including drones, GPS technology, and cloud computing are making it easier than ever to document land rights. By making it possible for individuals, communities, and organizations to map and document property, the Cadasta Foundation is working to overcome the hurdles posed by traditional land registries and cadastral systems. In doing so, Cadasta aims to empower individuals, organizations, communities, and governments with the information they need to make data-driven decisions to secure their land and resource rights to build stronger, more sustainable communities.

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