Insecure title to land prevents people from taking full advantage of the productive uses of the land. Where people have proper title to their land, however, they can use the property as collateral for a loan or transfer land parcels in which they have invested. And titles can serve as a valuable insurance and savings tool for families, providing protection during difficult times and in retirement. Indeed, with the protection of secure title guaranteed by a reliable land registration system, land can be used to create wealth for the broader benefit of society and contribute to the eradication of poverty. Because land and buildings account for between half and three-quarters of the wealth in most economies, having a reliable system for registering and transferring property titles matters.

Doing Business, through its registering property indicators, measures the efficiency of property registration systems through the time, cost and number of procedures required to transfer a commercial property. These indicators do not provide information on the overall quality of land administration systems. This year, for the first time, Doing Business has collected preliminary data in 170 economies on the reliability, transparency and coverage of land registration systems and on land dispute resolution (figure 7.1). Next year Doing Business will refine the newly collected data and intends to add a new indicator on the quality of land administration to its current set of registering property indicators.

Data on reliability assess whether the land registry and mapping system (cadastre) have adequate infrastructure to guarantee high standards and reduce the risk of errors. Reliable land administration systems can provide up-to-date information that is sufficient to make meaningful inferences on ownership.

Data on transparency record whether the land administration system makes land-related information publicly available. This can inform the public about transaction possibilities and foster the development of a unified and more efficient land market.

Data on coverage assess the extent to which the land registry and mapping system (cadastre) provide complete geographic coverage of privately held land parcels. To be accessible to third parties, and thus enforceable to anyone, all transactions need to be publicly verified and authenticated at the registry.

Data on dispute resolution measure the accessibility of conflict resolution mechanisms and the extent of liability for entities or agents recording land transactions. Unclear responsibilities in land transactions lead to more land disputes, diverting land from productive uses. Clear responsibilities can help keep the number of unresolved disputes low.
HOW TO PROVIDE RELIABLE INFORMATION?

A reliable land administration system provides clear information on the ownership of property, supports the security of tenure and facilitates the development of a land market (figure 7.2). It also inhibits fraudulent actions, such as using false documents to conduct land transactions or selling properties multiple times without the knowledge of the true owners. One key to fulfilling these functions is to have in place the infrastructure needed to maintain land information, supported by an appropriate institutional framework and adequate capacity. Doing Business has developed a series of questions to assess the quality of the infrastructure of land administration systems. These questions focus mainly on how land records are stored at the land registry, whether the information is kept in an electronic database, whether the databases for landownership and maps are linked and whether each parcel has a unique, searchable identification number.

In many economies property titles are registered manually and most titles remain stored in paper archives with restricted access. In 62 economies property titles are kept only in paper format. Relying on a paper-based system increases the time required to conduct a title search and the opportunities for fraud. It also increases the vulnerability of the records to political instability, poor climate conditions, natural disasters or such incidents as the Great Chicago Fire of 1871, which destroyed almost all the city’s real estate records. More recently, in Kosovo the entire cadastral system had to be reconstructed after years of armed conflict led to the loss or destruction of the system’s records. In Pakistan the floods of 2010 destroyed thousands of paper land records, leading to the loss of the only evidence that people had of their land tenure. There was no backup.

Computerization can provide a backup system to protect information. It can also make cross-checking data easier for the public agencies that deal with land issues as well as for the general public. Many economies are moving toward computerized land administration systems. Over the past 6 years 51 economies computerized their land registries. Mozambique, where a flood affected land records in 2000, scanned most of its titles in 2013. Mauritius implemented a new electronic system that allows the automatic population of property registration information dating back to 1978 and enables different branches of the Registrar General Department to share information. Other economies scanned all their historical records.

Digital records also make it easier to access key information on the legal status of properties. An electronic database for encumbrances can quickly show whether there is a mortgage or other charges on a property or any other limitations that would impede its sale to a third party. According to Doing Business research, half of economies around the world have an electronic database for rights and encumbrances (figure 7.3).

Cadastral maps play an important part in increasing tenure security—by providing information about the physical characteristics of land, the boundaries of parcels and any changes in those boundaries. They can also help ensure a stable source of public revenue by supporting more complete...
coverage of property taxes. A case in point was the Maputo Structure Plan in Mozambique—an initiative to collect geographic data that was aimed at aiding the physical development of the capital but that also has the potential to help further improve the collection of property taxes. Today, half of economies around the world have a geographic information system in place—a computerized system that can capture, store and analyze geographic data. While most are high-income economies, some are low- and middle-income economies. In Sub-Saharan Africa, for example, South Africa and Swaziland both have an electronic database to record property boundaries, check maps and provide updated geographic information on land parcels.

Linking the land registry with the cadastral system has important advantages. It helps in maintaining up-to-date records on the legal rights to properties and the spatial characteristics of land plots, thus increasing tenure security. And it provides a single point of contact for those conducting land transactions. In recent years several economies, mostly in Europe and Central Asia, have merged their land registries and cadastral systems. For example, the Russian Federation created a unified electronic land and property registry in 2013 by merging the state registry of immovable property and the state topographical and cadastral mapping system.

Having all agencies use a single identification number for property is also beneficial. It allows quick identification of the legal status of a parcel, providing greater certainty for the parties engaged in a transfer of property and reducing the likelihood of mistakes. A majority of economies use a single identification number, with the highest shares doing so in Europe and Central Asia, the OECD high-income group and the Middle East and North Africa.

**HOW DOES TRANSPARENCY SUPPORT QUALITY?**

Transparency is a key element in the quality of land administration systems. It helps eliminate asymmetries in information between users and officials in a land administration system and increases the efficiency of the land market. Doing Business has collected data about transparency through a set of questions focusing on who has access to land information, whether the fee schedule for land registry services is publicly available, whether there are service standards for property transactions, whether statistics about land transactions are collected and made available to the public and whether any specific mechanism is in place for filing a complaint.

Transparency in a land administration system provides a defense against requirements for informal payments, such as to register property, change a title, acquire information on land or process cadastral surveys. Complicated processes and limited availability of information in the land sector facilitate such bribery. But a transparent land administration system—one in which all land-related information is publicly available, all procedures and property transactions are clear, and information on fees for public services is easy to access—minimizes the possibilities for informal payments and abuses of the system. Indeed, cross-country data show that the greater the quality and transparency of a land administration system, the lower the incidence of bribery at the land registry (figure 7.4).

Among all economies included in the research, 45 do not make the fee schedule for land registry services publicly available. In 7 of these economies the fee schedule is not accessible, and in 38 it is accessible only by asking for it in person from a public official. In stark contrast, 83 economies make information on fee schedules available online. Some economies go even further:

**FIGURE 7.4 A better and more transparent land administration system is associated with a lower incidence of bribery at the land registry**

![Figure 7.4](image-url)

Note: The score on the overall quality of land administration is obtained through a set of questions on reliability, transparency, coverage and dispute resolution. For example, an economy receives 1 point if it has a functional electronic database for encumbrances; 1 point if it makes the documents and fee schedules for property registration publicly available (online or on public boards); 1 point if it compiles statistics on land transactions and makes them publicly available and so on. The highest possible score, indicating the highest overall quality, is 30 points. The reported incidence of bribery refers to the share of people reporting in Transparency International’s Global Corruption Barometer 2013 survey that when they had contact with land services in the previous 12 months; they paid a bribe for services. The correlation between the score on the overall quality of land administration and the reported incidence of bribery is −0.60. The relationship is significant at the 1% level after controlling for income per capita. The analysis is based on 88 observations.

Source: Doing Business database; Transparency International data.
Sweden has an online system allowing anyone to access not only information on fees but also any information on plots going back 400 years. Advanced systems like Sweden’s are not easy to afford. A much cheaper alternative is to make fees available through public boards or brochures—the approach used by land registries in 34 economies (figure 7.5).

Governments can give citizens the chance to be informed and contribute to a better business environment by promoting transparency about their operations—for example, by tracking the performance of their land services and openly sharing statistics about property transactions. Lithuania compiles statistics on the performance of its land registries and makes them available to the public. Panama’s land registry dedicates a page on its online portal to transparency, publishing monthly data on the number of transactions broken down by type—mortgages, first registrations, transfers. Overall, 98 economies compile statistics on land transactions (figure 7.6), though only 56 of those make their statistics public.

One powerful consequence of transparency is accountability: information gives citizens the power of knowing what to expect and whom to hold accountable in case things go awry. But if the mechanisms through which individuals or agencies are held accountable function poorly, information alone will not be enough. Of all economies included in the research, only 63 have specific means for filing an official complaint about land services. One is Malaysia, where the land registry and the cadastre allow users to file anonymous complaints through their website, which are then sent directly to the director of the department. Another is Mauritius, where the website of the Registrar General Department enables users to fill out a form providing feedback or filing a complaint.

Around the world, only 27% of economies have a registry with full coverage of private land—and only 34% a cadastre with complete coverage (figure 7.7). South Asia, Latin America and the Caribbean and Sub-Saharan Africa have the smallest shares of economies with full coverage of private land, while the OECD high-income group and Europe and Central Asia have the largest shares with full coverage.

Several economies have increased the coverage of their land registry and cadastre by registering properties and the associated rights through either systematic adjudication or a more sporadic approach. Between 1984 and 2004 Thailand implemented one of the world’s largest land titling programs, using efficient, systematic land titling procedures and issuing more than 8.5 million titles. Recognized as very successful, the project has served as a model for other countries in East Asia and the Pacific. More recently, in 2014 Rwanda completed its process of regularizing land tenure, aimed at registering all land in the country. The effort required surveying all land parcels and providing land titles to all rightful claimants. It registered 10.3 million parcels through a low-cost, community-based process starting in 2010. With the process complete,
the land registry is now able to provide information on different categories of tenure, through a database searchable by parcel across the entire country.

FIGURE 7.7 Land registries and cadastres provide the highest coverage of private land in OECD high-income economies and Europe and Central Asia

![Bar chart showing coverage of land registries and mapping systems in different regions.]

Source: Doing Business database.

FIGURE 7.8 How long does it take to resolve a land dispute in the first instance?

![Bar chart showing time required to resolve land disputes in different regions.]

Note: Data refer to a standardized case involving a dispute over a property transfer between 2 domestic companies. Source: Doing Business database.

To help avoid land disputes, it is essential to ensure the accuracy of the information underlying land transactions and to identify cases of fraud—by verifying and authenticating the identity of parties to a property transaction and validating all property records. This can be done by the registrar or by professional agents such as notaries and lawyers, whose legal responsibilities should be clearly specified in the law. In some economies the state requires a professional agent—a public notary in France and Italy, a public officer in the Republic of Korea—to be fully responsible for the transaction.

In many economies the state provides a guarantee over property registration. Among all economies covered by the research, 149 have a property registration system backed by a state guarantee. The most advanced forms of guarantee indemnify individuals for losses suffered because of deficiencies in information provided by the registry. In Shanghai, for example, the state will provide full compensation...
for losses due to a technical error by a public officer. In England and Wales indemnity is also payable for losses incurred because of a mistake in an official search or an official copy.

Accuracy of information in land registries can help avoid potential disputes. But when disputes do arise, alternative dispute resolution mechanisms—such as voluntary mediation procedures—can help deal with them at a preliminary stage, easing the burden on congested courts. 25 A dozen economies have mediation procedures specifically for land disputes. One is Liberia, which instituted a program for resolving land disputes through mediation to fill a gap left by the virtual collapse of its court system after the civil war. 26 The government set up the National Land Commission to address fundamental land tenure issues and develop interim measures for resolving land disputes.

When land disputes end up in court, an efficient legal system should be able to provide a timely resolution. But time requirements vary considerably across economies. Obtaining a judgment in a standard land dispute takes less than a year in 58 economies, but up to 3 years or more in another 55 economies. There is also much variation across regions. In 61% of economies in the OECD high-income group and 58% in Europe and Central Asia, land disputes can be resolved within a year. In 80% of economies in South Asia and 62% in Latin America and the Caribbean, the process usually takes 3 years or more (figure 7.8).

Whether a judicial system provides official statistics on the number of land disputes filed and resolved can be an indicator of its overall quality—reflecting something about how well it functions and how transparent it is. Among all economies included in the research, about 20 have such statistics available. In Finland, for example, statistics show that 1,173 land disputes were settled in the district courts in 2012; these represented about 0.25% of all disputes resolved through court in the country. In Georgia 168 land disputes were
resolved in 2013, accounting for 1.92% of all disputes settled by the courts of first instance. And in Latvia 324 land dispute claims were filed in 2013, representing 0.91% of all claims submitted to the courts of first instance.

WHY DOES THE QUALITY MATTER FOR ALL?

A reliable, transparent, complete and secure land registration system plays an important part in supporting access to credit and economic growth for all. Providing a sound property registration system is a first step toward improving access to credit. Indeed, the higher the quality of the land administration system, the higher the level of domestic credit provided by the financial sector to the economy (figure 7.9).

In addition, clear property boundaries and ownership are important factors in social stability and social development. If people feel secure in their homes and on their land, they are more likely to invest in them, such as by making improvements that benefit health and well-being. Having a safe property registration system for all is associated with lower levels of inequality (figure 7.10). Economies with a reliable and transparent land administration system tend to have lower inequality and to be more inclusive.

CONCLUSION

Expanding the registering property indicators to measure the quality of land administration systems as well as the efficiency of property transactions enriches the substance of these indicators. It provides measures of key elements of land administration systems—elements that matter for all people in a society. New data on reliability, transparency, coverage and dispute resolution show much variation in the overall quality of land administration systems among the 170 economies covered. The data also show that examples of good practice exist in all regions of the world—and will help policy makers identify those examples.

NOTES

This case study was written by Edgar Chavez, Laura Ding, Frédéric Meunier, Parvina Rakhimova and Mariligne Youbi.

1. UN-Habitat 2013. Title refers to the formal legal document serving as evidence of ownership. This document can take a range of forms.
4. UN-Habitat 2013.
5. UN-Habitat 2012.
8. UN-Habitat 2012.
9. UNECE 2012.
10. One definition of a transparent business environment is one in which individuals possess essential information about the environment in which they operate, meaning that information asymmetries do not place an unjustifiable burden on them (OECD 2002).
12. For more on the information available, see the website of Sweden’s mapping, cadastral and land registration authority (Lantmäteriet) at http://www.lantmateriet.se /en/Maps-and-geographic-information.
13. For more on the information available, see the website of the Lithuanian Real Property Cadastre and Register at http:// www.registrucentras.lt.
15. For more information, see the website of the Department of the Director General of Land and Mines of Malaysia at http:// www.kptg.gov.my/?q=en/content /complaints-enquiries.
16. For more information, see the website of the Registrar General Department of Mauritius at http://registrar.mof.gov.mv/English /Pages/About%20the%20department /Land.aspx.
17. Deininger, Selod and Burns 2012.
18. UNECE 2012.
23. Deininger, Selod and Burns 2012.
24. Deininger, Selod and Burns 2012.
25. FAO 2012.