

Land tenure security

If you live in the rich world, you likely take for granted the fact that you're extremely unlikely to wake up one day and find that your home is being taken away for no reason whatsoever. That security is far from given in the poorer parts of the globe. While most people in high-income countries are protected by legally binding documents proving they own or have agreements to rent the place in which they live, land tenure is much less secure in less affluent nations. In fact, the World Bank estimates that 70% of people have no access to formal land registration systems.ⁱ

Not only does this insecurity make life far more stressful, but it also weighs down economic development in a variety of ways, including making homes less valuable because you may not own them and lowering crop yields by discouraging farmers from long-term investments in wells or irrigation. If policymakers provide greater confidence that people can't be kicked off land they've paid for, remarkable economic potential could be unlocked along with a great deal of social good—a fantastic return on what's a comparatively small investment.

Securing land ownership to drive development

For the majority of the world's poor, property rights are a rare luxury.ⁱⁱ One global survey shows that one in five, or almost a billion people, consider it likely or very likely they will be evicted from their land or their property in the next five years.ⁱⁱⁱ Not only does this create a pervasive psychological burden on these people, it seriously hampers economic growth. As Peruvian economist Hernando de Soto pointed out, without formal titles, the land on which billions of poor people live and work is “dead capital.”^{iv} Without a formal title, they can't use their land as collateral to raise capital to invest in the future.

A lack of clear and secure ownership also leads to more conflict over who owns what, which is costly in its own right. Across many poorer countries, land disputes comprise a high share of court cases.

Insecure land tenure is especially problematic for farmers because the land delivers them their livelihoods. In some cases, even if they don't have formal ownership, farmers can get some security from other systems, like certificates of customary ownership in Uganda or transferable user certificates in China, but far too many farmers are uncertain about whether their land will still be theirs in the future.

Just as you would be reluctant to put in a new kitchen in a house that might not be yours next year, farmers who are uncertain of ownership will invest less in the future productivity of the land they work. This includes planting multi-year crops, digging new wells, installing irrigation, or improving soil quality.

The result is less food production and lower profitability for farmers. Agricultural land without security has 20% lower yields than land without uncertainty and conflict (Byamugisha, 2016)

Of course, the upside of the massive problem is that if you could provide more secure land tenure, you could unlock significant agricultural potential, raise incomes, and make homes more livable because you wouldn't fear arbitrary eviction.

Globally, the challenge of getting there is huge because many countries simply haven't surveyed a lot of their land—a prerequisite to creating a formal system of land titles. In total, only about 30 countries have nationwide, functioning land administration systems.^v Even if we look at just nations' capital cities, fewer than half of the world's countries (and just 13% of those in Africa) have registered or mapped private land, and public land is often not registered at all.^{vi}

Moreover, fewer than a third of countries—and only two in Africa (Rwanda and South Africa)—maintain records digitally so that land can be managed efficiently and without prohibitively high compliance costs for private owners.

The goal is not to get everything mapped and registered—even the rich world has not achieved that—but to achieve most of it. In the OECD, 97% of urban plots are mapped and 68% registered, with 71% and 68%, respectively, for rural areas. Globally, just 46% of urban areas and 24% of rural areas are mapped, while registration is lower at 22% for both.

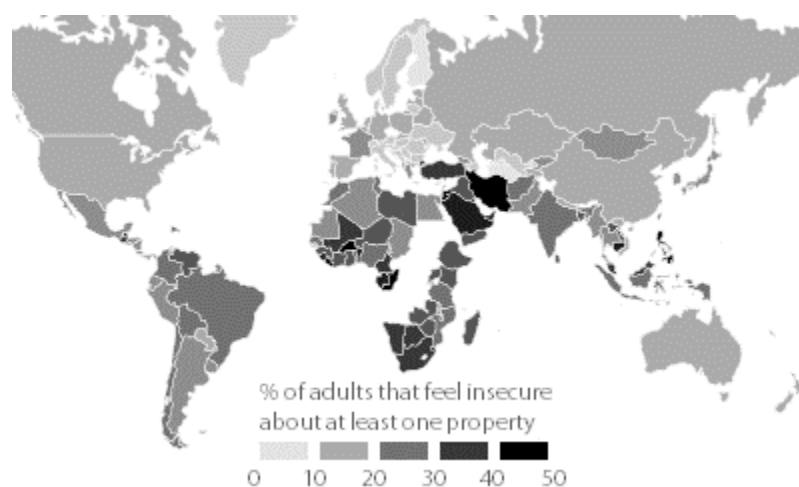
To find out how best to do this, the research paper on which this chapter is based focuses on the region where land tenure is least secure: Sub-Saharan Africa.

More secure property rights could unlock a continent of potential

Sub-Saharan Africa has the lowest proportion of mapped land in the world, at 14%. In a recent survey, the continent stands out with the most adults insecure in the tenure of their property (see Source: <https://www.prindex.net/reports/prindex-comparative-report-july-2020/>

Figure 15.1 Levels of perceived tenure insecurity across all properties.

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Source: <https://www.prindex.net/reports/prindex-comparative-report-july-2020/>

Figure 15.1 Levels of perceived tenure insecurity across all properties.

Moreover, the cost of registering land in sub-Saharan Africa is the highest of all regions in the world (see Table 15.1).

Yet, there have been real improvements on the continent—most notably in Rwanda. It was the first African country to complete a nationwide land regularization project. Before it was undertaken, 80% of Rwanda’s land was neither formally demarcated nor registered.

Rwanda’s project started with regulatory and institutional reform. In 1999, it passed a law eliminating discrimination against female land inheritance; a 2004 land policy law was followed by the reinforcement of land administration.

From 2007–10, the government ran a pilot program to register some 15,000 land parcels. A process for systematic low-cost demarcation and adjudication using aerial photography or high-resolution satellite

imagery was designed and implemented through trained local surveyors. To avoid later conflict, they then recorded, in public and in the presence of neighbors and local authorities, the agreed-upon plot boundaries on the image. Sometimes, minor disputes had to first be resolved by local elders.

Table 15.1 Land registration, number of procedures, time it takes, and cost in percent of property value.

| Region | Procedures (number) | Time (days) | Cost (% of property value) |
|----------------------------|---------------------|-------------|----------------------------|
| East Asia + Pacific | 5.5 | 71.9 | 4.5 |
| Europe + Central Asia | 5.5 | 20.8 | 2.7 |
| Latin America + Caribbean | 7.4 | 63.7 | 5.9 |
| Middle East + North Africa | 5.4 | 26.6 | 5.6 |
| OECD | 4.7 | 23.6 | 4.2 |
| South Asia | 6.9 | 107.8 | 7.0 |
| Sub-Saharan Africa | 6.1 | 51.6 | 7.3 |

The process resulted in a demarcation slip that led to the generation of unique land parcel IDs. The government created a registration of property claims and issued receipts to the owners.

These data were then put in a digital database, and local offices displayed the results publicly on their walls for at least one month, during which time objections could be raised and corrections made as needed. Only after that were titles and lease certificates issued at the central level and distributed to landowners.

By 2013, the Rwanda Natural Resource Authority had demarcated over 11.3 million land parcels out of an estimated 11.5 million land parcels in the country with the participation of local leaders, owners, and neighbors at a unit cost of \$6 per parcel. The impact of formal land ownership appeared in both land and credit markets, with \$2.6 billion in mortgage lending secured by land.

Research [shows](#) that households that are more secure in their ownership are more likely to invest in protecting and conserving soil quality. Women also seem to benefit even more from more secure land tenure than men: The estimated effects on investments by female-headed households are double that of male-headed households.

There are still some meaningful policy challenges in Rwanda. In rural areas, a substantial share of land transfers remains informal. Rural land markets in Rwanda are very active, with more than 3% of parcels being transacted every year, yet less than 0.15% of nonresidential land parcels have transfers formally registered. That means the parcels have been formally registered, but the subsequent transactions are not, which creates confusion and fresh land tenure insecurity.

While it may partially be caused by the poor awareness of regulations, subdivision restrictions (agricultural parcels may not be divided below one hectare), and the cost of travel to the relevant offices, it mostly comes down to money. The flat registration fee for land transfers is so high in rural areas that it is unaffordable, costing 23% of the land value (about 30 times higher than the more reasonable 0.6% urban cost).

On land tenure SDGs, we're entirely off-track

Unfortunately, although the issue of secure land tenure is highlighted under two SDGs, we're quite far from achieving either of them.

Under the heading of ending poverty in all its forms, the [SDG 1.4 promises](#) that “all men and women, in particular the poor and the vulnerable, should have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property and inheritance.” [SDG 5.a](#),

meanwhile, speaks to gender disparity in land ownership because globally, women make up just 13% of agricultural landholders.

Although the focus of a great deal of development and donor organizations has turned to these targets, almost no country has reported making progress on achieving them.

Between the years 2016 and 2019, [zero countries](#) reported that they had made progress on the first target of achieving universal access to basic services, ownership, and control over land and other forms of property and inheritance, and only ten countries have submitted reports on the gender gap. There has been no voluntary reporting on perceptions of land security.

The [SDG Land Momentum Group](#), a section of the International Land Coalition that tracks land-related SDG achievement, found in 2020 that “most countries have yet to prioritize land rights in their national development agendas and most have not undertaken significant action.”

There are a number of reasons why improving land tenure security is difficult. While it is great for a nation, it’s not necessarily beneficial for its most powerful people. They can use land ownership to help out friends and hinder enemies. In Zambia, the president outright owns all the land. Its 1995 Lands Act states that “all land in Zambia shall vest absolutely in the President” and “the President may alienate land vested in him to any Zambian.”

In many countries, local custom-based land systems are governed by traditional authorities (chiefs) who, through their local representatives, have the power to reallocate land at will. Granting genuine tenure security would require political elites to give up the power to expropriate land or grant favors to allies.

This shows that tenure security is not just an economic problem that needs resources but also a political problem that requires politicians who are willing to give up power.

Land titling is also a complex issue that involves many stakeholders. Some stakeholders, like surveyors, currently benefit from the current situation where costs are high. Land registration can also be expensive, while the benefits take some time to realize. And legacy titles—common in Africa—also pose a regulatory hurdle.

These issues, among others, have halted progress. Based on our current trajectory, we won’t only miss the 2030 deadline, but also, we’ll never achieve universal land security or close gender gaps in land ownership.

How to improve land security—Starting in sub-Saharan Africa

As Rwanda’s example shows, land security is not just about having a piece of paper. In addition to registering a country’s parcels, it requires formal changes to the law; administrative and regulatory actions, including campaigns to educate the public about changes and to create support so that it is a collaborative process; the participation of local cultural and religious leaders and widespread media; efforts to mobilize and train field staff; the adjudication, surveying, mapping, and demarcating boundaries; the capturing and digitizing of field data; the public disclosure and confirmation of field adjudication results; and the registration and distribution of land rights documents. And this complex process needs to be sustainable across new land transactions—a problem Rwanda still needs to surmount.

The research paper for this chapter estimates the costs and benefits of carrying through all this in sub-Saharan Africa, where the challenges likely are the greatest. The general lack of mapping in the region means there is no exact data on the share of urban or rural land that is registered, so the paper makes a first estimate of how many land parcels exist and how many are registered. Based on several surveys and additional assumptions, it finds that of the 1.1 billion people in the region, almost 60% live in rural areas.

This is also the place where most people are not registered—86%. The 40% of the population who live in urban areas are better off, but still, 45% are unregistered.

Table 15.2 Baseline data in millions on population, household, and land parcels.

| | Population | Households | Land parcels | Unregistered parcels |
|--------------|------------|------------|--------------|----------------------|
| Rural | 667 | 97 | 213 | 183 |
| Urban | 469 | 68 | 68 | 31 |

From farms to skyscrapers: The costs of surveying and registering land

As we see in Rwanda, achieving land security in a rural area is harder than in an urban one. The scale of the issue in sub-Saharan Africa is quite large. Across the continent, of 213 million total rural land parcels, an estimated 14% are registered, leaving 86% (183 million parcels) unregistered.

The bulk of this unregistered land, however, likely doesn't need to be mapped with great precision. An estimated 90% of the total—or 164.5 million parcels—is of relatively low value and so less likely to be contested. This means it could be demarcated using aerial photos or high-resolution satellite imagery, as Rwanda and Ethiopia have done, and registered at an average cost of \$10 per parcel, for a total cost of \$1.65 billion (see Table 15.3).

The remaining unregistered land, 18.3 million parcels, is probably of higher value due to increasing demand either for production or conversion to urban or other high-value uses. Any boundary drawn is, therefore, much more likely to be contested, and so mapping must be done with more precise measurement, which costs more. Based on experience from Ethiopia, Uganda, and Ghana, the paper estimates an average surveying and registration cost of \$23 per parcel, totaling \$420 million.

Taken together, demarcating and registering individually owned, arable land in rural areas would cost about \$2.3 billion.

On top of this, communal land will also have to be registered. Until recently, this wasn't an urgent issue. The rights of community members in many countries in sub-Saharan Africa were quite secure within the local systems, and there was minimal outside demand for the land from non-community members. However, as the region's population has grown, so has land value and demand. Registering communal land has become a higher-priority concern in countries in which it makes up large chunks of the landscape. This includes Zambia, Angola, Ghana, Sierra Leone, Liberia, Tanzania, and the DRC, as well as in parts of northern Uganda and the western and south-eastern areas of Ethiopia, where there are large areas of communal land.

Registering and securing communal land tenure typically involve first organizing and formalizing land-owning groups and strengthening local institutions of land governance with the force of law, and second, adjudicating and demarcating external boundaries and registering the rights of the formalized groups.

The cost estimates are based on the varied experiences of Tanzania and Mozambique. In Tanzania, villages were already organized into administrative units, so surveying and registering communally owned land cost about \$500 to \$2,000 per village. In Mozambique, land-owning community groups still had to be formalized, in addition to external community boundaries drawn and the groups' rights registered. This cost about \$2,000 to \$10,000 per community.

The total cost of registering communal land rights (about 15,000 community groups) in a country will be between about \$34 million if communities are already formally organized (as is the case in about 15

countries) and roughly \$46 million if land-owning community groups are currently informal (as is true in about 15 countries). The total estimated cost is \$1.2 billion.

Taken with the cost of registering individual land, the total cost of surveying and registering rural land in sub-Saharan Africa is just over \$3.5 billion.

Table 15.3 Initial costs of improving sub-Saharan Africa's land tenure security.

| | Description of Units | Units | Unit Price (\$) | Cost (\$ millions) |
|---|------------------------------------|-------|-----------------|--------------------|
| Rural land registration costs | | | | |
| Individually owned average-value land | Million parcels | 164.6 | 11 | 1,889 |
| Individually owned high-value land | Million parcels | 18.3 | 23 | 420 |
| Communally owned land of formalized groups | Countries (unit price in millions) | 15 | 34 | 516 |
| Communally owned land of unformalized groups | Countries (unit price in millions) | 15 | 46 | 689 |
| Total rural land registration costs | | | | 3,514 |
| Urban land registration costs outside slums | | | | |
| In areas with a high registration rate | Million parcels | 3.4 | 29 | 98 |
| In areas with a low registration rate | Million parcels | 27.2 | 29 | 780 |
| Urban land registration costs in slums | Countries (unit price in millions) | 48 | 34 | 1,652 |
| Total urban land registration costs | | | | 2,530 |
| Digitizing land registries and information | Countries (unit price in millions) | 44 | 23 | 1,010 |
| Strengthen institutions to resolve disputes and manage expropriations | Countries (unit price in millions) | 48 | 23 | 1,102 |
| TOTAL COST | | | | 8,156 |

That's quite a high cost, particularly when you compare it to urban surveying and registration.

Here, the research for this chapter works from the example of two cities that each face different tenure security landscapes, Nairobi in Kenya and Dar es Salaam in Tanzania. This is because, while there is no reliable information on the continent-wide share of registered urban land in sub-Saharan Africa, there is robust data for individual cities. The information gleaned from studies in Nairobi and Dar es Salaam provides a range of costs that likely face urban land-registration efforts across the region.

In Nairobi, 90% of private land is registered, while in Dar es Salaam, only up to 20% of the land is registered. About 50% of the unregistered land in the latter city is attached to legally-backed documents that give occupants some level of ownership but fall well short of formal titles. In Dar es Salaam, these are called Residential Licenses and are renewable every five years, but similar systems exist in Bamako in Mali, Kampala in Uganda, Lagos in Nigeria, and many other sub-Saharan African cities.

The paper assumes that half of sub-Saharan Africa's private urban land parcels (with the exception of slums, a matter we will delve into shortly) are of the Nairobi type with a 90% registration rate, and the other half is of a Dar es Salaam type, with a 20% registration rate.

Given that sub-Saharan Africa has an estimated 68 million urban land parcels in total, the unregistered parcels for the Nairobi-type amount to 3.4 million, while the unregistered parcels for the Dar es Salaam type amount to 27.2 million. In total, the region has 30.6 million unregistered parcels.

Assuming planning, surveying, and registering costs of \$29 per parcel (based on experiences in Thailand, Ghana, and Uganda), the cost of registering 30.6 million urban land parcels is estimated to be \$878 million.

The cost of surveying and registering slums is a different matter. These informal settlements exist mostly on public land and did not originally form part of local land use plans. Given that slums, although declining, have persisted through urbanization in developing countries even when registration of urban land is quite advanced, it appears sensible to assume that not all land in slums will be registered entirely, nor will all slums in sub-Saharan Africa be eliminated within ten years, even with increased funding and policy reforms. It will take a longer period of engagement to tackle not only the issues of planning, surveying, and registering but also the many other issues that contribute to the proliferation of slums.

So, the paper deals with the costs of only registering half of the land in slums and preventing new slums from growing.

There are, fortunately, some fairly cost-efficient ways to survey these informal settlements. Preliminary results from donor-supported formalization programs in Kenya, Lesotho, and Tanzania indicate that this can be done more cost-effectively through the joint field activities of physical planning and surveying systematically area by area, in bulk. This bulk planning and surveying, when coupled with new, participatory, and cheaper approaches to capturing land rights information using tablets and smartphones, can reduce costs with the participation of locals. On average, each country will need \$34 million to register around half of the land in slums and stop slums' proliferation—totaling \$1.65 billion across sub-Saharan Africa.

Altogether, the cost of registering urban land, including slums, adds up to about \$2.5 billion.

Of course, the process of securing land tenure doesn't end with simply mapping and logging the land. Countries also must have effective land administration services and judicial resolution of disputes, as well as operate and maintain the systems they've constructed.

Factoring in the costs of digitization and dispute resolution

For this process to be successful in sub-Saharan Africa, land administration and the resolution of land disputes also need to become more efficient and transparent.

As the prohibitive land transfer fees in the Rwanda example showed, unless the formal land tenure system is accessible with reasonable costs, it won't prevail. It's important that countries streamline government processes and digitize the data in publicly available land registries. Rwanda, Uganda, and Mauritius have completed digitization programs, and other countries have made some progress in this area, including Ethiopia, South Africa, Benin, Côte D'Ivoire, Malawi, Mozambique, and Zambia.

This chapter's paper budgets for a digitization program that covers about 44 countries at an average cost of \$23 million per country, based on Uganda's experience with the development and implementation of its digitization program. The total cost of digitizing land registries and information services is about \$1 billion.

Strengthening land dispute resolution is a more complex task. In almost all sub-Saharan African countries, land disputes make up a high share of court cases, in the range of 50% in Ghana and Uganda and 30–50% in Ethiopia.

There has been some progress on this pervasive problem. A number of sub-Saharan African countries, including Ghana and Tanzania, have implemented incremental changes to strengthen their judicial systems. This included hiring retired judges and paying sitting judges overtime to reduce backlogs of court cases. These countries have also increased courts' capacity by training judges and giving them more resources. They even established specialized courts and deployed alternative dispute-resolution mechanisms and customary institutions.

But a review by the authors of this chapter's research indicated that no single mechanism alone has been successful. Strengthening land resolution—which is vital to land tenure security—requires a combination of approaches to ensure system-wide reform.

The paper estimates that implementing the necessary system-wide reforms—along with the multiple measures needed to tackle problems in land acquisition and compensation—would cost an average of \$23 million per country. For the 48 countries in sub-Saharan Africa, that'd be a total of \$1.1 billion.

Annual operations and maintenance costs

As for any system, there are also ongoing costs to run and maintain land administration services. These include:

- Back-office costs, such as personnel, hardware, software maintenance and upgrades, and information technology upgrades, like the integration of blockchain technology.
- Decentralization costs, which are highly contextual but typically entail some combination of sub-national land service offices and agents who cover the last mile of land administration for remote and rural residents.
- Networking costs to link the digital land registry to other public agencies like the revenue authorities and credit agencies.
- The cost of a document management system of cadastral surveys and certificates.
- The cost of operating a complaints management system to oversee disputes and competing claims.
- Land-use planning and development costs will require revision as populations grow and migrate and economic activity evolves.
- The cost of the continued public awareness campaigns about land rights and responsibilities, as well as communication on how owners and renters can access services, and the costs, to encourage the continued registration of parcels and stem informal transactions.

When these functions are insufficiently budgeted for, beneficiaries, especially women and rural residents, are unable to access the potential wealth that secure land tenure can bring. The total costs for operation and maintenance are much higher than the other costs because they are recurrent. The total discounted costs for rural land registration reach \$21.5 billion (see Table 15.4), and for urban, \$3.6 billion (see Table 15.5).

Making rural fields more productive—The benefits of improving land tenure security

In rural areas, land tenure security means that farmers will likely invest more in farm improvements as well as land conservation technologies. Landowners will also have more credit at their disposal to do this because they can mortgage the property or use their farms as tradable collateral. In particular, these benefits will allow farmers to undertake investments that have high up-front costs and further-off benefits, such as planting multi-year crops. The result of all this should be to increase farms' yields and farmers' income.

In addition, the formal right to own and transfer land will create a secure, private market for land, which may lead to a more efficient allocation of properties than there was in the previous informal system.

How much impact will all these pathways have on total benefits? The authors sift through the available literature but note that the bulk of studies undertaken in sub-Saharan Africa find modest to no impact from land security on agricultural productivity and household income but do demonstrate substantive evidence of farmer investment in its various forms. However, a large meta-study, which unfortunately did not include

African countries, suggests that the most likely outcome of land tenure security is 15% higher household incomes.

The current academic paper uses this estimate of 15% higher incomes and conservatively estimates these benefits will only be realized five years after land tenure security is achieved. The dearth of research data showing high levels of positive impacts in African settings suggests that we should consider the benefit estimates an upper-bound estimate.

This means we're able to calculate all the costs and all the benefits. The costs are the actual registration costs, the digitization and court costs, and the ongoing operations and maintenance costs, as described above.

The land registration is phased in, with 10% being registered each year for the first ten years. Each year the cost is about \$350 million, discounted to today about \$2.6 billion (see Table 15.4). The digitization and court cases will run to about \$120 million a year each year for the first decade and, discounted, be about \$900 million.

The highest cost is the operations and maintenance, which increases as there are more and more parcels registered, from \$200 million in the second year to over \$2.5 billion annually after a decade. In total, this is \$21.5 billion out of the entire budget of \$24.9 billion.

The key benefit is that these households will be more productive, but as explored above, this increase is phased in only five years after the policy. So, the first 10% to be registered will see an increase in their farm income start only five years later.

Given an average farm income of about \$4,700, their benefit is \$700, and this will accrue to 8.3 million households. The total benefit in the first year that the productivity gains manifest will therefore be almost \$6 billion. This income effect increases dramatically over time as all households are registered and agricultural productivity increases. When every household has reached its productivity boost, the benefit will be \$80 billion. In total, the discounted income increase is over \$450 billion.

Table 15.4 Rural land registration costs and benefits in billion dollars over 30 years, alongside the benefit-cost ratio.

| | | |
|--------------------|---|------|
| Costs | | |
| | Land registration | 2.5 |
| | Digitization and courts | 0.9 |
| | Operations | 21.5 |
| | Total costs | 24.9 |
| Benefits | | |
| | Total benefits from higher productivity | 454 |
| Benefit-cost ratio | | |
| | | 18 |

Note: Future costs and benefits are discounted at 8%.

If things play out as estimated, improving rural land tenure security would be a very good investment—returning \$18 back on the dollar. There are, however, two important caveats. First, the dearth of evidence showing a high productivity increase from improved land tenure security in sub-Saharan Africa seems to indicate that the paper's predicted benefits may be an upper-bound estimate. It may simply be that it's harder to achieve the benefits other regions have seen. Second, this analysis assumes a successful outcome, like in Rwanda. It's plausible that efforts to improve land tenure security will flounder in some places.

Both points will drag down the benefit-cost ratio, which, to begin with, is only a smidgen above 15. That likely means the real BCR could be below the threshold for a phenomenal investment, although it's still a good one.

Making urban house ownership more secure

The benefits are clearer for securing urban land tenure, for which there is data across many developing countries. The main upside is that tenure security of the land makes the property on the land more secure—you know that you won't be evicted from your house. The value of this increased security is measured simply in the increased willingness to pay for the house. Across Peru, Ecuador, the Philippines, and Tanzania, urban housing values increase on average by 25% following the provision of land titles.

Table 15.5 Urban land registration costs and benefits in billion dollars over 30 years, alongside the benefit-cost ratio.

| | | |
|--------------------|---|-------|
| Costs | | |
| | Land registration | \$1.8 |
| | Digitization and courts | \$0.6 |
| | Operations | \$3.6 |
| | Total costs | \$6.1 |
| Benefits | | |
| | Total benefits from more valuable housing | \$183 |
| Benefit-cost ratio | | |
| | | 30 |

Note: Future costs and benefits are discounted at 8%.

To find how this works out in dollars, the authors first estimate the average price of an urban house across sub-Saharan Africa. The dataset the authors use finds an average of \$48,000 across 46 countries, but that average is skewed by some smaller countries with very expensive housing, such as Comoros and Gabon. In many of the countries with large urban populations, houses can be built somewhat cheaper—as in Ethiopia, where the average is just \$20,000.

So, the population-weighted average comes to \$32,000. Note that this price includes not just the house itself but also land cost, taxes, legal compliance (e.g., getting building approval), and infrastructure (pipes and roads). Using this figure, the authors calculate that each house will increase in value by an average of \$8,000.

In Table 15.5, we can see the total costs and benefits. For the costs, the paper assumes that 10% of parcels will be registered each year, bringing the project to completion in a decade. Land registration will cost about \$250 million annually or, in discounted terms, about \$1.8 billion in total. Digitization and court costs are \$89 million, or about \$600 million, discounted over the decade. Operations still cost the most because the burden keeps increasing as more land is registered. The annual costs rise from \$36 million to over \$430 million, which, discounted over the next 30 years, reach about \$3.6 billion.

The benefits will be \$8,000 for each of the 30 million unregistered urban parcels over the next ten years, or a discounted total of \$183 billion in increased value.

If reality conforms to this estimate, the BCR comes to slightly more than \$30 per dollar spent—a fantastic return. While the data here is more robust than for the rural benefit, there is still the possibility that some countries' efforts to secure urban land tenure will fail. The paper's model doesn't account for that risk, but

even if we assume, very pessimistically, that almost half of all national projects completely fail, the BCR would still be above \$15.

It is better knowing what you have

Overall, there are strong, very effective policies to ensure better land tenure for people in both urban and rural areas in sub-Saharan Africa. There is also a tremendous need. The region has the highest land registration costs, the lowest proportion of registered land, and the most people living on land that has unsecured tenure in the world.

Table 15.6 Summary result of benefit-cost analysis for land tenure security in sub-Saharan Africa, billion dollars over 30 years.

| | Benefits | Costs | BCR |
|--------------|----------|-------|-----------|
| Rural | 454 | 24.9 | 18 |
| Urban | 183 | 6.1 | 30 |

Note: Future costs and benefits are discounted at 8%.

The return on reforms to improve either rural or urban land tenure could do a great deal of good—although the benefits are much clearer for helping the almost half a billion people living in urban sub-Saharan Africa. Achieving that policy will require overcoming many challenges, including the opposition of vested interests. But it is a reform well worth fighting for.

The academic paper is entitled “The investment case for land tenure security in sub-Saharan Africa: A cost-benefit analysis.” It is authored by

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The paper is published in Cambridge University Press’ *Journal of Benefit-Cost Analysis*, vol. 13, S1, 2023. You can access it here: <https://copenhagenconsensus.com/halftime>

The data and texts in this manuscript are not finalized. Intended use is for finding references, links and sources for the finalized text of the book Best Things First.

ⁱ <https://www.giz.de/expertise/downloads/giz2019-en-Positionspapier%204D30%20Sicherung%20von%20Landrechten.pdf>

ⁱⁱ <https://www.worldbank.org/en/news/feature/2017/03/24/why-secure-land-rights-matter>

ⁱⁱⁱ <https://www.prindex.net/reports/prindex-comparative-report-july-2020/>; survey for only 140 countries shows a global weighted average of 19% of 8 billion people, that is 1.52 billion people.

^{iv} <https://www.economist.com/middle-east-and-africa/2020/09/12/the-quest-for-secure-property-rights-in-africa>

^v <https://www.giz.de/expertise/downloads/giz2019-en-Positionspapier%204D30%20Sicherung%20von%20Landrechten.pdf>

^{vi} <https://blogs.worldbank.org/developmenttalk/billions-without-formal-land-rights-tech-revolution-offers-new-grounds-hope>