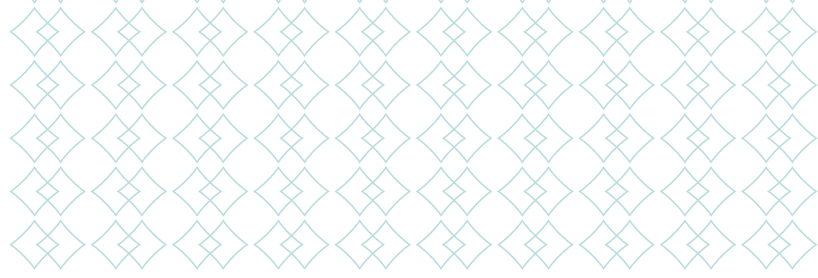


# 12

# Land





Profits per hectare on maize-cassava farms vary widely across similar plots cultivated by different families in the Akwapim region of southern Ghana. Most of the land cultivated by farmers in these villages is under the ultimate control of a paramount chief and is allocated locally through the matrilineage leadership. Insecure land tenure is associated with greatly reduced investment in land fertility. Individuals who are not central to the networks of social and political power that permeate these villages are much more likely to have their land expropriated when it is fallow. As a consequence, farm productivity for these individuals is correspondingly reduced. Women are rarely in positions of sufficient political power to be confident of their rights to land. So women fallow their plots less than their husbands and achieve 30% lower yields.<sup>1</sup>

Secure tenure provides incentives for land-attached investments to enhance productivity of land use and discourage unsustainable practices (such as soil mining) that generate negative effects. The definition of land rights and avenues to access it affect equality of opportunity, women's bargaining power, households' ability to bear risk and their sense of identity. If land can be transferred and markets are sufficiently liquid and their functioning not impeded by other market imperfections, it is ideal collateral that can allow those previously excluded to access financial markets. However, impediments to land market functioning can undermine the ability to use land as collateral in financial markets and make it more difficult for entrepreneurs, small or large, to access land to develop entrepreneurial activities.<sup>2</sup>

By allowing the productive use of land by individuals moving out of the agricultural sector, land rentals or sales can contribute to structural transformation. Land records are also indispensable to effectively manage public land in rural areas and to plan and finance urban expansion in a way that is associated with higher density rather than sprawl. Moreover, without well-defined land rights, it is difficult to provide incentives for production of environmental amenities.

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Klaus Deininger authored this chapter. Constructive input and comments from steering committee members Julio Berdegue (RIMISP), Dave Bledsoe (Landesa), Theo de Jager (Pan-African Farmers Association), Elshad Khanalibayli (UN-ECA Working Party on Land Administration), Steve Lawry (CIFOR), Father Francis Lucas (Asian NGO Coalition) and Peter Veit (World Resources Institute) throughout the process are gratefully acknowledged.



## What do the land indicators measure?

EBA land indicators measure laws and regulations that impact access to land markets for producers and agribusinesses (table 12.1). The indicators are organized as follows:

### **Coverage, relevance, and currency of land records:**

This indicator measures the extent to which relevant and up to date documentation of land rights is available for all. A key purpose of land records is to ensure land owners are confident enough about their rights being protected to make long-term investments in agriculture and transfer them to others, if they decide to take up nonagricultural opportunities.

**Coverage and ease of use.** This sub-indicator measures if land records provide information on ownership and location of land in an integrated fashion. Broad coverage is essential for land records to support access to finance and transferability, and to protect existing rights from an equity point of view. Moreover, to prevent disputes over boundaries or overlaps, and allow use of records for planning, land rights documentation needs to include a clear reproducible description of boundaries together with the written record that is updated in case of transfer or subdivision.

**Visibility of restrictions on land records.** This sub-indicator assesses the extent to which restrictions relating to a land parcel are evident on the record. Ensuring that all relevant restrictions are visible on the record is key to ensure that, before entering into contractual relationships involving a parcel of land, interested third parties need not conduct time-consuming and costly searches and inquiries. Complete records also reduce conflict and speed up dispute resolution.

**State land management:** The indicator measures how state-owned land, such as forests, parks, road reserves and other public spaces are identified and thus can be protected against encroachment.<sup>3</sup> The issue is particularly acute in low-income settings where laws stipulate that all land not explicitly registered or occupied by private parties—which are often farmlands—belongs to the state.

**Record information on state-managed land.** This sub-indicator measures whether state land is identified and mapped, and whether a field-based process is put in place before any land is transferred. Failure to have them may render large parts of the population vulnerable to dispossession and affect willingness to invest in the land.

**Transfer of state land for commercial use.** This sub-indicator measures if regulations governing the transfer of state land for commercial use ensure a transparent process. To ensure that state land is put to its best use,

any transfer of state land for commercial purposes (excluding social concerns) should be via public auction. If applicable, development conditions, means of verification, or sanctions for noncompliance should be clearly stipulated with key contractual provisions public and open to independent third-party monitoring.

**Equity and fairness:** This indicator measures the extent to which gender aspects of land are considered in policy-making, land can be accessed via rental or sales markets, and land rights are protected against expropriation without fair compensation. As a basic asset, equal treatment for different types of land owners or users is important, whether by gender or type of documentation.

**Gender-differentiated recording and reporting.** This sub-indicator measures regulations on monitoring the gender dimension of land rights to lay out the foundation for identifying the magnitude of this gap and assess if measures to close it are having any effect. Even if gender equality is guaranteed constitutionally, the extent to which such principles are translated into practice may be lagging.

**Freedom of leasing.** This sub-indicator focuses on regulations and restrictions on leasing. While the fact that land also provides an important social safety net may lead communities to restrict the ability to permanently transfer land,<sup>4</sup> leasing is critical for structural transformation and restrictions on its use may not only drive many efficiency-enhancing land transactions underground, enhancing insecurity for lessors (often single women), but also restricting the scope for more effective land use.

**Procedural safeguards in case of expropriation.** This sub-indicator measures regulations to ensure that expropriation is limited to public purpose, implemented transparently and with effective appeals mechanisms.<sup>5</sup> While provision of infrastructure and reallocation of agricultural land for industry and urban expansion can provide significant social benefits, having to fear land being expropriated without adequate compensation or due process can undermine investment incentives, lead to over-acquisition of land from a social point of view, and precipitate conflict. Often, expropriation threats imply that peri-urban land is not used for high value crops as in China<sup>6</sup> or Nigeria.

## How do countries perform on the land indicators?

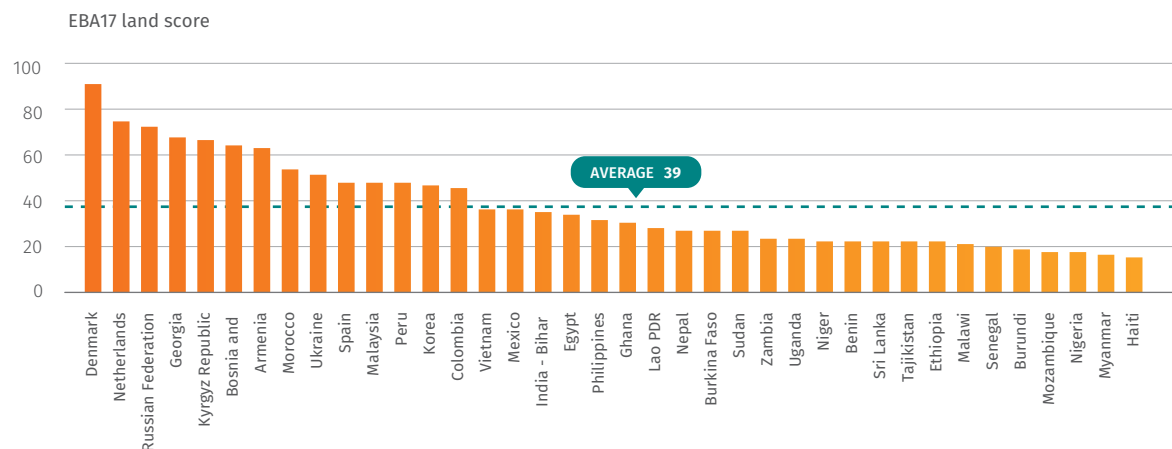
Overall scores for the 38 countries in the EBA land sample point towards wide variation in performance across countries (figure 12.1). OECD countries rank highest, followed by Europe and Central Asia where large sums were invested in land administration

**Table 12.1 | What do the land indicators measure?**

<p><b>COVERAGE, RELEVANCE AND CURRENCY OF RECORDS FOR PRIVATE LAND</b></p>	<p><b>Coverage and ease of use</b></p> <ul style="list-style-type: none"> <li>• Type of system for archiving information on land ownership</li> <li>• Type of system for archiving maps</li> <li>• Link between property ownership registry and mapping system</li> <li>• How immovable property is identified</li> </ul> <p><b>Visibility of restrictions on land records</b></p> <ul style="list-style-type: none"> <li>• Online linkage to bans for registering mortgages</li> <li>• Online linkage to enter public encumbrances</li> <li>• Online linkage for the judiciary to record civil disputes pertaining to a parcel</li> </ul>
<p><b>STATE LAND MANAGEMENT</b></p>	<p><b>Record information on state-managed land</b></p> <ul style="list-style-type: none"> <li>• State land is registered</li> <li>• State land is mapped</li> <li>• Field-based process</li> </ul> <p><b>Transfer of state land for commercial use</b></p> <ul style="list-style-type: none"> <li>• Public tender mechanism</li> <li>• Transparency and monitoring of contractual obligations</li> </ul>
<p><b>EQUITY AND FAIRNESS</b></p>	<p><b>Gender dimension of land records</b></p> <ul style="list-style-type: none"> <li>• Gender information kept at the registry</li> <li>• Regular reporting on gender-disaggregated statistics</li> </ul> <p><b>Freedom of leasing</b></p> <ul style="list-style-type: none"> <li>• Standardized lease contracts</li> <li>• Negotiation on rental rates</li> <li>• Legal restrictions on minimum duration on the leases</li> </ul> <p><b>Procedural safeguards in case of expropriation</b></p> <ul style="list-style-type: none"> <li>• Eligibility of compensation</li> <li>• Out-of-court arbitration process</li> <li>• Market value compensation (land, improvements, standing crops)</li> <li>• Appeal process</li> <li>• Safeguard on compensation</li> </ul>

Source: EBA database.

Figure 12.1 | Values of EBA land scores at the country level



Source: EBA database.

infrastructure over the last decade. Although scores are lowest for Sub-Saharan Africa, strengthening the regulatory environment for land governance can lead to considerable gains also in other regions such as South and East Asia or Latin America.

Figure 12.2 displays the scores for the three land sub-indicators by income group. With the possible exception of upper-middle-income countries, scores are lowest for management of state land, suggesting that, in the short term, improved mapping and demarcation together with processes for transferring state land for commercial use that are more transparent and rely on independent monitoring offer opportunities for significant gains. Given the increased scrutiny of supply chain governance by private sector institutions, especially financiers, such measures could provide opportunities to attract investment into the sector.

While low-income countries score reasonably well on equity and inclusion, they differ markedly from the rest in terms of coverage, quality and relevance of records. Recent technological improvements in IT and earth observation provide a basis for rapid improvement and leapfrogging in this area, ideally followed by state land registration.

### Coverage, relevance and currency of records for private land

Data from the *Doing Business* land administration quality indicator point towards a considerable

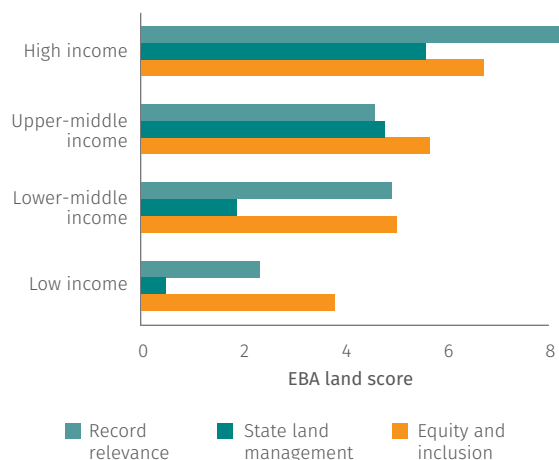
difference in coverage of land records, which is lowest for agricultural land in most countries. Figure 12.3 shows that, conditional on coverage, digitization of textual and spatial records can have high returns, especially for low-income countries. Less than 20% of sample countries in the low-income category have textual and spatial records digitized, limiting the scope for land data integration.

In many of the countries where coverage with digital records is low, paper records may either be outdated or overlap with each other, in which case they may provide little tenure security. In high-potential agricultural areas or urban settings, record digitization should be prioritized and combined with rigorous quality checking and, in case there are issues, a participatory low-cost process of systematic registration to update records and expand coverage, following the example of Rwanda. In rural areas with lower levels of agricultural potential, limited market activity and communal governance structures that are still functional, registration of individual plots may be neither desirable nor cost effective. Recording of community boundaries together with clarifying internal management structures and modalities for recording of land rights and transfers, may bring social and economic benefits by securing rights, providing the basis for negotiation with outsiders and allowing a transition towards more sophisticated systems as and when the need arises.

All the top performing countries have digitized and integrated textual records and cadastral maps as well as



**Figure 12.2 | Values of EBA land sub-indicators by countries' income group**



Source: EBA database.

**Figure 12.3 | EBA sub-scores for relevance of land records by countries' income group**



Source: EBA database.

mechanisms to ensure that material changes in rights are recorded, be it transfer of ownership via sale or inheritance or creation of a link to ensure that mortgages or a civil dispute involving a specific land parcel is automatically reflected in the registry. Alerting third parties of such changes minimizes the potential for fraud and obviates the need for costly and socially wasteful examination of rights by each party.

### State land management

Key indicators of the state land management quality (figure 12.4) point towards a considerable gap between high- and upper-middle-income countries and the rest in terms of the share of state land that is registered and mapped and the extent to which such records are publicly available. While all of the former have most of their state land mapped and most of them have such rights registered and maps publicly available, this is the case only for less than 20% of the lower-middle and low-income countries in the sample.

Similarly, stark differences emerge for the extent to which state land transfers are by public tender, key contract provisions are publicly available and compliance is monitored. Differences along these dimensions are likely to not only reduce prices received by the public but also land use efficiency on land subject to such transfers. It may also jeopardize countries' ability to attract investment by investors whose supply chains are subject to scrutiny either from customers or financiers.

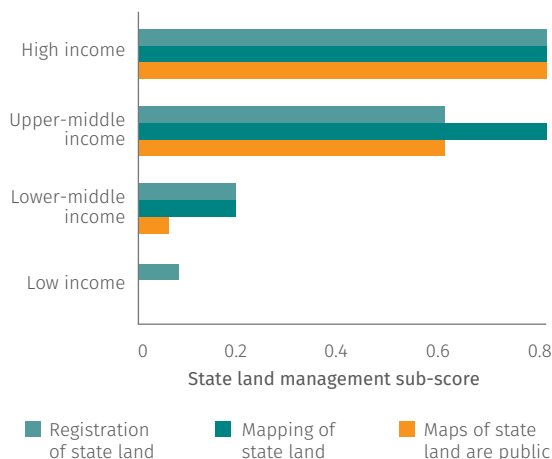
### Equity and inclusion

Figure 12.5 displays information on values for three key sub-scores under the equity and fairness sub-indicator, namely: (i) if there is gender-differentiated monitoring of land rights; (ii) whether registered and unregistered land are compensated equally (or all land is registered so that the question does not arise); and (iii) the expropriation process and, in particular, associated valuations can be contested.

Data suggest that in the low-income countries in the EBA 2017 sample, the scope of receiving compensation for unregistered land that is equal to what would be received for registered land is much lower, despite the fact that in such countries most land remains unregistered, the scope for market-based transfers for land acquisition is more limited and regulations often require expropriation of land to transfer it to investors.<sup>7</sup> Although a higher share of low- and lower-middle-income countries allows appeals against valuations, there is little administrative support for such appeals to be successful.

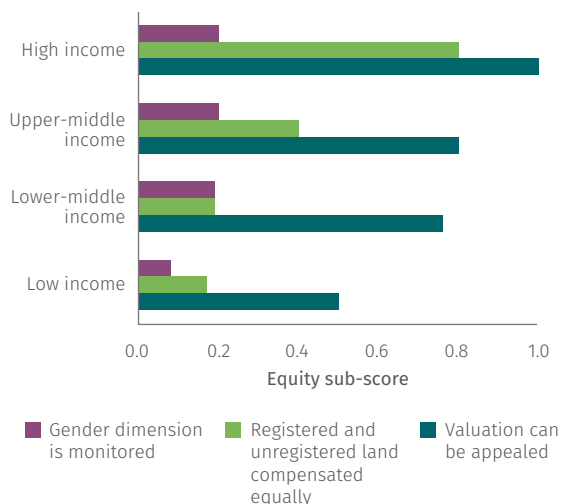
With economic development and expansion of opportunities for nonagricultural employment, opportunities for (long-term) land leasing will be important to ensure that rural areas allow (young) farmers with higher skills to expand and invest in more capital-intensive production methods. Leasing is also an important way for women to access land. Regulatory barriers to leasing or the high cost of entering into/registering

**Figure 12.4 | EBA sub-scores for quality of state land management by countries' income group**



Source: EBA database.

**Figure 12.5 | EBA sub-scores for equity by countries' income group**



Source: EBA database.

such transfers may prevent these transactions from happening. The incidence of leasing restrictions has been reduced and many countries report availability of standard leases to reduce the transaction cost of engaging in such transactions. Still, some changes go in the other direction; for example, Ukraine imposed a seven-year minimum duration for any lease to be registered. The ensuing immediate and massive drop in the number of registered leases, from more than 140,000 to some 30,000 per month, illustrates that regulation can set important repercussions.

## What are the regulatory good practices?

Good practice examples for each of the main areas of emphasis are provided in box 12.1 and some cases are described in more detail below.

### Registration of land rights and computerization of land registry information

Land tenure regularization in Rwanda illustrates the scope for combining modern technology and participatory processes and the multiple benefits from land registries. Following passage of the 2004/5 land policy and organic land law, a three-year pilot in 2007-10 on some 15,000 parcels helped design locally implementable low cost and participatory processes. This helped double the rate of investment in soil conservation while tripling it for female-headed households who suffered from higher insecurity. Land rights by legally married women improved, although those without marriage certificate were negatively affected,

an issue corrected before the national roll-out.<sup>8</sup> The refined process led to demarcation and registration of the country's 11.5 million parcels in less than three years at US\$ 6 per parcel,<sup>9</sup> improving investments in land and tree planting, females' tenure security and functioning of land rental markets.<sup>10</sup> The registry can be accessed online by Banks or local staff (via mobile phones) and viewed by investors; potential increments in urban residential land tax revenue due to having a complete register alone are more than sufficient to recoup the program cost in less than a decade.<sup>11</sup>

Focusing on communities allowed Mexico to regularize more than 60 mn. hectares in slightly more than a decade. A first step involved recognizing communities' legal personality and establishing mechanisms for internal self-governance (general assembly, executive, and an oversight committee). Once approved by the assembly, land registration then involved officials working with members to identify plot owners, resolving pending disputes in specifically created courts, and creating a map with boundaries of individual or communal plots for approval by the assembly that triggered issuance of certificates to all rights-holders. It enhanced productivity,<sup>12</sup> investment, economic and migration opportunities, especially for those with weak rights or lower endowments.<sup>13</sup>

Sequential computerization of land registration in the Indian state of Andhra Pradesh helped to make information on land rights accessible and thus increased mortgages by 18% and credit volume by 10.5%.<sup>14</sup>

## Box 12.1 | Good Practices for Land

	REGULATORY GOOD PRACTICES FOR LAND	SOME COUNTRIES WHICH IMPLEMENT THE PRACTICE
<b>COVERAGE, RELEVANCE, AND CURRENCY OF RECORDS FOR PRIVATE LAND</b>	Private land rights are registered and mapped for land owned individually or by groups.	MEXICO, RWANDA
	Textual and spatial records are maintained digitally and integrated, and can be easily accessed by all interested parties.	GEORGIA
	Mortgages and disputes pertaining to a land parcel are visible on the record and can be entered online by banks or the courts.	INDIA
<b>PUBLIC LAND MANAGEMENT</b>	State land is fully mapped and registered.	KOREA, REP., NETHERLANDS
	Encroachment is monitored regularly and actively.	DENMARK
	State land transfers for commercial use are by transparent public tender, and a field-based process is used to ascertain absence of competing land claims and obtain occupants' informed consent.	BRAZIL
	A list of state land transfers as well as key contractual provisions (for example, prices, expected use and land development plans) are public and independently monitored.	PERU
<b>EQUITY AND FAIRNESS</b>	Land ownership information is recorded by gender and regularly monitored.	VIETNAM
	Standardized contracts for land leasing are available and there are no specific restrictions on land leasing.	INDIA
	If not all land is registered, there is no difference in the compensation paid in case of acquisition between registered and unregistered land.	PERU

Source: EBA database.







## Public land management in Peru and Brazil

Peru shows that transparent public state land auctions can enhance transparency and efficiency of land use. Once the auction is initiated, the intention to divest the land and the terms of the bidding are published for at least 90 days. Bidders must prequalify by posting a bond of at least 60% of the minimum bid price plus intended investment. Auctions of 235,500 hectares brought almost \$50 million in investment to Peru's coastal regions over the last 15 years, generating large numbers of jobs and underpinning the country's emergence as a major force in high-value agro-exports.

To limit deforestation due to area expansion, Brazil's Forest code long required that, in environmentally sensitive areas, a certain share of each property be kept under forest, though impact remained limited to weak enforcement. A shift to satellite-based monitoring of land use changes together with local enforcement in 2004 was, in 2008, complemented with a decision to make preferential credit access conditional on demonstrated compliance with environmental norms. In 2005-09, this is estimated to have helped avoid 73,000 km<sup>2</sup> of deforestation.<sup>15</sup> In Brazil's Para state, use of such information by the private sector drove adoption of the environmental cadaster<sup>16</sup> and further reductions in deforestation.<sup>17</sup> As a result, a tripling of the Amazon's cattle herd and a six-fold increase of area planted to soy since 1990 was associated with a decline in deforestation to about one third of the 1990 level, effectively decoupling soy and beef production and deforestation.<sup>18</sup>

## Equity and inclusion through gender recording standard leases and regulations on expropriation

While Vietnam's 1993 Land Law made rights more secure by introducing Certificates to allow farmers to trade, transfer, rent, bequeath or mortgage land use rights with positive economic impact,<sup>19</sup> women were often left out partly because the nature of the forms. Regulation requiring two spaces implied that, by 2015, more than 70% of certificates were issued jointly, overcoming gender discrimination<sup>20</sup> and improving women's bargaining power and educational attainment of their children.<sup>21</sup>

Many Indian states historically imposed rent ceilings or outlawed leasing. But instead of benefit them as intended, this is driving tenants—often poor women—underground, making them more vulnerable, reducing productivity<sup>22</sup> and investment<sup>23</sup> and causing owners to leave large tracts of land idle. To address this, Government drafted model legislation and contracts that are being considered for implementation in several Indian states.<sup>24</sup>

Widespread past abuses of expropriation for political purposes led Peru to impose constitutional rules to limit expropriation to tightly defined public purpose. New regulations introduced to implement the rules require Congressional authorization for any expropriation and voiding it if the state is not the direct beneficiary or if land has not been transferred to the intended use within 24 months so that land reverts back to the original owner.<sup>25</sup>

## What are other areas of research?

**Group rights:** As a cost-effective way to cover large areas, group rights have long played a role to protect right to indigenous areas and significantly contribute to conserving natural resources.<sup>26</sup> Pilots all over the world to demarcate communal rights in a comprehensive participatory way are currently underway and the main issue is the extent to which results from such initiatives enjoy legal recognition. In fact, if regulations and laws are fashioned appropriately, there is scope for expanding such approaches to support comprehensive and cost-effective demarcation of the outer boundary of villages. If linked to adoption of clear approaches to within-group governance, this could be linked to mechanisms for internal management of rights to individual agricultural or house plots and avenues for greater formalization if and when the need arises. A highly policy relevant approach would be to identify the cost, in terms of time and motion, of acquiring a document to certify group rights on a demand-driven basis.

**Cost of conducting a survey:** High survey standards and anachronistic requirements open the door to discretion and increase the cost of conducting surveys, and constrains the scope for registry expansion and currency as it drives transactions underground. To address this, professionals have long recommended a “fit for purpose” approach to surveying as a measure that could provide enormous benefits, to improve coverage and reduce informality.<sup>27</sup> Working with professional associations to establish benchmarks that can then be pilot tested in a range of countries would have a high return and allow to address a key bottleneck.

**Linking to national parameters:** All the three indicator groups include elements that relate to national systems and are easy to assess. Doing so through the *Doing Business* registering property indicator, to be complemented with more specific assessment of aspects related to the agricultural sector, will greatly strengthen the ability to use EBA results for global comparison and in relevant policy dialogues.



Factory workers producing fresh fruit in Nsawan District, Ghana. Photo: Dominic Chavez/World Bank.

## Conclusion

The above discussion suggests that ways to make quick improvements differs somewhat between countries in the high- and low-income groups. The former can score quick wins by ensuring integration of textual and spatial elements of land records, making these available to economic actors and other government departments, ensuring that an appropriate regulatory framework allows different actors to harness benefits from this infrastructure, and closely monitor elements of its expansion, including the gender dimension.

By comparison, for most low- and lower-middle-income countries, enormous short-term advances can be made by improving the regulatory framework and associated

records for managing public land, ensuring equal treatment of women as well as owners of registered and non-registered land, and from moving existing land records to a digital platform to identify issues that need to be addressed to ensure transparency and explore opportunities for expansion in high potential areas to protect existing right holders, allow them to transfer their land to higher uses as appropriate, and provide investment incentives. Based on digitization of existing records and review of the regulatory framework, approaches to enhance coverage in a participatory and low-cost way can then be identified and carefully piloted, with the scope for larger roll-out in the medium term.



## NOTES

- 1 Goldstein and Udry 2008.
- 2 The difficulty of accessing land for enterprise development has emerged as one of the main complaints by private sector operators in a large number of enterprise surveys in African countries.
- 3 Kaganova and McKelar 2006.
- 4 Andolfatto 2002.
- 5 Tagliarino 2016.
- 6 Deininger and Xia 2016.
- 7 Deininger and Byerlee 2011.
- 8 Ali et al. 2014.
- 9 Nkurunziza 2015.
- 10 Ali et al. 2015.
- 11 Ali et al. 2016.
- 12 de Janvry et al. 2015.
- 13 Valsecchi 2014.
- 14 Deininger and Goyal 2012.
- 15 Assuncao et al. 2015.
- 16 Gibbs et al. 2016.
- 17 L'Roe et al. 2016.
- 18 Pacheco 2016.
- 19 Do and Iyer 2008.
- 20 Newman et al. 2015.
- 21 Menon et al. 2014.
- 22 Deininger et al. 2008.
- 23 Deininger et al. 2013.
- 24 Haque 2016.
- 25 Deininger et al. 2011.
- 26 Miranda et al. 2016.
- 27 Enemark et al. 2014.

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