

OVERVIEW

The 2007–08 boom in food prices and the subsequent period of relatively high and volatile prices reminded many import-dependent countries of their vulnerability to food insecurity and prompted them to seek opportunities to secure food supplies overseas. Together with the reduced attractiveness of other assets due to the financial crisis, the boom led to a “rediscovery” of the agricultural sector by different types of investors and a wave of interest in land acquisitions in developing countries. With little empirical data about the magnitude of this phenomenon, opinions about its implications are divided. Some see it as an opportunity to reverse long-standing underinvestment in agriculture that could allow land-abundant countries to gain access to better technology and more jobs for poor farmers and other rural citizens. If managed well, new investments in agriculture could help create the preconditions for sustained, broad-based development. Others say that an eagerness to attract investors in an environment where state capacity is weak, property rights ill-defined, and regulatory institutions starved of resources could lead to projects that fail to provide benefits, for example, because they are socially, technically, or financially nonviable. Such failure could result in conflict, environmental damage, and a resource curse that, although benefiting a few, could leave a legacy of inequality and resource degradation.

Without reliable information on large-scale investment, it is difficult to determine which of these positions is right or to advise countries on how to minimize the risks associated with such investments while capitalizing on any opportunities. This information is often not available to those affected, key decision makers, or the public. This report aims to overcome this information gap and provide

key data needed to facilitate an informed debate about large-scale land acquisition. Its main focus is analytical rather than normative, and its purpose fourfold:

- Use empirical evidence to inform governments in client countries, especially those with large amounts of land, as well as investors, development partners, and civil society, about what is happening on the ground.
- Put these events into context and assess their likely long-term impact by identifying global drivers of land supply and demand and highlight how country policies affect land use, household welfare, and distributional outcomes at the local level.
- Complement the focus on demand for land with a geographically referenced assessment of the supply side, that is, the availability of potentially suitable agricultural land.
- Outline options for different actors to minimize risks and capitalize on opportunities to contribute to poverty reduction and economic growth, especially in rural areas.

The World Bank recognizes that large-scale agricultural investment poses significant challenges that can be addressed successfully only if stakeholders collaborate effectively. Together with the Food and Agricultural Organization of the United Nations, International Fund for Agricultural Development, United Nations Conference on Trade and Development, and other partners, it has formulated seven principles that all involved should adhere to for investments to do no harm, be sustainable, and contribute to development. These principles are summarized in box 1.

The principles have already served a useful purpose in reminding countries and investors of their responsibilities and in drawing attention to situations where they were not adhered to. At the same time, countries need to take the lead and strategically determine what type of investment will help them to most effectively pursue their overall development goals. Better understanding of what is happening, the underlying factors, and ways in which key stakeholders can most effectively play their role will be critical to determine how these principles can be made operational in specific country contexts.

To provide an empirical basis that can help countries and other stakeholders to better understand and address the issue, we use a variety of methodological approaches and proceed in a number of steps.

- First, we use experiences of land expansion in Asia, Latin America and the Caribbean, Eastern Europe, and Sub-Saharan Africa to distill lessons that will be useful in light of predicted future commodity- and land-demand.
- Second, we assess the extent to which recent demand for land differs from earlier processes of area expansion and identify the challenges, in terms of land governance, institutional capacity, and communities' awareness of their rights, raised by this. To do so, we use a variety of sources ranging from

Box 1 Principles for Responsible Agro-Investment

- 1. Respecting land and resource rights.** Existing rights to land and associated natural resources are recognized and respected.
- 2. Ensuring food security.** Investments do not jeopardize food security but strengthen it.
- 3. Ensuring transparency, good governance, and a proper enabling environment.** Processes for acquiring land and other resources and then making associated investments are transparent and monitored, ensuring the accountability of all stakeholders within a proper legal, regulatory, and business environment.
- 4. Consultation and participation.** All those materially affected are consulted, and the agreements from consultations are recorded and enforced.
- 5. Responsible agro-investing.** Investors ensure that projects respect the rule of law, reflect industry best practice, are economically viable, and result in durable shared value.
- 6. Social sustainability.** Investments generate desirable social and distributional impacts and do not increase vulnerability.
- 7. Environmental sustainability.** Environmental impacts of a project are quantified and measures are taken to encourage sustainable resource use while minimizing and mitigating the risk and magnitude of negative impacts.

intended land acquisitions as reported by the media to official country data and project case studies.

- Third, to properly frame the issue and allow it to be included in countries' development policies, we determine the agricultural potential for land—whether currently cultivated or not—to provide a basis for quantifying the gap between actual and potential yields by current producers, the amount of land that could be available for area expansion, and where investor interest may actually materialize.
- Fourth, we compare countries' policy, legal, and institutional frameworks to help identify good practice in a variety of country contexts to assist countries confronted with this issue in providing a response that will minimize risks and allow them to utilize available opportunities.
- Finally, based on the notion that the scale and nature of the phenomenon require different stakeholders to each contribute their share, we discuss the areas where governments, the private sector, civil society, and international organizations are challenged to contribute.

CROPLAND EXPANSION: DRIVERS, UNDERLYING FACTORS, AND EXPECTED IMPACTS

Large-scale expansion of crop land is not new. From 1990–2007, the land cultivated expanded by 1.9 million hectares (ha) per year, for a total of some

1.5 billion ha cultivated globally. Declines in industrialized and transition countries (–2.1 million and –1.3 million ha, respectively) were more than outweighed by increases of 5.5 million ha per year in developing countries. Cropland expansion, which would have been much larger without productivity increases, was concentrated in Sub-Saharan Africa, Latin America and the Caribbean, and Southeast Asia. Key commodities driving this expansion were vegetable oils, sugarcane, rice, maize, and plantation forests. In addition to overall increases in commodity demand attributable to population and income growth and biofuel mandates, greater trade led to shifts of production to developing countries with high productive potential. For example, since 1990, soybean yields in Latin America increased at twice the U.S. rate from a much lower base, and the yield of fast-growing trees for wood and pulp in South America is three to four times the level that can be achieved in Europe or the United States. By contrast, agricultural area with sufficient amounts of water has not grown much or even shrunk in most countries of the Middle East and North Africa and in China and India.

Expansion of cultivated area seems unlikely to slow. Population growth, rising incomes, and urbanization will continue to drive demand growth for some food products, especially oilseed and livestock, and related demands for feed and industrial products. A conservative estimate is that, in developing countries, 6 million ha of additional land will be brought into production each year to 2030. Two-thirds of this expansion will be in Sub-Saharan Africa and Latin America, where potential farmland is most plentiful. At the same time, in many countries that are of interest to investors productivity on currently cultivated land is only a fraction of what could be achieved. Concerted efforts to allow existing cultivators to close yield gaps and make more effective use of the resources at their disposal could thus slow land expansion sharply while creating huge benefits for existing farmers.

Because investment to expand cultivated area is not a new phenomenon, it is important to draw lessons from past experience. Even a cursory review of recent land expansion across regions highlights the associated environmental and social risks, shows that country policies have an important impact on outcomes, and points to a need for new approaches involving all stakeholders to help achieve sustainable outcomes.

In *Latin America and the Caribbean*, different processes of land expansion can be distinguished with mixed results. The best known is forest clearing for extensive livestock ranching and establishing land rights in the Amazon basin. Net impacts were often negative as most of the land deforested was not put to productive use. A second process was the expansion of soybeans and other crops in the *cerrado* (savanna) region of Brazil, based on public investment in research and development (R&D) that allowed cultivation of acid soils previously unsuitable for agriculture, use of appropriate varieties, and adoption of conservation tillage. While this was a major technological success, direct impacts on rural poverty were reduced because capital subsidies encouraged

more highly mechanized forms of cultivation. Public and private sector players in Brazil and neighboring countries now recognize that agricultural investment and expansion pose serious environmental challenges and that action will be needed to reduce detrimental impacts. These actions include rehabilitation of degraded lands, stricter enforcement and monitoring of “legal reserves” (minimum levels of forested areas on agricultural properties), better delineation of protected areas, and environmental zoning. In Peru’s Pacific Coast,¹ auctions of 235,500 ha of public land brought in almost US\$50 million in investment over the past 15 years, generating large numbers of jobs and underpinning the country’s emergence as a major force in high-value agro-exports (see box 2).

In *Southeast Asia*, area expansion has been pronounced for oil palm, generally under large estates, often with smallholders attached to them in Indonesia and Malaysia. Rice cultivation, entirely based on smallholders, has also expanded significantly in countries such as Thailand and Vietnam. The oil palm industry has grown rapidly in response to global demand, high returns to investment, and low labor costs. In Indonesia, planted area more than doubled from about 2.9 million ha in 1997 to 6.3 million ha in 2007, with significant smallholder participation and creation of an estimated 1.7 million to 3 million jobs. In response to policies that aimed to foster development of the industry by giving away land (and the trees on it) for free, large areas with high biodiversity value have been deforested without ever having been planted with oil palm.

Box 2 Using Auctions to Transfer Public Land in Peru’s Coastal Region

Peru uses a public auction mechanism to divest public lands for investment. The government first regularizes any land rights to determine if anyone has claims to it that may need to be respected. This also enables the government to determine what types of rights are eligible for transfer.

When the government initiates the auction, the intention to divest the land and the terms of the bidding are published publicly for at least 90 days. Bidders must prequalify for the auction by posting a bond of at least 60 percent of the minimum bid price plus the intended amount of investment. The successful bidder must deposit the land payment and a letter of credit covering the proposed investment amount with the government.

Where an investor expresses interest in public land, the investor is required to present a business plan to a board of public and private sector specialists. If the project is considered viable, the proposal is published for at least 90 days to allow other investors to present offers. If any investor comes forward, the public bidding process above is initiated. If no other investor shows interest, the initial investor can proceed.

This has given rise to concerns about oil palm expansion contributing to the loss of biodiversity, greenhouse gas emissions, and social conflict due to a failure to recognize local land rights. With expected further increases in palm oil demand, directing plantation expansion away from standing forest toward degraded grassland areas will be important. Estimates suggest that the area available under these degraded areas is at least double what is needed to satisfy increased demand over the next decade. A number of economically viable options to use these areas are available, most importantly the use of payments for environmental services and REDD (United Nations Collaborative Program on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries) to improve incentives for establishing oil palm on degraded rather than forest land. Applying these mechanisms successfully, however, requires that the rights of existing occupants on degraded lands be identified and compensated.

Thailand and Vietnam have clarified property rights and used public investment to provide smallholders with access to technology. The small and medium farmer-driven expansion of rice exports—and subsequently exports of other commodities with higher value added—in these countries indicates that these policies had a major impact on poverty reduction and gradual increases of farm size as nonagricultural growth accelerated as well. It also illustrates that increases in production are by no means contingent on large-scale land acquisition. In fact, in the rubber sector, production has shifted primarily from large plantations to smallholders. Some countries, such as Cambodia, with relatively abundant land resources but production based mainly on smallholders, have more recently also tried to attract outside investment with mixed success.

In most of Africa, area expansion has been based on smallholder agriculture in the context of population growth.² While countries on the continent range from very land scarce (such as Malawi and Rwanda) to relatively land abundant (such as the Democratic Republic of Congo, Tanzania, and Zambia), large-scale investment has been limited. A key reason for this was that policy distortions against agriculture, especially exports and low public investment in rural areas, have reduced investment incentives, thus limiting the development of Africa's agricultural potential. Elimination of many of these policy interventions over the past two decades has allowed agricultural growth to accelerate and paved the way for renewed investor interest in the continent. Even so, many attempts to jump-start agricultural growth through large-scale farming, as in Sudan, Tanzania, and Zambia, were largely unsuccessful. In some of these, neglect of existing rights prompted conflict over land and further undermined investment incentives. Associated negative impacts were made worse by poor technology and management.

Also, structural issues arising from this long-standing neglect of technology, infrastructure, and institutions continue to limit competitiveness. In many

cases, they contributed to disappointing performance of commercial cultivation of bulk commodities, where Sub-Saharan Africa can have a comparative advantage. Instead, success with export agriculture was limited to higher-value crops, such as cotton, cocoa, coffee, and more recently horticulture. At the same time, such gaps also affect smallholder performance. In fact, none of the Sub-Saharan African countries (for example, Mozambique, Sudan, Madagascar, or Zambia) that recently attracted investor interest achieved more than 25 percent of potential yields, and area cultivated per rural inhabitant remains well below 1 ha. If technology, infrastructure, and institutions can be improved, higher global demand for agricultural commodities can bring large benefits to existing producers and countries. The challenge for public and private sector is to identify ways to address these challenges effectively in a way that provides local benefits.

Eastern Europe and Central Asia represents a unique situation, where investments in very large farms contrast with an overall contraction of agricultural land use. In the Russian Federation, Ukraine, and Kazakhstan, the area sown to grains has declined by 30 million ha since the end of the Soviet era. These croplands were mostly returned to pastures or fallow, due to lack of suitable technology and market access. Large farms were better able to deal with financing, infrastructure, and technology constraints of the transition, leading to considerable concentration. For example, the 70 largest producers in Russia and Ukraine control more than 10 million ha. They have been a key driver of increases in grain production in Russia, Ukraine, and Kazakhstan, the region's three most land-abundant countries. There remains considerable scope for improving technology to increase yields.

In general, given the large differences in labor intensity across crops, the social and equity implications of cropland expansion will depend on the type of crop grown and the way production is organized. Except for plantation crops, agricultural production across the globe has historically been managed by owner-operated farms, with increases in farm sizes largely driven by rising non-agricultural wages. Recent developments in technology—such as zero tillage, pest resistant varieties, and information technology—made it easier to manage large farms. But true “superfarms” emerged only where vertical integration of operations well beyond the production stage allowed large firms to better overcome the obstacles created by imperfections in other factor markets, especially marketing and access to finance. Owner-operated farms, linked to processors and exporters via contracts or other forms of productive partnerships (including producer organizations), will therefore continue to be a key pillar of rural development.

ARE RECENT PROCESSES OF LAND ACQUISITION DIFFERENT FROM PAST ONES?

Countries attracting investor interest include those that are land abundant and those with weak land governance. The 2008 commodity boom dramatically

increased interest in agricultural land as a potential investment, especially in Sub-Saharan Africa. According to press reports, foreign investors expressed interest in around 56 million ha of land globally in less than a year. Of these, around two-thirds (29 million ha) were in Sub-Saharan Africa. Countries with fairly abundant nonforested, noncultivated land with agricultural potential attracted more interest. However, countries with poorer records of formally recognized rural land tenure also attracted interest, raising a real concern about the ability of local institutions to protect vulnerable groups from losing land on which they have legitimate, if not formally recognized, claims. Especially in these countries, public disclosure, broad access to information on existing deals, and vigilant civil society monitoring are needed, along with other efforts to improve land governance, including the overall policy, legal, and regulatory framework for large-scale land acquisition. Moreover, actual farming has so far started on only 20 percent of the announced deals, indicating that there is a large gap between plans and implementation, and ways to transfer land from nonviable enterprises to more capable entrepreneurs may be needed in the future.

Inventory data on land acquisitions highlight the role of policies and domestic players, as well as the limited benefits attained to date. Data from official registries in 14 countries³ suggest that policies influence the size and nature of large-scale land transfers, whether by lease or by sale. In Tanzania, where land rights are firmly vested with villages, less than 50,000 ha were transferred to investors between January 2004 and June 2009. By contrast, over the same period in Mozambique, 2.7 million were transferred. But a 2009 land audit found that some 50 percent of this transferred land was unused or not fully used. Total transfers between 2004 and 2008 amounted to 4.0 million ha in Sudan, 2.7 million in Mozambique, 1.6 million in Liberia (although many were renegotiations of existing agreements), and 1.2 million in Ethiopia (table 1). Virtually everywhere, local investors, rather than foreign ones, were dominant players. Moreover, in most cases, the expected job creation and net investment were very low.

Data from country inventories highlight serious weaknesses in institutional capacity and management of land information. In many countries where demand has recently increased, limited screening of proposals, project approvals without due diligence, rivalries among institutions with overlapping responsibilities, and an air of secrecy all create an environment conducive to weak governance. Official records on land acquisitions are often incomplete, and neglect of social and environmental norms is widespread. All this implies a danger of a “race to the bottom” to attract investors. Deficient processes for local consultation and unclear boundary descriptions create several problems: they reduce tenure security and investment incentives, increase the likelihood of conflict, and make it difficult for the public sector to collect land taxes and monitor whether investors comply with agreements they had entered into with local people.

Table 1 Large Land Acquisitions in Select Countries

Country	Projects	Area (1,000 ha)	Median size (ha)	Domestic share ^a
Cambodia	61	958	8,985	70
Ethiopia	406	1,190	700	49
Liberia	17	1,602	59,374	7
Mozambique	405	2,670	2,225	53
Nigeria	115	793	1,500	97
Sudan	132	3,965	7,980	78

Source: Country project inventories collected for this study.

Note: Data are for the 2004–09 period except for Cambodia and Nigeria where they cover 1990–2006. Liberian figures refer to renegotiation of concessions that had been awarded much earlier.

a. Domestic share is the proportion of the total transferred area allocated to domestic investors (vs. foreign investors) rather than the share of the number of investments.

Case studies confirm widespread concern about the risks associated with large-scale investments, including the following:

- Weak land governance and a failure to recognize, protect, or—if a voluntary transfer can be agreed upon—properly compensate local communities’ land rights
- Lack of country capacity to process and manage large-scale investments, including inclusive and participatory consultations that result in clear and enforceable agreements
- Investor proposals that were insufficiently elaborated, nonviable technically, or inconsistent with local visions and national plans for development, in some cases leading investors to encroach on local lands to make ends meet
- Resource conflict with negative distributional and gender effects.

In many of the case studies, progress with implementation was well behind schedule. As a result, local people had often suffered asset losses but received few or none of the promised benefits. Yet field visits by local collaborators also found that investments can provide benefits through four channels: (i) supporting social infrastructure, often through community development funds using land compensation; (ii) generating employment; (iii) providing access to markets and technology for local producers; and (iv) higher local or national tax revenue. If investments generated profits, social impacts depended not only on the magnitude of benefits, but also on the mix of different types of benefits. For example, entrepreneurial and skilled people could gain from jobs created by an investment, while vulnerable groups or women lost access to livelihood

resources without being compensated. This illustrates the importance of clearly addressing distributional issues upfront.

TOWARD A COUNTRY TYPOLOGY—LINKING ENDOWMENTS AND EQUITY EFFECTS

The potential global supply of land suitable for rainfed cultivation is concentrated in a limited number of countries, mainly in Sub-Saharan Africa, Latin America and the Caribbean, and Eastern Europe and Central Asia. Complementing the focus on land demand with spatially referenced information on potential supply can provide valuable information for stakeholders in a number of respects. First, participatory mapping of potentially suitable land can help local communities and governments identify areas where investor interest may materialize. Second, in anticipation of potential demand, countries can initiate priority measures to secure local property rights and educate local people. This can help steer investors away from fragile or low-potential areas where investment could cause environmental damage and disruption to local livelihoods. Third, information on productive capacity and land values from such an exercise can help local communities appreciate alternative options for using their land and guide them towards a fair value for land transfers.

Globally, more than half of land that could potentially be used for expansion of cultivated area is in ten countries, of which five are in Africa. The currently noncultivated area suitable for cropping that is nonforested, nonprotected, and populated with less than 25 persons/km² (or 20 ha/household) amounts to 446 million ha (table 2). This is equivalent to almost a third of globally

Table 2 Potential Availability of Uncultivated Land in Different Regions

	Total area (1,000 ha)	Share of land with travel time to market (%)	
		< 6 hours	> 6 hours
Sub-Saharan Africa	201,546	47	53
Latin America and the Caribbean	123,342	76	24
Eastern Europe and Central Asia	52,387	83	17
East and South Asia	14,341	23	77
Middle East and North Africa	3,043	87	13
Rest of world	50,971	48	52
Total	445,624	59	41

Source: Fischer and Shah 2010.

Note: Data identify uncultivated land with high agro-ecological potential in areas with population density of less than 25 persons/km².

cropped land (1.5 billion ha). More than half of this area is in ten countries, six of which (Sudan, the Democratic Republic of Congo, Mozambique, Madagascar, Chad, Zambia) are in Africa. But relatively more land in Africa is located far from infrastructure.

Classifying countries by the availability of land for rainfed cultivation and the share of potential output achieved on areas currently cultivated (the yield gap) can provide input into planning and help identify options, including providing incentives to existing small-scale producers to use development of land to contribute to countries' overall development. Figure 1 illustrates this relationship for a select sample of countries by plotting relative land availability compared to currently cultivated area (in logs) against the potential for increasing yields.

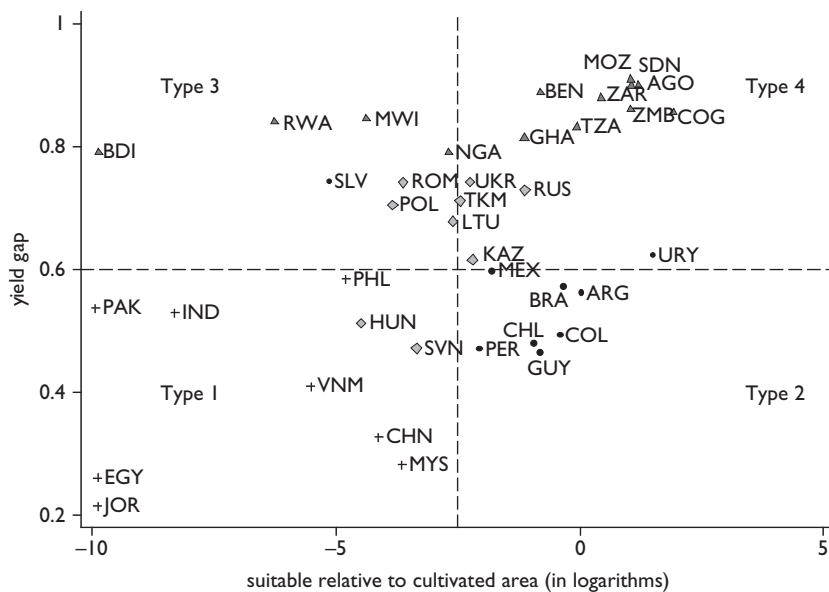
In many countries, both those with and without land available for expansion, there is large scope to increase productivity on currently cultivated land, something that could have major impacts on poverty. Broadly, countries with relatively little or no available additional suitable land for cultivation (for example, Burundi, the Arab Republic of Egypt, India, Malawi, and Rwanda) are on the left half of the graph, and those with relatively more land (for example, Argentina, Brazil, Russia, Sudan, Uruguay, and Zambia) are on the right. Countries also vary widely in the extent to which they realize potential yields. Large gaps in productivity, with current farmers achieving less than 30 percent of potential yields—as found in most of Sub-Saharan Africa—point to deficiencies in technology, capital markets, infrastructure, or public institutions, including property rights. In countries with large amounts of suitable land currently not cultivated, area expansion will have little developmental impact if it fails to address the factors that underlie such widespread failure to make full use of the productive potential of currently cultivated land. Careful analysis of these factors as part of a broader country-level agricultural and rural development strategy that identifies a proper space for private investment can help realize this potential by attracting investment that will also help existing smallholders realize the productive potential of their land.

At the global level, the typology can be used to classify countries into four types corresponding to the quadrants in figure 1.

Type 1: Little land for expansion, low yield gap: This group includes some countries in Asia, Western Europe, and the Middle East with high population density and limited land suitable for rainfed cultivation. Agricultural growth has been, and will continue to be, led by highly productive smallholder sectors that may shrink as nonagricultural employment grows. Investors increasingly provide capital, technology, and access to markets through contract farming to meet demand for high value products. As countries reach the stage of declining agricultural population due to rural-urban migration, land consolidation facilitated by efficient land markets will gradually increase farm size.

Type 2: Suitable land available, low yield gap: This group includes countries, mainly in Latin America, where land is fairly abundant and technology is

Figure 1 Potential Land Availability vs. Potential for Increasing Yields



Source: Authors based on Fischer and Shah 2010.

advanced, often a result of past investment in technology, human capital, and infrastructure. Here, savvy investors have recently exploited opportunities for area expansion. A proper regulatory role by the public sector is needed to ensure that areas with high social or environmental value are protected and to provide the basis for well-functioning factor markets, especially land markets.

Type 3: Little land available, high yield gap: This group includes many densely populated developing countries. While little additional land is available, yields far below potential lock many smallholders in poverty. Especially given limited scope for nonagricultural development to absorb labor in the short run, increasing agricultural productivity will be critical for poverty reduction. This will require public investment in technology, infrastructure, and market development to raise smallholder productivity. Private investment through contract farming can promote diversification into high value and export markets.

But the limited availability of nonagricultural employment implies that potential productivity benefits from large-scale mechanized farming are likely to be outweighed by undesirable social and equity effects. Care is thus needed to protect property rights and ensure that other markets work well to prevent large-scale land acquisitions from pushing people off the land. The situation is

different if incomes and employment in the nonagricultural sector grow rapidly, land markets are working well, and population growth is low. This situation prevails in parts of Eastern Europe, where movement of the rural population out of agriculture creates scope for land consolidation and a transition to larger operational units.

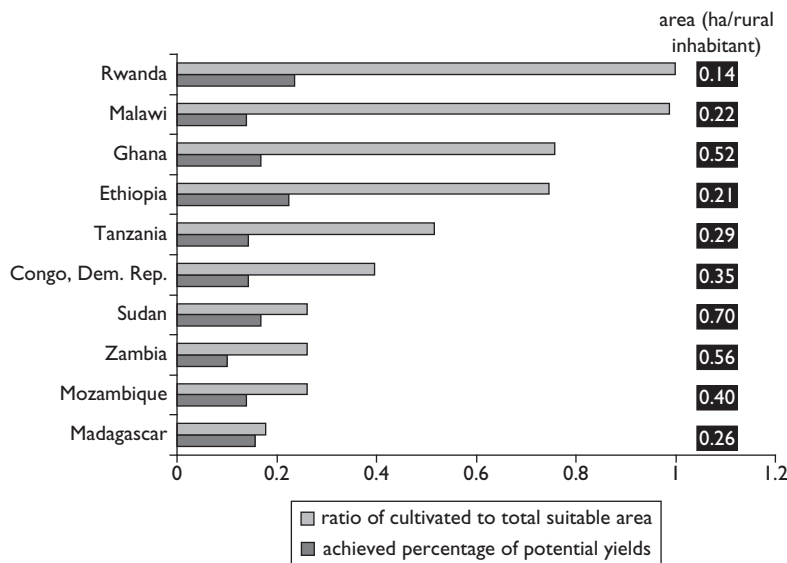
Type 4: Suitable land available, high yield gap: This group includes countries with large tracts of suitable land, but also a large proportion of smallholders with very low productivity. If labor supply constrains smallholder expansion and in-migration is limited, larger farm sizes enabled through mechanization could be a viable strategy. This situation could create opportunities for outside investors. The public sector needs to establish the institutional framework and provide complementary infrastructure as well as information on business models and contractual arrangements to maximize spillovers and local multipliers.

Commodity-level analysis illustrates the size of opportunities and the importance of technology. In many African countries with large amounts of suitable but currently uncultivated land, transfers of technology could provide large benefits to local populations. To reduce risks and increase benefits, greater effort will be needed to identify local comparative advantage, assess the technical viability of proposed investments, improve weak institutional frameworks for land governance, and level the playing field for smallholder competitiveness.

A closer look at the underlying data (yield gap, availability of uncultivated area, and area cultivated per rural inhabitant as a proxy for farm size) for some countries in Sub-Saharan Africa and Latin America and the Caribbean points to large variations even within regions. Sub-Saharan African countries differ widely in the availability of suitable area—from Rwanda and Malawi, where virtually all the suitable land is cultivated, to Mozambique, Sudan, and Zambia, where vast tracts of suitable nonforested and unprotected land are not cultivated (figure 2). None of these countries cultivate more than about one ha of land per rural person or attain more than 25 percent of potential output. This suggests that other constraints prevent farmers from making the most effective use of available land. Understanding these constraints and identifying ways to address them will be critical to identifying the types of investments that could best help reduce poverty. Identifying constraints should precede efforts to attract outside investors. As in most countries the area already cultivated exceeds the amount of suitable land that could still be brought under production, addressing these constraints could also lead to output increases much greater than would be possible by expanding cultivated area without improving productivity.

Whether and how land is transferred to investors will have potentially far-reaching impacts on the dynamics of farm size distribution. Projections of future population growth and the scope for employment generation in

Figure 2 Yield Gap, Availability of Uncultivated Land, and Area Cultivated per Rural Inhabitant, Selected Countries in Sub-Saharan Africa

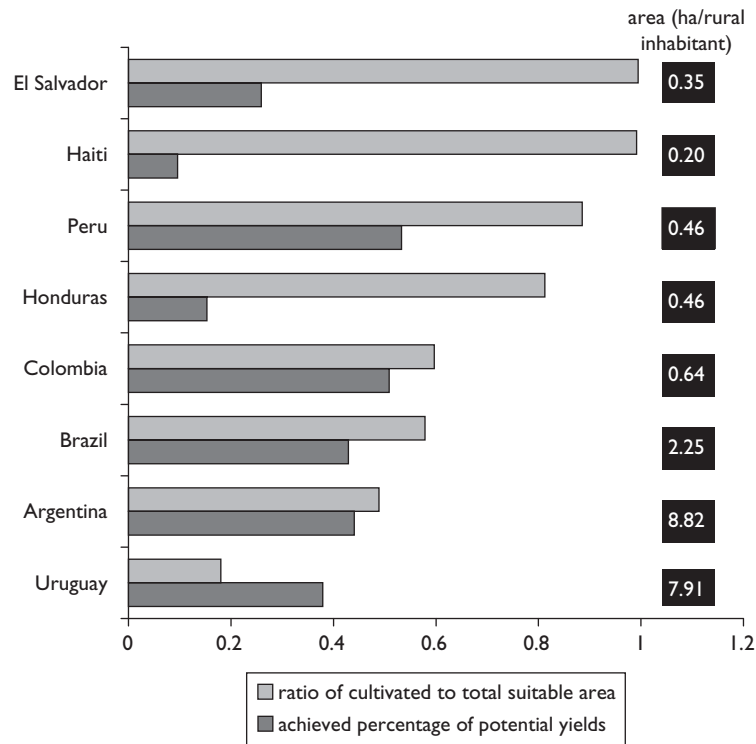


Source: Authors based on Fischer and Shah 2010.

the nonagricultural economy would be useful to trace out options for the evolution of farm sizes. Land-abundant Sub-Saharan African countries have a choice between establishing an agricultural sector founded on broad-based ownership of medium-size farms (much larger than those currently operated and expanding over time) or a dual structure where a few mega farms coexist with many small producers. Given the long-term impacts associated with such choices, clear elaboration of the issues in an informed public debate about the development paths open to a country is needed.

In contrast to Sub-Saharan Africa, Latin America is characterized by greater variation in availability of area for expansion, yield gaps, and area cultivated per rural individual (figure 3). Area cultivated per rural inhabitant ranges from 0.2 ha in Haiti to 8.8 ha in Argentina. Some countries in the region, such as Argentina, Brazil, and Uruguay, combine large areas for expansion with other factors attractive to potential investors. These include high levels of technology and human capital, competitive land markets, and a supportive investment climate. The Latin American experience can provide valuable lessons for countries where demand for land has emerged more recently. South-South exchanges to understand what influences investor choices between locations would be useful for countries to develop incentives that will prevent them from attracting investments that are poorly conceived or unable to compete in countries with more mature land markets.

Figure 3 Yield Gap, Availability of Uncultivated Area, and Area Cultivated per Rural Inhabitant for Selected Countries in Latin America and the Caribbean



Source: Authors' calculations based on Fischer and Shah 2010.

THE POLICY, LEGAL, AND INSTITUTIONAL FRAMEWORKS

Variation in legal and institutional frameworks is wide. This is especially true regarding the extent to which property rights are recognized, and the openness, capacity, and coordination of different public institutions responsible for guiding investment and ensuring compliance with regulations. Five areas are relevant.

Rights Recognition

Rights to land and natural resources need to be recognized, clearly defined, identifiable on the ground, and enforceable at low cost. These include rights to lands managed in common areas, state lands, and protected areas. This is to ensure that local people benefit from investments, and that investors enjoy tenure security that encourages them to make long-term investments. There

are now many examples of cases where relatively land-abundant countries have improved their legal and regulatory framework to recognize customary rights and allow their registration. Low-cost and participatory tools to do so, either at individual or group level without eliminating secondary rights, have been applied successfully in cases such as Ethiopia, Mexico, and Vietnam with positive impact. They demonstrate that, if transparent and accountable structures can be relied upon, registration at group level can be a cost-effective way to protect rights over large areas quickly, greatly empowering rights holders.

Voluntary Transfers

Transfers of land rights should be based on users' voluntary and informed agreement, provide them with a fair level of proceeds, and should not involve expropriation for private purposes. To create these preconditions, local people need to be aware of their rights, the value of their land, and ways to contract, and have assistance in analyzing investment proposals, negotiating with investors, monitoring performance, and ensuring compliance. Compensation may occur in several ways, either through the provision of equivalent land, the setting up of a community fund to provide public services, an equity stake in the investment, or monetary transfers (including the payment of a land rent). To provide a basis for negotiation of a fair level of compensation, it is necessary to be able to assess the value of the land used by the investor.

Transparency

To effectively perform their respective functions, all stakeholders, in particular, governments, need access to accurate and up-to-date information on opportunities, actual transfers, and the technical and economic impact of large investments. In many cases, lack of such information makes it difficult to identify and utilize opportunities, ensure a level playing field, and enforce regulation and contracts properly. Investors unaware of the location of high potential land that current owners might be willing to transfer may design projects that are ultimately not viable or, if institutions are weak, that could cause great damage. Communities that have not been educated about their rights or potential land values will be less likely to anticipate and contest investments that are not sustainable or may lead to conflict. Weak or non-existent information on project performance or technical parameters imposes costs on all parties and makes it difficult to quickly restructure or liquidate investments that are underperforming or that violate environmental and social safeguards.

Information on prices, contracts, rights, and, ideally, on land use plans should thus be publicly available to help local people to monitor performance of investments and public institutions to properly do their job. Information on land use, existing rights, and land suitability will allow governments to devise strategies and revise them during implementation. The availability of these

types of information will also be useful to investors who want to know what approaches and technologies have or have not worked in the past. Public availability of information on rights and written agreements will help communities and civil society to ensure that contracts are enforced and promises kept. A clear format in which information is reported, accessed, and used can help to move toward this goal and thus shape regulation, assess performance, and encourage policy debate.

Technical and Economic Viability

For investments to provide local benefits, mechanisms need to be in place ensuring technical and economic viability, consistency with local land use plans and taxation regimes, and transfers of assets from nonviable projects. This should also include the scope for investment and associated land governance issues in countries' broader development strategies that identify areas or crops where investment can provide the highest benefits based on agro-ecological endowments and existing land use intensity. This information can then be used to establish parameters and minimum criteria for investor applications. This exercise could be combined with mapping and documenting existing rights on a systematic basis, as well as educating local populations on how to manage their land most effectively. This will allow proper measures to be taken to scrutinize each project's technical viability, including reviews by private sector experts or practitioners engaged in large-scale farming elsewhere. These procedures should include a competitive and incentive-based approval process that involves an up-front declaration of projected capital investment and job generation. There is a need to improve the public sector's capacity for processing investments by reducing red tape and ensuring that incentives, if deemed necessary, are fair, free of distortions, and administered transparently.

Environmental and Social Sustainability

Even investments that are highly profitable for an investor will generate sustainable social benefits only if they are not associated with environmental externalities or undesirable social and distributional changes within or beyond the immediate project area. Ideally, investors should take these considerations into account on their own in the context of project preparation. However, experience indicates that this is often not the case and that therefore a regulatory framework to ensure such negative effects do not outweigh potential benefits will be essential. In particular, areas not suitable for expansion need to be protected from encroachment and any indigenous or other rights on them respected. Environmental norms need to be clearly defined and compliance with them monitored, with ways for recourse in case of non-compliance. Large investments will also need to consider social impacts in advance and make relevant information on potential impacts available to stakeholders in order to allow informed decisions.

CONCLUSION: MOVING FROM CHALLENGE TO OPPORTUNITY

The earlier evidence suggests that large-scale expansion of cultivated area poses significant risks, especially if not well managed. As the countries in question often have sizable agricultural sectors with many rural poor, better access to technology and markets, as well as improved institutions to improve productivity on existing land and help judiciously expand cultivated area, could have big poverty impacts. Case studies illustrate that in many instances outside investors have been unable to realize this potential, instead contributing to loss of livelihoods. Problems have included displacement of local people from their land without proper compensation, land being given away well below its potential value, approval of projects that were only feasible because of additional subsidies, generation of negative environmental or social externalities, or encroachment on areas not transferred to the investor to make a poorly performing project economically viable.

Many countries with large amounts of currently uncultivated land suitable for cultivation also have large gaps between potential and actual yields. Thus, even without any expansion of cultivated area, large increases in output and welfare for the poorest groups could be possible through efforts to enable existing farmers to use currently cultivated land more productively. The associated need for investments in technology, infrastructure, market access, and institutions all suggest that private investors can contribute in many ways, not all of which require land acquisition. Especially in countries with large amounts of currently noncultivated land with potential for rainfed cultivation and a large yield gap, ways to better utilize existing endowments and help producers move closer to realizing their potential will need to be part of a long-term strategy. Often this can be through partnerships between the public and private sector.

To counter the negative outcomes that can result from participants being ill-informed, all involved will need to contribute to better information access and land and water governance. This requires making information on deals, land availability, and future plans accessible to all interested parties and using such information as an input into analysis and policy advice. Exploring options for doing so and drawing on lessons from other sectors or initiatives could help move in this direction and avoid doing harm by shedding light on these important issues. More immediately, using information on recent and proposed land transfers available at the project level could also help promote more effective monitoring of performance and continued feedback to decision makers in the public and private sectors. This information could help them make more informed decisions so that the opportunities opened up by increased global interest in land and agriculture can benefit local people and reduce poverty.

Governments can help to promote this agenda by identifying strategic priorities to assess ways to bring productivity closer to the potential and to identify whether, given available resources and necessary trade-offs, large-scale

investment could help generate employment, improve food security, and foster technology transfer and local development. Based on an assessment of agro-ecological potential, this can include identification of public infrastructure or technology investments that could complement private sector efforts through a participatory process of land use planning. Such a process would also provide valuable information to landholders when deciding whether they want to transfer land to investors. It will require informing and educating communities, ideally through a participatory dialogue that includes all stakeholders and draws on lessons from global experience.

Even if large-scale land acquisition is not a desirable option, it will, in many cases, be necessary to improve land governance to ensure that the pressures from higher land values do not lead to dispossession of existing rights. To ensure that existing rights are protected and a level playing field exists to make voluntary transfers feasible, three priority areas need to be covered. First, have state land identified geographically and ensure that mechanisms for its management, acquisition, and divestiture, as well as the imposition of land use restrictions, are transparent and justified. Second, make information on land rights that is complete and current available to all interested parties in a cost-effective manner. Finally, ensure that accessible mechanisms for dispute resolution and conflict management are in place.

If large-scale investment and land transfers are part of a country's strategy, actions will be needed to improve the capacity of government institutions to administer and manage large-scale land transfers. This must also entail learning from experience through a variety of mechanisms, including an audit of existing contracts. Such analyses could provide guidance on appropriate regulations and standards, environmental safeguards, and ways to ensure that approved investments are economically viable and that they generate local benefits. Capacity building is required to accomplish the following:

- Establish effective consultation that enables representative participation, provides relevant information, records reservations and decisions, and develops an agreed approach to monitoring and remedies.
- Streamline and review institutional responsibilities to strengthen coordination between agencies and their capacity to develop and monitor transparent land transfer mechanisms, as well as design environmental and social assessments.
- Develop more open modalities of land acquisition including, for example, an auction model.
- Strengthen records management including, for example, developing and maintaining an inventory of state land and transfers in a central database—a task that can be conducted at lower cost with the benefit of new technologies.
- Ensure proper technical review and screening of proposed projects as part of due diligence. There is also scope for review and possibly refinement of

incentives for investors to promote positive outcomes—examples include encouraging investment in areas where land rights have been clarified or infrastructure is in place, or offering tax holidays only after certain milestones are achieved.

Responsible investors interested in the long-term viability of their investments realize that adherence to a set of basic principles is in their best interest; many have committed to doing so under a range of initiatives, including ones with a governance structure incorporating civil society and governments. Expansion of membership and scope of these initiatives is desirable. At the same time, there is an urgent need to make such principles operational, disseminate good practice, and provide feedback to public sector officials. This needs to be combined with effective disclosure mechanisms, including third-party verification and ways to ensure compliance. Translating practices adopted by industry leaders into regulations could help to quickly improve performance on the ground.

Civil society and local government can build critical links to local communities in three ways: educating communities about effectively exercising their rights; assisting in the design, negotiation, implementation, and monitoring of investment projects where requested; and acting as watchdogs to critically review projects and publicize findings by holding governments and investors accountable and providing inputs into country strategies.

International organizations can do more to support countries to maximize opportunities and minimize risks from large-scale land acquisition in four ways. First, they can assist countries to integrate information and analysis on large-scale land acquisition into national strategies. Second, they can offer financial and technical support for capacity building. Third, there is scope for supporting stakeholder convergence around responsible agro-investment principles for all stakeholders that can be implemented and monitored. Fourth, they can help establish and maintain mechanisms to disseminate information and good practice on management of land acquisitions by incorporating experience and lessons from existing multi-stakeholder initiatives.

Building on the work done thus far, the World Bank is committed to work together with its partners to help countries integrate investment into their rural development strategies and spending plans, strengthen land governance and relevant institutions, establish complementary infrastructure, and support multistakeholder initiatives to facilitate monitoring and sharing of experience.

NOTES

1. Peru uses very transparent and competitive processes for divestiture of state lands for agricultural use along the Pacific Coast. In the Amazon, processes for land transfer are less open and have many loopholes.

2. Large farms had been established during colonial times and were often either subjected to redistributed land reform or nationalized (Binswanger, Deininger, and Feder 1995). Even for industries with significant upstream processing (for example, cocoa) most production is done by smallholders rather than in big estates.
3. These countries are Cambodia, the Democratic Republic of Congo, Ethiopia, Indonesia, the Lao People's Democratic Republic, Liberia, Mozambique, Nigeria, Pakistan, Paraguay, Peru, Sudan, Ukraine, and Zambia.

REFERENCES

- Binswanger, H. P., K. Deininger, and G. Feder. 1995. "Power, Distortions, Revolt, and Reform in Agricultural Land Relations." In *Handbook of Development Economics*, ed. T. Behrman and T. N. Srinivasan. North Holland: Elsevier.
- Fischer, G., and M. Shah. 2010. "Farmland Investments and Food Security: Statistical Annex." Report prepared under World Bank and International Institute for Applied System Analysis contract, Luxembourg.

