



CHAPTER TWO

Is the Recent “Land Rush” Different?

As chapter 1 highlighted, the expansion of cultivated areas through markets continues to be important in many regions. The jump in investment following the 2008 food price hike also affected countries not traditionally considered viable targets. To understand this “land rush” and the factors shaping it, we used three methods.

- To characterize the demand for land from potential investors that may not (yet) have resulted in projects on the ground, we coded press reports on agreed or contemplated private investments. We find that putative investments have a strong focus on Africa, most of them have not started any work on the ground, and having weak land governance and poor recognition of local land rights is associated with increased investor interest in a country as evidenced by press reports.
- To assess what is happening on the ground and governments’ awareness, we use official inventories of land transactions for 14 countries that featured prominently in press reports. Procedurally, we find that unclear responsibilities, lack of staff and capacity (and little outsourcing), poor land records, low payments (for example, for land and/or taxes), and limited emphasis on consultation, economic viability, and social and environmental criteria all reduce target countries’ ability to regulate investments and protect local property rights. These imply large implementation gaps and lower than expected generation of assets and employment. While local investors are

more prevalent than foreign ones, policy is a main determinant of the volume of transactions.

- To determine how actual livelihoods are affected, we conducted case studies of 19 projects in the field. We find that in many of the countries affected, public agencies lack the tools and capacity necessary to implement regulations or to monitor compliance. Negative impacts arise if local land and resource rights are unclear, if investors' lack of capacity or unrealistic expectations lead to nonviable projects, and if responsibilities agreed to in consultations are not recorded and enforced. Case studies also demonstrate that well-executed projects can generate large benefits, which can then be shared with local people through provision of public goods, employment, access to markets and technology, or taxes paid by investors to local or national governments.

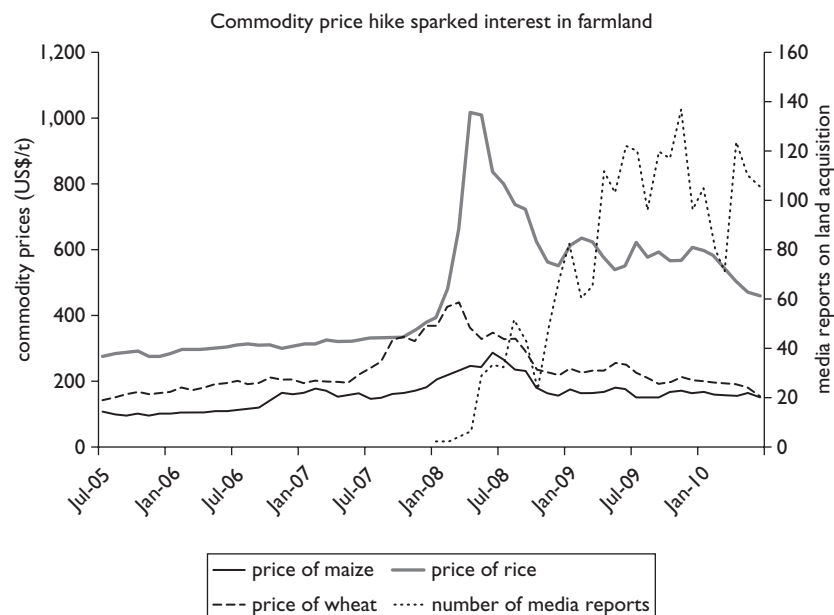
EVIDENCE FROM MEDIA REPORTS

While media reports do not capture actual land allocations or implementation on the ground, they can illustrate the nature and magnitude of investor intentions. The nongovernmental organization GRAIN deserves credit for having recognized that, without information, it will be impossible to either understand the phenomenon of land acquisition or to take action to improve outcomes. To provide such data, GRAIN launched an open blog for global surveillance of large-scale land acquisition.¹ Although both media coverage and postings by users are likely to impart an upward bias and independent monitoring of the phenomenon would be highly desirable, cross-checking the information from media reports against official inventories in the field suggests that, for projects that moved forward, information from the blog was in line with the facts.² Moreover, this is the only source that can claim global coverage. It has been used by research institutions (Braun and Meinzen-Dick 2009), think tanks (Centre d'Analyse Stratégique 2010), and donors (Diallo and Mushinzimana 2009; Centre d'Analyse Stratégique 2010; Niasse and Taylor 2010; Uellenberg 2009) to make inferences on the size of the "land rush." We use it to identify investment characteristics, provide descriptive evidence on reported investor intentions, and conduct an econometric assessment of the factors that increase a country's attractiveness as a target for such investment.

Descriptive Evidence

Plotting prices for rice, wheat, and maize as well as the number of media reports on foreign land acquisitions as a 5-month moving average since July 2005, figure 2.1 illustrates that media interest in this topic started to take off in the wake of the 2007–08 commodity price boom. However, while commodity prices soon declined, reports about land acquisition continued to increase to peak in end of 2009 and have since ticked up again.

Figure 2.1 Key Commodity Prices and Number of Media Reports on Foreign Land Acquisition



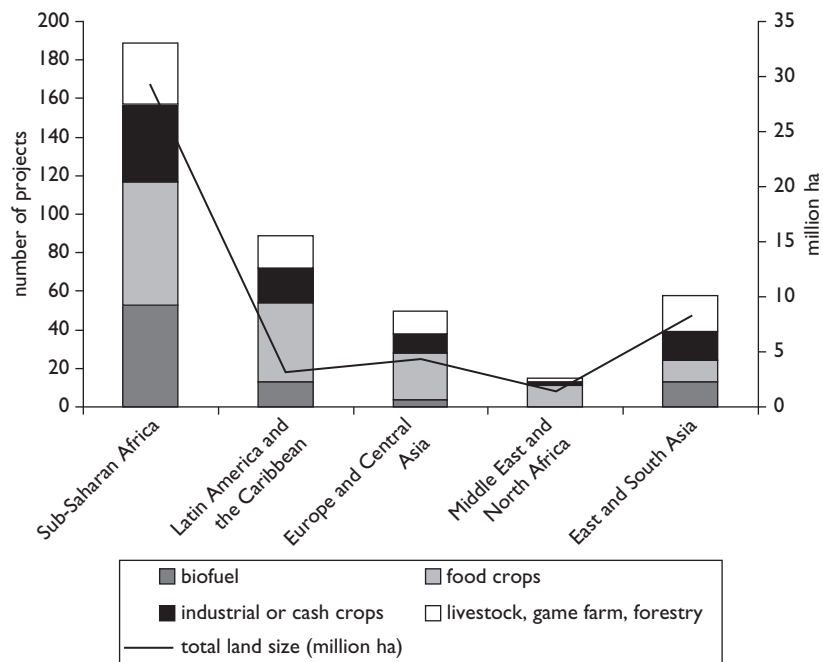
Source: Authors based on Food and Agriculture Organization of the United Nations data media reports posted on the GRAIN Web site (<http://www.grain.org>) and IMF (3-month moving average).

To bring the evidence into a form amenable to quantitative analysis, we coded implementation status, area of investment, commodity group, target and origin countries, and type of investor for all the information posted on the blog between October 1, 2008, and 31 August 31, 2009. This provides us with a database of 464 projects, with 203 including area information that totals 56.6 million hectares (ha). Although projects target 81 countries, 48 percent of projects covering some two-thirds of the total area (39.7 million ha) involve Sub-Saharan Africa, followed by East and South Asia (8.3 million ha), Europe and Central Asia (4.3 million ha), and Latin America and the Caribbean (3.2 million ha) (figure 2.2).

With a median project size of 40,000 ha, reports highlight the scale of investor ambition. In fact, a quarter of all projects involve more than 200,000 ha and only a quarter involve less than 10,000 ha. Of the 405 projects with commodity data, 37 percent focus on food crops, 21 percent on industrial or cash crops, and 21 percent on biofuels, with the remainder distributed among conservation and game reserves, livestock, and plantation forestry (figure 2.3).³

In sharp contrast to reported intentions, according to media reports most of the projects listed have either not acquired land or fail to use the land they

Figure 2.2 Frequency Distribution of Projects and Total Land Area by Destination Region and Commodity Group



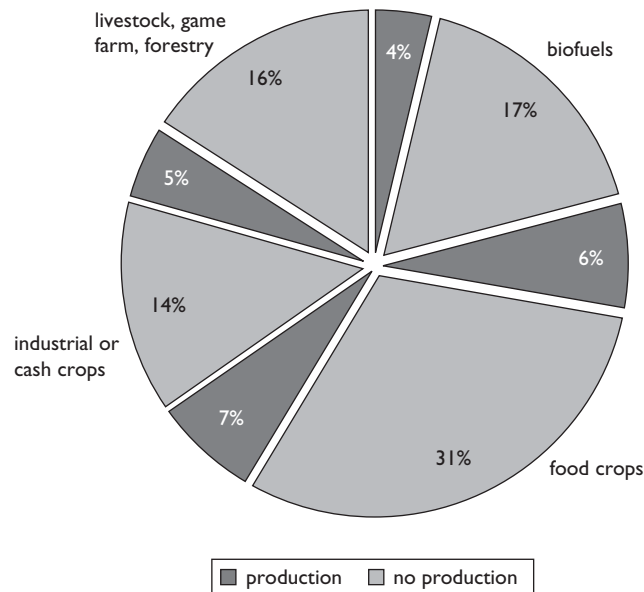
Source: Media reports posted on the GRAIN Web site (<http://www.grain.org>) between October 1, 2008, and August 31, 2009.

Note: The histogram for the frequency of projects is drawn for the 405 projects for which the purpose and the destination region are known. The total areas are computed based on the 202 projects for which the size is known.

acquired as intended. In fact, almost 30 percent are still in an exploratory stage; 18 percent have been approved but have not started yet; more than 30 percent are at initial development stages; and only 21 percent have initiated begun actual farming, often on a scale much smaller than intended. No clear pattern across commodities is evident for projects that have started implementation.

Putative demand focuses on Sudan, Ethiopia, Nigeria, Ghana, and Mozambique in Sub-Saharan Africa, which together account for more than 23 percent of projects worldwide. Twenty-one percent of projects are in Latin America and the Caribbean (mainly in Brazil and Argentina), 11 percent in Europe and Central Asia (mainly in Kazakhstan, the Russian Federation, and Ukraine), and 10 percent in Southeast Asia (the Philippines, Cambodia, Indonesia, and the Lao People's Democratic Republic). A larger share of food crops relative to industrial or cash crops and a focus on investments for biofuels are evident in Sub-Saharan Africa and Latin America and the Caribbean.

Figure 2.3 Share of Projects by Commodity and Production Status of Capital



Source: Media reports on the GRAIN Web site (<http://www.grain.org>) October 1, 2008, to August 31, 2009.

Press reports allow identification of source countries without complicated searches in the company registry. Although part of this may reflect reporting bias or strategic use of press reports by some types of investors, most of the projects in the database originate from a few countries. These include China, the Gulf States, (Saudi Arabia, United Arab Emirates, Qatar, Kuwait, and Bahrain), North Africa (Libya and the Arab Republic of Egypt), Russia, and such developed economies as the United Kingdom and the United States.⁴ Across countries, there are marked differences in the share of projects that have started activities on the ground, with the gap between intent and implementation particularly high for Libya, India, the Gulf States, and the United Kingdom.

Agribusiness and industry account for the largest share of investors, with agribusiness more specialized on food crops and industry on biofuels. Although few sovereign wealth funds appear directly as the origin of investments, investment funds are key players. Funds from the Middle East and North Africa are far more specialized in food crops than funds outside the region, suggesting that part of the demand for land from the Middle East is internal demand for food.

Econometric Analysis: Determinants of Country-Level Demand

Complementing data on planned agricultural investment projects with country-level information allows us to identify factors that make it more likely for a country to be targeted by investors interested in acquiring land on a large scale. Key independent variables include the amount of unused agricultural land based on analysis of spatial data, which distinguishes between forest and non-forest land, the yield gap on cultivated land (as measured by the fraction of the production potential achieved), and two measures of governance, one for investment protection and one for land tenure security.⁵

Four results are of interest (table 2.1). First, investors featuring in media reports are more likely to target countries with abundant non-forested but not forested land. Second, in contrast to standard results on general foreign direct investment, rule of law and a favorable investment climate as proxied by the Doing Business rank for investor protection has only a weak effect on planned

Table 2.1 Estimated Probability that a Country Is Targeted by Investments

Dependent variable	Probability of attracting investment interest		Probability of attracting implemented investment
	Coefficient		
	Model 1	Model 2	Model 2
Nonforest noncultivated suitable land	0.3049**	0.2987**	0.3916***
Forest noncultivated suitable land	0.0503	0.0396	0.0770
Yield gap (in percent)	-0.3635	-0.2774	-1.7457**
Rural land tenure recognition ^a	-0.5117***	-0.6906***	-0.3416*
Investment protection rank ^b		-0.0058*	0.0033
Number of countries	104	102	102
Pseudo R-squared	0.311	0.339	0.268

Source: Arezki, Deininger, and Selod 2010.

Note: Significant at *** = 1%; ** = 5%; * = 10%. Estimation with robust standard errors. Constant estimated but not shown.

a. Variable B6091 from the 2009 Institutional Profiles Database measuring the share of the population in rural areas whose land rights are recognized. Countries where rural land tenure is recognized are attractive if the coefficient is significantly positive.

b. Doing Business 2009 classification of investment protection. The countries protecting investments are attractive if the coefficient is significantly negative.

and none on implemented investment. Third, the impact of rural land tenure recognition is negative, strongly significant for intended investment, and still significant at 10 percent for implemented projects. This finding is robust to alternative measures, in particular a principal component index of all variables of rural land governance and tenure recognition, included in the database we used. It suggests that lower recognition of land rights increases a country's attractiveness for land acquisition. For implemented investments (column 3), the coefficient on recognition of rural land rights, though still negative, is only half the magnitude of what is observed in the other regressions and is of marginal significance. This could either mean that, in these environments, more challenges need to be overcome to successfully implement projects or imply that these countries attract investors who are less able or willing (for example, because they are interested more in speculative land acquisition) to put together projects that can actually be implemented on the ground. Finally, the yield gap is not relevant to explain interest in large-scale land acquisition, but is negatively associated with implemented investments, consistent with the notion that technical feasibility is not a major determinant of investor interest and that, in countries with low productivity, investors need to overcome more challenges to successfully implement investments, everything else equal.

As countries that failed to formally recognize land rights were more attractive for foreigners in search of land in the wake of the 2008 commodity price hike, even after accounting for other factors, they may become a target if commodity prices were to increase again. This has three implications for policy makers.

- The focus of investor interest on countries with weak land governance increases the risk that investors acquire the land essentially for free and in neglect of local rights, with potentially far-reaching negative consequences. Such failure to value land at its true opportunity cost could result in projects that, while desirable from the investors' point of view, may not yield social benefits.
- In areas where land demand for agricultural investment is evident or expected to materialize in the near future, measures to record rights, educate communities about their rights and ways to interact with investors, engage in local land use planning, and make arrangements for consultation and monitoring of agreements will be critical. There is ample scope for South-South exchanges to promote wider application of successful experiences as implemented, for example, in Latin America and the Caribbean (see chapter 4).
- To the extent that overall institutions are weak, civil society will have an important role in educating local communities and monitoring outcomes as a watchdog. Equally, the corporate sector can help by demonstrating its commitment to performance standards through voluntarily disclosure of information, such as social and environmental impact assessments, as well as minutes of agreements reached in community consultations.

EVIDENCE FROM COUNTRY INVENTORIES

Despite global attention to large-scale land acquisitions for agricultural investment, available information is often not validated officially. To overcome this, official data on actual and pending land transfers in 2004–09 were compiled by local collaborators in 14 countries from land administration officials and other key informants, including ministries of agriculture and land or investment promotion agencies.⁶ Following the lead of earlier studies (Cotula and others 2009), we aimed to obtain information on key aspects of each project or proposal.

These aspects include the following:

- Commodity and main market (processed/raw, domestic/export)
- Type of investor (public/private, domestic/foreign)
- Planned capital contribution and employment to be generated by the investment
- Date of first filing for approval and stage in the process of obtaining approval or, if approval had been obtained, the actual progress of the investment
- The area and nature of land rights transferred (land sale/lease or land use rights through contract farming/outgrowers)
- The extent of the social and environmental impact assessment completed during the application process
- The geographic coordinates of the investment.

Because government capacity to record land transactions varies widely across the study countries, information from government departments was cross-checked as far as possible through interviews with key informants, such as investors, government officials not directly involved in data, and non-governmental organizations monitoring these issues.

We find that deficiencies in the processes to award land and the lack of capacity of the institutions implementing these processes make it more difficult to screen investments with good potential and undermine efforts to protect local rights. Instead, they increase transaction costs, reduce tenure security—and thus the investment incentives for investors—and reduce social and environmental sustainability. Projects struggle to get off the ground, fail to generate employment and investment at the envisaged scale, and often end up neglecting both local rights and established social and environmental norms.

Administrative Processes

We recognized from the start that reporting processes and the data collected were likely to differ across countries. We hoped that using a structured questionnaire, collecting information on the legal and regulatory environment, and collaborating with relevant local institutions would nevertheless provide

a reasonably complete picture. It thus emerged as somewhat surprising that the amount of information collected from investors before and especially after approval of the investment was quite limited, that coordination between different agencies and levels of government was lacking, and that, in many cases, details such as the investment's location or implementation status, were either not available or of questionable provenance. Key administrative gaps relate to the following:

- Unclear assignment or duplication of institutional responsibility
- Limited capacity to implement or monitor environmental or social safeguards
- Rudimentary boundary descriptions for investment properties
- Low, if any, payments for land, which are often not collected
- Deficient approval processes, with gaps relating specifically to assessments of economic viability.

Together these gaps reduce tenure security and investment incentives, make it more difficult for projects to quickly initiate production, increase transaction cost and the likelihood of conflict, and complicate efforts by public institutions to collect land taxes and monitor project progress (table 2.2). Detailed experiences are described in appendix 2.

Assignment of institutional responsibilities is often unclear. The resulting lack of clarity about who can make final decisions and failures to (satisfactorily) conduct essential regulatory functions creates an environment with ample space for discretionary decisions and high transaction costs. Competition between investment promotion agencies and line ministries and confused authority for approval and record keeping at local, state, and national agencies are related to the policy framework. The discretionary implementation of regulations is a practical issue that can be discovered only through case studies (box 2.1).

Despite the potentially far-reaching environmental and social impacts of many projects, implementation of environmental and social impact assessments is deficient in many settings. Even where they are required by law, environmental and social impact assessments are often not conducted. In Ethiopia, few agricultural investment projects had an environmental impact assessment (EIA) as required by law. Key reasons were a lack of capacity and a rush to approve projects by the investment authority that precluded sectoral agencies from performing due diligence. In Zambia, where an EIA is required for land clearance to establish large-scale agriculture, only 15 percent of projects in the inventory had EIAs. In Nigeria, by contrast, about 85 percent of the projects in the inventory performed such assessments. Even where they are conducted, however, compliance is rarely if ever monitored. This increases the risk that standards or agreed actions will not be adhered to and the likelihood that negative external effects may materialize.

Table 2.2 Challenges Encountered in Collecting Inventory Data

Country	Data obtained	Issues
Cambodia	Government inventory of concessions up to 2006 produced in response to intense international pressure about the process of awarding concessions	Government had committed to updating the data base in 2009 but did not do so. Issues with internal consistency of data and interpretation of global positioning system coordinates. Interviews confirm that large concessions continue to be granted despite a sub decree aiming to limit this practice.
Congo, Dem. Rep.	National inventory for concessions above 500 ha; up data collection in selected districts of five provinces	Multiple concessions for grants up to 1,000 ha to the same investor to circumvent national concession approval process. Few awards in forested provinces or for Reducing Emissions from Deforestation and Forest Degradation in Developing Countries.
Ethiopia	406 projects in five regions from national and regional governments total 1.19 million ha	Data from different regions are not in a standardized format. Regional investment authorities can authorize awards below 5,000 ha without consulting other agencies; no process for central data sharing. Possibility of conflict of interest in award process.
Indonesia	Failed to obtain data despite widespread concessions for plantations and a field visit to East Kalimantan province	Limited information at the provincial level may be related to delayed approval of provincial spatial plan, which has prevented allocation of land for new concessions
Liberia	Complete data from central government sources on new and old concessions that were cancelled and renegotiated	Information on land area awarded, rents, and tax payments is official and complete, but investment data (including cultivated area) relate to plans rather than actual values. Mismatch to cultivated area as concessions fell into disuse during the war or were never used in the first place.
Lao, PDR	Data on 1,143 concessions covering 248,846 ha, including at least 398 for foreign investors	Fragmentation, lack of upstream reporting, and lines of accountability led to underreporting. Limited data on implementation progress.
Mozambique	All concessions more than 1,000 ha from government sources for a total of 259 approved projects (more than 1 million ha) and 117 proposals involving more than 1.27 million ha	No implementation data collected by government, so no project received definitive rights, which requires demarcation and demonstrated implementation. Projects < 1,000 ha do not enter national approval processes.

Nigeria	State level data collection in 26 of 36 states, cross-checked with federal institutions (Ministry of Agriculture; Forestry Research Institute)	All land allocations are decentralized to the state level. But state-level data are not standardized, making it difficult to draw conclusions. Many investments approvals lack even basic information, such as the year of approval.
Pakistan	Political sensitivities surrounding land ownership did not allow data collection; relied instead on field trips.	Field trips to cross-check the projects cited in media reports cataloged on the GRAIN blog. In none of these cases could evidence of any investments be found.
Paraguay	Registration and census data were examined to explore patterns of large-scale land ownership. Census data provided information on overall land concentration	Data from census and cadastre provide some information on ownership and farm size, but exploring data from the registry proved difficult due to low registration rate and considerable overlaps between parcels. Inaccuracies are greater in active land markets.
Peru	Auctions of public land: data on both land size and value publicly available Private land transactions: not available	Concessions for forestry and agriculture are processed by separate agencies with different processes. Agriculture concessions processed through public auctions; forestry concessions allocated through bidding. Concern over agricultural cultivation on former forest concessions that were cleared of vegetation.
Sudan	Data on 132 land use licenses from the national Ministry of Agriculture and from investment commissions in nine states.	Data beyond land size limited; nothing on implementation. Data quality suffered as a result of the transfer of responsibilities for land allocation and investment approval between ministries and investment commissions.
Ukraine	Land transactions between individual owners and investors. Interviews with all 2,984 operators of > 2,000 ha	No central database; basic data (land area, location, crops, rental) obtained through phone interviews.
Zambia	Data on projects > 500 ha from Ministry of Lands (100 projects), Zambia Development Agency (20) and Patents and Companies Registration Office (10)	Only 10 projects for agricultural investments; the 20 Zambia Development Agency projects are mostly tourism and game farms. Underreporting may be an issue. Very limited implementation throughout.

Source: Authors.

Box 2.1 Management of Land Concessions in the Lao People's Democratic Republic

In the Lao People's Democratic Republic, land concessions are negotiated, awarded, and managed haphazardly, with no systematic or unified monitoring and evaluation procedures. The result is a loss of valuable natural resources and the marginalization of vulnerable populations. Failure to integrate concessions into the regular land administration system leads to corruption, speculation, and a parallel land market characterized by a lack of security. Such tendencies are reinforced by unclear assignment of responsibility to relevant institutions. This situation leads to incorrect interpretations and uneven application of laws and regulations, abuses of public powers to support private developments, and failure to provide compensation to local communities. Addressing these issues, and the many underperforming or poorly performing concessions that have resulted from them, requires better communication with investors and a more reliable land information system.

Source: Authors based on Schoenweger 2010; World Bank 2010.

The technical and economic viability of investments are critical to ensure that local people benefit from outside investment. Also, verifiable quantitative targets with respect to, for example, investment, employment generation, and tax payments are critical for anybody to monitor project progress against plans. Investors may not always have the knowledge or incentive to correctly represent economic viability. Still, in most countries it is implicitly presumed that investors will have the right incentive and be the best qualified to assess economic viability. As a result, reporting requirements or arrangements for monitoring are at best rudimentary. In Ethiopia, many project proposals, even in regions with more advanced governance, only vaguely indicate intended land uses and lack key information, such as the value of the investment and the type of production. Moreover, checks on economic viability do not exist. In Sudan, no economic analysis is conducted and limited attention to identifying existing rights reportedly led to entire villages being transferred to investors. The irreversibility of investment decisions, high transaction costs for making or canceling investments, and the often large external effects (such as those on the environment) imply that greater attention to economic viability and measurable performance indicators are needed.

Even if the land transferred to investors is quite valuable, many countries devote little attention to administrative records, particularly the geographical description of boundaries for land allocations.⁷ Potential negative consequences include the double allocation of land to different parties, the inability to unambiguously ascertain who has rights to a given piece of land without

costly field investigation, and boundary disputes that undermine local rights. This inability to determine the uniqueness of land rights is therefore likely to also reduce investors' ability to use the land as collateral for credit. Even where concession boundaries are mapped (in Liberia and Mozambique, for example), little ground-checking for potential overlaps with other land uses, including community lands, is done, which leads to potentially large risks. Only about 12 percent of communities in Mozambique have their land demarcated. However, the total area over which land use titles given to investors overlapped areas previously delimited in the name of communities amounted to 1.4 million ha in 418 cases (about 20 percent of the total), raising concern about potential future conflicts (see appendix 4, map A4.2.1). In Zambia, cross-checking of coordinates for concessions awarded since 1995 against recent satellite imagery reveals defects. Many of the areas awarded as concessions were apparently used by shifting cultivators, boundaries were often drawn schematically rather than according to natural (physical) features, and in many cases cultivation had not yet started.

Regulations in some countries, including Indonesia, Liberia, and Mozambique, make land allocation contingent on compliance with requirements that may include implementation of business plans, land demarcation, compliance with the stipulations of social or environmental impact assessments, and rental payments. The effectiveness of such rules is, however, reduced by weak monitoring of compliance and the fact that channels to lodge complaints are difficult to access or entirely absent. Public access to information about the modalities of land transfers, including investors' business and investment plans, could be a basis for independent monitoring and third party verification, thus providing stronger incentives for compliance. This could strengthen capacity in the public sector and allow it to focus on essential regulatory functions (for example, EIAs).

Incidence and Characteristics of Large-Scale Land Acquisitions

While weak administrative processes may be cause for concern, the outcomes in terms of productivity and distribution of benefits are even more important. Available data point to several observations:

- Amounts of land transferred differ widely across countries as a function of policy.
- Domestic investors appear to be more prevalent than foreign ones in most contexts.
- Land policies are key determinants of the size and nature of land transactions.
- Most projects are smaller than those reported in the media, though the distribution is skewed.⁸
- Amounts of new employment and physical investment are often well below expectations.

Inventory data from six countries with fairly reliable information highlight that the amount of land transferred can be large and that there is wide variation across countries depending on the policy context. Total transfers in 2004–09 amounted to 4.0 million ha in Sudan, 2.7 million in Mozambique, 1.6 million in Liberia (many were renegotiations of existing agreements), and 1.2 million in Ethiopia (table 2.3; appendix 2, table A2.1). The median transaction is generally much lower than in the media reports, except for Liberia, where there were only a few projects, but two were very large.

Generally, the volume and average size of officially recorded deals are well below those asserted in media reports. Policy is also a decisive factor. In Tanzania, where land rights are firmly vested with local villages, fewer than 50,000 ha were transferred between January 2004 and June 2009. In Mexico, most investors enter joint ventures with communities because of legal restrictions that preclude land transfers beyond a certain size to outsiders and a 10-year program to systematically recognize and demarcate local land rights and establish clear structures to represent communities. By contrast, over the same period, 2.7 million ha were acquired by investors in Mozambique. A 2009 land audit found that, from a sample of projects, more than 50 percent of projects had either not started any activity (34 percent of the total) or lagged significantly behind their development plan. In Peru, auctions of 235,500 ha along the coast over the last 15 years brought in almost US\$50 million in investment, generating large numbers of jobs and underpinning the country's emergence as a major force in high-value agro-exports.

For most projects, size is well below the large areas mentioned in press reports. At the same time, the distribution of project sizes is skewed, with a few often accounting for a large share of the area. In Ethiopia, only 23 of the 406 projects (5.7 percent) involve foreign investors, and more than half of projects are less than 1,000 ha in size. Still, five large projects make up half the area leased out by the government. In Mozambique, where we considered only projects involving more than 1,000 ha, the median size is 1,500 ha (1,000 ha

Table 2.3 Large Land Acquisitions in Selected Countries, 2004–09

Country	Number of projects	Area (thousand ha)	Median size (ha)	Domestic share of area (%)
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 inventories collected for this study.

for domestic and 3,500 ha for foreign investors), and two-thirds of land use requests involve Mozambican investors. The 8 percent of projects involving more than 15,000 ha account for 50 percent of the total land area.⁹ In Sudan, the total area for 132 approved projects amounts to almost 4 million ha, with a median size of 8,000 ha; the largest project covers more than half a million ha. Of these 132 projects, 42 (32 percent) involve foreigners, including 39 Middle Eastern investors, and 90 (68 percent) were approved for Sudanese investors, possibly jointly with foreigners. In Sudan, the largest single country of investor origin is Saudi Arabia, with 19 projects totaling 376,000 ha, slightly less than half the total of all approved foreign investments in the country (879,000 ha).

Notwithstanding the fact that investment sizes are smaller than reported in press reports, in many of the cases studied, investors acquired land in quantities much larger than they could use, at least initially. Many saw this tactic as motivated by a desire to lock in very favorable terms of land access and eliminate future competition. In settings where either the technology or investor capacity is unproven, the acquisition of land in larger quantities than an investor can reasonably operate involves significant risks. Especially in areas where land values are expected to appreciate and no effective mechanisms for land taxation are in place, large land allocations to investors with little experience are risky. Wherever feasible, it will thus be desirable to give land to a larger number of entrepreneurs in smaller lots and provide them with the option of acquiring more land in the future once they have proven their capacity to use the land effectively. Such an approach would also reduce the danger of creating local monopolies in input and output markets, an issue that will be of relevance if land users continue to depend on land-based livelihoods. Given the evidence that investors do not always live up to their promises, greater scrutiny of investment proposals' viability and use of deposits to ensure investment is actually made are now widely recognized as necessary to screen investors.

Contrary to the image of a neocolonial foreign scramble for land that often emerges from media reports, acquisitions recorded by official inventories are dominated by local individuals or companies. Domestic investors account for more than 90 percent of the area allocated in Nigeria and half or more in Cambodia, Ethiopia, Mozambique, and Sudan.¹⁰ Also contrary to media reports, Sudan is the only country where the majority of foreign projects are from the Middle East. The share of investors of domestic origin is much higher, reflecting the smaller size of domestic projects. But as local businesses may act as fronts for foreigners, the share of land acquired by foreigners may be larger than reported.

Given the central nature of asset and employment generation through planned investments, the level and recording of information on planned (temporary or permanent) employment and physical investment is surprisingly limited. The patchy data that are available suggest that investments create far

fewer jobs than are often expected (or promised, as discussed later) and that their capital intensity varies widely. For example, projected job creation ranges from less than 0.01 jobs/ha (for a 10,000 ha maize plantation) to 0.351 jobs/ha (for an outgrower-based sugarcane plantation) in the Democratic Republic of Congo. Expected job creation in Ethiopia is similarly limited, with an average of 0.005 jobs/ha for cases where figures are given. Planned capital investments also vary widely, from US\$27/ha for mixed livestock farming to US\$21,000/ha for sugarcane. Some are unbelievably low (for example, US\$5/ha for an oil palm plantation in Nigeria). Given the importance of capital investment and job creation for the viability of ventures and the sharing of benefits, more attention would be warranted not only to recording these figures but to giving them greater weight in project evaluation and monitoring. Measures to ensure that plans are complied with may be warranted also (for example, the requirement of a substantial share of planned investment to be deposited upfront, as in Peru).

EVIDENCE FROM PROJECT CASE STUDIES

Case studies allow us to understand how aggregate phenomena reported in inventories affect local livelihoods, identify potential unintended consequences, and formulate hypotheses that can then be tested through quantitative methods. Key insights from each case study are presented in table 2.4 and elaborated further in appendix 2, table A2.2. We thus draw on case studies to assess how large-scale investment affects local livelihoods and identify factors that may not be obvious from aggregate data. We conducted 19 case studies on individual investment projects in seven countries.

Countries were chosen based on investor interest and media attention as indicated by press reports and on a review of social risks, vulnerable groups and recent policy reforms that might hold lessons for other countries. A team with at least one social analysis specialist then visited each project and interviewed stakeholders. Where available, they also examined project documents, such as environmental impact assessments. Appendix 2, table A2.2 explains why each case study country was chosen. The sample can be considered to represent the projects that were in operation and where investors did not refuse access.¹¹ If anything, these projects are likely to be the ones that are more successful and that will provide larger benefits to local people. The fact that in many of these cases outcomes and processes left much to be desired suggests that there is an urgent need to monitor outcomes on the ground and to publicize both good and bad examples to draw lessons for policy.

Investments can affect local livelihoods and food security by generating jobs, providing social services, increasing knowledge, and improving the asset base of the local population by, for example, providing it with a stake in a joint venture or compensation for land and resources lost. Case studies point to high

Table 2.4 Key Insights from Case Studies

Country	Cases selected	Key insights
Congo, Dem. Rep.	<p>Maize (10,000 ha given, 2,000 ha planted) Mixed (24,000 ha obtained; planted 4,000 ha rubber, 150 ha coffee, 95 ha cacao)</p>	<p>Project design changed from sugar to maize in response to provincial drive for food self-sufficiency. Local cultivators were pushed off into a national park. Rubber project employs 1,282 workers and provides them with social benefits. Workers receive variable wages of some US\$3–US\$5 per week. Some forest clearance for new rubber.</p>
Liberia	Rice (14,999 ha)	<p>Investor encroached illegally on fertile wetlands, displaced 30 percent of the population (1,000 people). Unskilled jobs created but often filled with foreigners willing to work for lower wages. Silting of swamp.</p>
	Timber (119,240 ha)	<p>Investment restricted local access to forest products in context of increasing population and decreasing farmland.</p>
	Rubber (32,540 ha)	<p>Dispute about investor's right to expand beyond originally cultivated area exacerbated by the age of the grant (from 1960s); lack of consultation and compensation</p>
Mexico	<p>Maize Chiapas (3,066 ha), Maize Jalisco (2,070 ha)</p>	<p>Both public and private sector actors involved in improving smallholder access to maize markets. <i>Ejido</i> members and peasants often maintain ownership and receive technical assistance, financing from suppliers.</p>
	Rubber (2,970 ha)	<p>Key private sector companies support project by guaranteeing harvest sales. 300 jobs created.</p>
Mozambique	<p>Sugarcane for ethanol (30,000 ha) Forestry (26,000 ha)</p>	<p>Job creation significantly lower than anticipated; salary insufficient to compensate for lost livelihoods Investors damage nonrenewable natural resources (water) without compensation, disadvantaging women who are responsible for gathering it.</p>
	Sugarcane for ethanol (20,000 ha)	<p>Lack of agreed boundaries of concessions led to displacement from agricultural and grazing lands. Consultations did not include vulnerable groups, who were disadvantaged by land transfers to investors.</p>

(continued)

Table 2.4 (Continued)

Country	Cases selected	Key insights
Tanzania	Teak (28,132 ha awarded, 7,800 planted)	Investors create local benefits through employment and social infrastructure projects; some concern about in-migration.
	Livestock and jatropha (4,455 ha at present but investor targets 18,211 ha)	Investors often circumvent legal land acquisition procedures, such as by soliciting land directly from villages.
	Multiuse (5,000 ha)	Land conflicts with local agriculturalists, bee keepers, other investors have damaged public relations.
	Rice (5,818 ha)	Potentially negative impacts on pastoralist communities' access to grazing land, firewood, and water
Ukraine	Multiple crops and pigs (9,477 ha)	Some EIAs completed but most environmental impacts still hypothetical
	Multiple crops (150,000 ha)	Many recent investments involve public-private partnerships and/or foreign investors.
	Multiple crops (300,000 ha)	Profitable companies employ local people at competitive rates, use modern production methods, and train workers.
Zambia	Export-oriented crops (155,000 ha)	Community relations were improved through social infrastructure and regular communication with and training of local people.
	Sugar (17,838 ha estate + 13,860 ha outgrowers; smallholder + commercial)	Land rentals are low; investors try to lock these in for the long term.
	Jatropha (250 ha nucleus, only 65 ha planted, + outgrowers)	No progress toward implementing government farm block program; investors appear uninterested in this land
		Negative impacts included displacement, loss of access to natural resources, and land clearing for cultivation.
	Outgrower sugar scheme results in average wages lower than alternative smallholder cropping options.	
	Outgrower schemes not subject to environmental impact assessment, even large farms often do not complete EIA	
	Sugar contract pricing mechanism works against smallholders; local people encouraged to cede land rights to company.	
	Environmental concerns include eutrophication from agricultural chemical runoff, sedimentation, and pollution.	
	Smallholders reluctant to join jatropha outgrower scheme due to unproven technology and poor plantation results	

Source: Authors, based on case study reports.

expectations in employment generation, which, at least in some cases, do not seem to be commensurate with the investment or the qualifications of the local populace. The extent to which assets are provided or local people gain access to knowledge and technology varies widely across investments. Most successful investments provide social services and encouragement for local entrepreneurship. As many of the projects considered began only recently, few positive impacts have yet materialized. Careful future monitoring as well as attention to the time profile of benefits and the distribution of risks will be important.

Implementation Status and Viability

One key finding from the case studies is that, especially for investments started recently, progress with implementation is surprisingly limited, in part because many were approved during the 2008 boom. In Mozambique, Tanzania, and Zambia, it was difficult to identify any projects operating on the ground. Among the projects that had started, the areas in operation were typically much smaller than those allocated. This lag in implementation was normally attributed to unanticipated technical difficulties, reduced profitability, changed market conditions, or tensions with local communities. A large share of operating projects involved either the transfer of ongoing concerns—rather than the establishment of new ones—or contract farming ventures. Investors may thus have underestimated the complexity of agricultural operations, particularly the challenges associated with clearing land, establishing internal infrastructure, and linking to markets. It could also mean that the approval criteria applied may not have been sufficiently rigorous in situations where government is involved in screening projects and transferring land.

Many projects in the biofuel sector experienced financial problems or were cancelled entirely due to lower oil prices. For example, none of the biofuel operations in Mozambique were operating at the envisaged scale and all of them reported delays of at least three to five years. While the financial implications are unknown, liquidity problems and the difficulty of raising additional funds led some projects to change plans. In Katanga province in the Democratic Republic of Congo, for example, one project shifted its planned 10,000 ha of sugarcane to maize for food consumption, partly in response to government subsidies. Similarly, a much-hyped Chinese interest in 3 million ha of Congolese rainforest for oil palm has so far made little progress.

Beyond economic and technical challenges, tensions with local communities have often stymied implementation and could give rise to a downward spiral of conflict. Land allocated without prior consultation or agreement on the amount and type of compensation and a lack of local involvement in the concession led to significant tension that affected project operations in Liberia. In a number of cases, including Ukraine, such conflict required costly restructuring of plans or court action that could possibly have been avoided if projects had been better conceptualized and local residents had been consulted. In

Liberia, Mozambique, and Zambia, conflict, in one case involving the killing of a senior company representative, ensued after the government transferred land that communities considered theirs without effective consultation. In Liberia, such conflict escalated to the highest political levels, with undesirable impacts for all involved.

Socioeconomic Impacts

Even projects that are not fully implemented can seriously undermine local livelihoods. Project proposals not implemented have often affected patterns of resource access and shifted the local balance of power. Expressions or expectations of outside interest in agricultural land did in some cases set in motion “land grabbing” by local elites with undesirable social impacts that could deprive vulnerable people of their livelihoods. In several cases, investors aimed to strategically influence public opinion and exploit coordination gaps within the public sector by circulating rumors. This created the impression that the investments had been finalized and had already been approved at a higher level, either strengthening the investor’s negotiating position or allowing the investor to strategically co-opt local leaders. In some instances, implementation delays reduced negative impacts on local communities. In other cases, investors restricted access to land (including common property resources) in a way that negatively affected local livelihoods and then failed to use the land productively.¹²

Provision of public goods by investors was in many cases a more direct way to share benefits, including schools, transport (maintenance of access paths and local roads), and social activities as well as activities to complement local resources (for example, water) and productive activities (by providing access to inputs or output markets, for example). It was particularly effective in doing so where local input was sought through local governments (as in Ukraine) or user groups (as in Liberia, Mexico, and Tanzania). Such input helped in making decisions on the type of goods to be provided and often led to dialogue between the investor and the local population.

Employment is a key factor for transmitting effects. Local people often identified jobs as the most important and immediate benefits of the investments. Communities in Liberia, Mexico, Mozambique, and Ukraine very much appreciate employment generated by investments and believe that such employment contributes to their well-being. In Ukraine, one company employs 5,000 workers, almost all of them local residents, at wages some 50 percent higher than the average. The company also trains workers to operate and maintain expensive equipment. Infrastructure construction can also create additional (temporary) jobs. In Liberia, observers interviewed for one case study linked the creation of full-time jobs for 400 unskilled workers, mostly ex-combatants, to reductions in crime and prostitution. But high expectations for employment gains may not always be realized. The most frequent reason for such a failure

was that projects were not viable economically and/or progress with implementation was lagging. For example, one biofuels project in Mozambique had planned to hire 2,650 workers, but at the time of this study only 35–40 people were employed full-time in addition to some 30 seasonal workers.

Moreover, given that jobs will naturally benefit those with better skills and higher levels of education, even the creation of large numbers of jobs may not always be perceived as an unmitigated benefit. This was particularly pronounced in cases where jobs were expected to provide compensation for land and where vulnerable groups lost access to some livelihood resources but did not benefit in terms of jobs. Attention to distributional impacts, possibly by complementing jobs (and market access, which also favors those with skills) with support to social infrastructure that will benefit all local people, helped in some cases to counteract such possible bias against vulnerable groups.

Local peoples' appreciation for job-related benefits may also be reduced if these jobs are only seasonal or if they are taken up by migrants. Seasonality has been an issue in a project in Mozambique where 280 local people (56 of them women) are employed to plant and weed. Investors bringing in migrants from elsewhere was a frequently cited social issue particularly in Liberia, Indonesia, and Ukraine. While in-migration should not be a problem as long as land rights are compensated independently, in many instances jobs were supposed to partly compensate for loss of access to local resources. The fact that these jobs failed to materialize or were taken by outsiders led to conflict and accusations of cheating. A lack of records made it difficult to substantiate such claims.

Where smallholder cultivation is already practiced, large-scale investment can generate large benefits by providing access to markets and technology. In Mexico, some large investors (Nestlé, Bimbo, Maseca, Comercial Mexicana, Monsanto, and Pepsi) increased access to technical packages and markets through partnerships with local groups. As a result, participating communities' livelihoods improved, as evidenced by the increase in the incomes of maize producers and the decline in out-migration. Large-scale investment also significantly reduced farmers' risk by providing a secure outlet for produce. All these investments involved continuing cultivation of land by local *ejidatarios* (farmers). In contrast, a 2,000 ha rubber project in Chiapas relies on land rented from local people. The company provides *ejidatarios* with technical assistance and supervision as well as a secure market for their produce. In Ukraine, a (local) investor brought in technology to dramatically raise yields, provides machinery services, and shares technical advice with local people in regular town hall meetings. In Paraguay, an outside investor uses strong community involvement to help overcome a legacy of violence and conflict, generate opportunities for local entrepreneurs, and provide inputs for local farmers.

Many of the projects studied had strong negative gender effects, either by directly affecting women's land-based livelihoods or, where common property

resources were involved, by increasing the time required of women to gather water or firewood and take care of household food security. In many cases, it was presumed that land rights were in the name of men only, and consultations were limited to males in the community, leaving women without a voice. Bargaining power within the household was affected in unpredictable ways.

In some cases, negative distributional and gender impacts arose because consultation, if conducted at all, had very narrow outreach. Vulnerable groups, such as pastoralists and internally displaced people, were excluded from consultations in an effort to override or negate their claims. Without proper safeguards, they then became aware of pending land use changes too late to be able to voice concerns. Females and other vulnerable groups are also less likely to obtain employment from investors or be included in decisionmaking processes surrounding the investment. Even if land was fairly abundant, reduced access to land and associated natural resources was a frequent concern. Potential distributional impacts on food security were also raised as some people lost control over food production and acquisition.

Consultation was particularly critical if land rights were not formalized. Documenting rights to communal areas prior to investment can help to prevent conflict that can otherwise arise easily, especially if contractual arrangements are fuzzy. In Tanzania for example, written records from comprehensive land use plans conducted before investors arrived in an area were invaluable as a means of documenting claims. Where such documents were unavailable, conflict often arose regarding the precise location of the land, the terms of transfer, the type and quantity of other resources (for example, water or nontimber forest products) transferred with the land, and the scope and modalities for making modifications to earlier contracts. Where land was maintained by original owners, issues familiar from the contract farming debate—terms of payment for produce, scope for side-selling, terms of credit, and monopsonistic behavior by processors with a *de facto* local monopoly on buying produce—emerged in Indonesia, Liberia, Mexico, Mozambique, and Tanzania.

CONCLUSION

Media reports suggest that the recent wave of investment differs from the past trends described in chapter 1. Recent investment involves new types of investors and focuses mainly on African countries that did not appear to be attractive targets earlier and have very weak land governance. As a consequence, the new wave of investments creates risks beyond those present in more traditional investments: investors may lack the necessary experience, countries' institutional infrastructure may be ill-equipped to handle an upsurge in investor interest, and weak protection of land rights may lead to uncompensated land loss by existing land users or land being given away well below its true social value. This could lead to a large divergence between financial and economic benefits and an

illusion of profitability even for projects that are undesirable from the country perspective.

Compilation of inventories based on official government data and case studies of a select set of projects confirm that in many instances these are real dangers that need to be addressed if the potential benefits from such investments are to be realized. Public institutions in target countries not only lack the capacity to handle the upsurge in investor interest but are also not geared toward attracting viable investments. Approval processes are often ill-defined, centralized, and discretionary, with different parts of the same government often at odds with each other. In some cases investors can benefit more from trying to navigate the system than from trying to design investments that generate jobs and increase productivity. Consultation with local right holders is in many cases superficial, with a lack of prior information and no written agreements that would clearly specify different parties' responsibilities and thus could be used to provide a basis for redress in case agreements are not adhered to. Land boundaries (and rights) are often ill-defined, and environmental and social safeguards can be neglected. Government capacity to monitor compliance is severely limited. But instead of relying on publicity of relevant documents and independent third-party verification, agreements are surrounded by an air of secrecy that makes public reporting and monitoring near impossible.

In light of these deficiencies, it should not come as a surprise that many investments, not always by foreigners, failed to live up to expectations and, instead of generating sustainable benefits, contributed to asset loss and left local people worse off than they would have been without the investment. In fact, even though an effort was made to cover a wide spectrum of situations, case studies confirm that in many cases benefits were lower than anticipated or did not materialize at all. At the same time, successful cases also highlight that, if projects were economically viable and existing rights enjoyed recognition and protection, local land owners could benefit significantly. There are four main channels through which benefits can materialize:

- Provision of public goods and social services, often through community development funds into which part or all of the compensation for land is deposited
- Job generation and indirect employment due to the project
- Access to technology and markets for existing smallholder producers
- Payment of taxes to local or central government.

The most appropriate way for ensuring that benefits are in line with local ambitions will depend on the capacity, cohesiveness, and entrepreneurial aspirations of local communities as well as the level of economic activity, public goods available, and capacity of local governments.

NOTES

1. *Land acquisition* as defined involves not only traditional purchases but also leasing. Many countries, especially lower income ones, have highly regulated land markets, often maintain residual public ownership, and place restrictions on possible land ownership by foreigners (Hodgson, Cullinan, and Campbell 1999). In many cases, especially in Africa, transactions thus involve long-term leases of use rights through the public sector rather than outright ownership. Modalities differ widely, particularly the extent to which such transactions extinguish preexisting claims (de jure or de facto), whether subleasing is allowed, in the lease conditions and the way they are monitored, as well as the remedial measures (including procedures for revoking the lease in case of noncompliance). Although they will be discussed in detail later, two critical elements in this context are the clarity of framing regulations and assigning responsibility for monitoring and the capacity of the relevant institutions to do so. See <http://farmlandgrab.org>. The authors are grateful to Charlotte Coutand for helping with the coding.
2. Not all projects mentioned in the blog could be identified in official inventories. For projects that did match, details given in press articles were in most cases close to what was documented in official data.
3. Percentages are calculated for the 454 projects for which the purpose and implementation status are known (excluding rejected or withdrawn projects).
4. Identifying an investor's country of origin for a specific project can be problematic given the complicated business structures that may be involved. It is less problematic when analyzing media reports, because the investor origin is usually investigated and mentioned by journalists.
5. We used the Doing Business 2009 classification of investment protection as a measure of governance meaningful for such investments. Our measure of land tenure security is an ordered variable extracted from the 2009 Institutional Profiles Database (variable B6091) jointly published by the Agence Française de Développement and the French Ministry of Economy, Finance, and Industry describing the share of the rural population with formally recognized land tenure.
6. Countries include Cambodia, the Democratic Republic of Congo, Ethiopia, Indonesia, Lao PDR, Liberia, Mozambique, Nigeria, Pakistan, Paraguay, Peru, Sudan, Ukraine, and Zambia.
7. Countries in the sample in which the spatial reference is either nonexistent or incomprehensible include Cambodia, the Democratic Republic of Congo, Ethiopia (some regions), Ghana, and Sudan.
8. In many cases, the information given by the press on specific projects that could be identified in inventories was consistent with inventory data.
9. Several of these large projects are game farms for safari hunting and have not yet been approved.
10. The exception is Liberia where the inventory is made up of renegotiation of huge concessions, many awarded in the 1960s, with a median more than 80 times that in Ethiopia.
11. In countries where an inventory or list of large investments was available (Ukraine, Mozambique, Zambia), the list was used to select projects for case studies. In many cases, the projects originally selected turned out to be nonoperational, and in some cases private investors opposed being included in the study and refused researchers access to the premises. These projects had to be replaced by others where production had started or where investors were willing to have local populations and

workers interviewed. In countries where no public list of projects was available, consultants used interviews with officials at national and provincial levels to put together a list from which to select projects. Given the large number of investments that were not operational, our methodology for project selection implies that the results obtained here can be considered representative of operational and projects where cooperation was obtained.

12. In at least one case, it appears that an investment project was not economically viable because the land identified was not suitable for cultivation. Confronted with this reality, investors encroached on more fertile land cultivated by local communities, creating conflict.

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