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# Global land acquisition: neo-colonialism or development opportunity?

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Abstract Increasingly, developing nations which are land rich are sanctioning the sale or transfer of user rights of large tracts of farmland for foreign investment. While this issue is of relatively recent origin, caused in large measure by the recent global food crisis and related to desires by food importing countries to have greater control over their food supply, the impact on food security could be very significant. Because of the newness of the matter, most of the available evidence is found outside traditional academic literature. Poor, smallholder farmers without formal land titles currently occupy much of the land sold in these transactions, threatening the internal food security of the lessor state. Factors driving the global acquisition of land include development aid shortfalls, the global food crisis, the burgeoning middle class in middle- and high-income nations, and the increasing acceptance of biofuels as a viable alternative source of fuel by governments of these nations. The risks associated with the global acquisition of land on food security of the seller country are manifold. This article reviews the current literature available on the subject and makes policy suggestions for equitable investment and benefit-sharing for all stakeholders. Opportunities and risks abound but if the risks are mitigated, then the

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P. Pinstrup-Andersen Applied Economics and Management, Cornell University, Ithaca, NY, USA global acquisition of land has the potential to be an unparalleled development opportunity for lessor states.

**Keywords** Food security · Hunger · Developing countries · Africa · Land grabbing · Land acquisition

#### Introduction

In a quest for more control over their food supply, many capital-rich, natural resource-poor nations are setting their sights on international farmland acquisitions. This phenomenon is colloquially known as land grabbing-the large-scale purchase or lease of farmland in natural resource-rich developing countries. The cheap and abundant farmland in such nations, particularly in Africa, drives capital rich nations to outsource their food production (Cotula et al. 2009). Land involved in these transactions is often advertized by lessor governments as 'underutilized,' 'uncultivated,' or as 'available' tracts (Hallam 2009a). This is, of course, convenient for governments, as formal land tenure rights have rarely been extended to rural populations that nevertheless depend on the land for their survival. By customary law, however, indigenous populations-many of whom have inhabited their native land for generations-claim user rights to much of the land their governments are offering to other countries and corporations.

In the past few years the world has seen an upswing in the number of hectares of land made available for foreign investment by African governments. Between 2006 and 2009, the International Food Policy Research Institute (IFPRI) estimated that "15 to 20 million hectares of land were the subject of negotiations" (Kugelman 2009). One claim is that to date, investors have spent more than "onehundred billion dollars for over 40 million hectares…from Ethiopia to Indonesia" in global land acquisition (GRAIN 2009). Whether or not this estimate is completely accurate the accelerated pace of land acquisition is alarming. Africa, the world's hungriest continent, cannot currently feed its own population, let alone feed itself and supply food to foreign markets (Rice 2009). Large-scale purchases of land in developing nations by foreign investors, however, continue to displace indigenous inhabitants, decreasing affected communities' access to land and water resources and increasing the problem of food scarcity in the host nation.

The resurgence of global land acquisitions evokes images of our forefathers' affair with colonization. The only missing element in this new spate of global land acquisitions is war, dialogue between governments and investors in present day transactions possibly precluding the necessity of violent land acquisition. Rather, two consenting parties—the natural resource-rich but capital-poor host government and capitalrich investor—jointly forge contracts for land transfer. These transactions are shrouded in secrecy and lack sufficient stakeholder consultation (Meinzen-Dick and Markelova 2009). Indigenous communities, lacking formal land tenure rights and a political voice, are often victimized in their government's transactions.

Many scholars view global land acquisition as a development opportunity for host nations. We must not, however, conflate corporate investment and economic development. Investor commitments to build infrastructure and increase employment and foreign exchange have the ability to stimulate economic development, but only if hostcountry governments establish sound, enforceable investment and taxation policies (Cotula et al. 2009). Host

Table 1 The most undernourished countries are net sellers of land

governments must provide for indigenous populations displaced by foreign acquisition of their land, ensure employment gains for the rural population from new commercial farms and implement a schedule of export tariffs on commodities grown in the host nation in order to reap some benefit from corporate investment. As corporate investors displace indigenous agrarian, subsistence-based populations, host governments must ensure that affected populations do not become food insecure. Without establishing provisions to compensate the marginalized, land-rich African host nations could suffer the natural resource curse with all of its negative effects (Auty 2006). Foreign investment, under this scenario, will fail to be a development opportunity for these countries and their disenfranchised populations.

#### The cast of characters in the global acquisition of land

Nations with the greatest dependency on food aid, and with the largest percentage of their population suffering from undernourishment, are increasingly net sellers of farmland. According to data from the World Resources Institute, sub-Saharan Africa is home to 18 of the top 20 most undernourished nations (World Resources Institute 2009). Even more alarming, many of the continent's countries have land for sale (Table 1). Nations with the highest scores on the global hunger index—those at the greatest risk of food insecurity are also net-sellers of farmland to foreign interests. These include the African nations of Burundi, Chad, Ethiopia, and the Democratic Republic of the Congo (IFPRI 2009).

Country	Undernourished population as a % of total population <sup>a</sup>	Tons of aid <sup>b</sup>	Net sellers of land <sup>c</sup>	
Congo, Democratic Republic	76%	112,323.80	Y	
Eritrea	68%	17,233.30	Х	
Sierra Leone	47%	25,900.10	Х	
Angola	46%	n/a	Y	
Ethiopia	46%	975,306.00	Y	
Zambia	45%	31,563.10	Y	
Central African Republic	43%	14,867.10	Х	
Rwanda	40%	24,820.40	Х	
Zimbabwe	40%	327,338.00	Х	
Mozambique	38%	125,698.30	Y	
Madagascar	37%	29,446,60	Х	
Tanzania	35%	6198.70	Y	

X = Land acquisition data aggregated from news articles, publishing universities and blogs etc

Y = Land acquisition data from IFPRI report

Data Sources: World Food Program (2009), World Resources Institute (2010) and Von Braun and Meinzen-Dick (2009)

<sup>a</sup> (World Food Program 2009)

<sup>b</sup> (World Resources Institute 2010)

<sup>c</sup> (Von Braun and Meinzen-Dick 2009)

Development aid shortfalls and historic low investment in agriculture are driving the opening of African farmland for commercial investment (United Nations 2009). A dearth of foreign direct investment in Africa, due to political instability or disinterest, has preserved much of the continent's natural resources. Nations endowed with a surplus of fertile, 'underdeveloped' cropland are uniquely positioned to be net-sellers to international developers of farmland. It is therefore troubling that these food scarce nations, for whom food security is necessary but apparently expendable in the face of potential investment, are primary sellers of land.

The most common characteristics of foreign investors in the acquisition of land are capital-rich, natural-resource poor Arab and East Asian governments and corporations, many of whom suffered from the 2007 to 2008 rises in food prices (Kugelman 2009). These countries and government-backed corporations are strategically acquiring the world's remaining farmland in order to ensure future food security for their burgeoning populations (Malone 2009).<sup>1</sup> Purchasing countries generally lack arable land or have insufficient water resources to increase their current rate of food production to match growing demand (Spieldoch and Murphy 2009).

The newest acquirers of international farmland are hedge funds and other investors who view farmland investments as yielding sizable future returns. Many western banks such as Morgan Stanley and Goldman Sachs are playing their odds at returns on international farmland acquisitions. In a recent publication, The Oakland Institute noted that BlackRock Inc. recently established a hedge fund worth \$240 million of which \$30 million is specifically for international farmland acquisition (Daniel and Mittal 2009). These entities are contributing to the swiftness of global land acquisition.

#### Trends and drivers of international land acquisitions

Multiple factors have created an international market for outsourcing food production to areas of the world where farmland is cheap and abundant. Development aid deficits are driving the lessor country to make tracts of land available for foreign investment (Cotula et al. 2009). Factors driving the lease to invest in commercial agriculture production in areas where fields are abundant and affordable include the global food crisis, securing a food supply that will support growing populations in emerging market countries and acceptance by industrialized nations of liquid biofuels as an alternative fuel.

#### Development aid deficits

Governments of developing countries are looking to the private sector in order to recover from shortfalls in development aid (United Nations 2009). A dearth of investment in agriculture is an underlying cause of the recent food crisis and the problems developing countries encounter when attempting to deal with it. The FAO estimates that agriculture investments must increase significantly to meet the nutritional requirements of the "nine billion global citizens in 2050" (FAO 2009a). These estimates of the yearly increase vary between 83 billion and 209 billion US dollars to assure sustainable food security for the global population of 2050 (FAO 2009a, b).<sup>2</sup> The majority of the world's 'remaining' cultivatable land lies in developing countries (Cotula et al. 2009). Many large land areas in the developing world are in fact cultivated by indigenous communities, but return very low vields. This limits the capacity of the developing world to meet the world's demands without outside investment (Hallam 2009b). In the late 1970s, developing countries relied on outside development aid to stimulate agricultural growth and provide nourishment. Eighteen percent of total development spending in 1979 was devoted to agriculture (IFAD 2009). By 2007, however, development aid to global agriculture dropped to a mere 4.6% of total development spending (IFAD 2009). This decrease in foreign aid has left poor nations scrambling to increase foreign direct investment.

In the wake of the global food crisis, governments of developing countries are realizing the opportunity imbedded in global land acquisition. Therefore, it is not surprising that the poorest African nations suffering from the highest rates of hunger are those with the largest land areas available for lease to foreign commercial investors (IFPRI 2009). To lure outside land investors, host governments eliminate short-term property taxes, reduce export tariffs, and eliminate land use fees in an effort to differentiate themselves from other developing countries offering land (Cotula et al. 2009). Further, terms negotiated in land deals often enable foreign tenants to export all of the food grown in host nations to the tenant's home country (Spieldoch and Murphy 2009). In hungry host countries, such as Burundi, Chad, the Democratic Republic of the Congo, Eritrea, Ethiopia and Sierra Leone, this poses a massive threat to national food security, particularly in times of famine. Food insecurity of host countries is compounded by forced

<sup>&</sup>lt;sup>1</sup> "Most of this land is in Latin America and Africa. Many governments have placed their 'open' land on the market for foreign land investment. Ethiopia, for instance plans to offer 3 million hectares of land to foreign investors for large-scale commercial farm development. Often, 'available' lands are held by indigenous groups who have no formal land tenure rights but have customary claims to the land that are not recognized by the national government of the land-selling country." (Source: Malone 2009)

 $<sup>^2</sup>$  There are two conflicting figures on necessary increases in food production yields to satisfy the food requirements of 2050. Please review both sources for further information.

evictions of indigenous smallholder farmers to accommodate new foreign land tenants.

#### Global food crisis: the rise in global food prices

Increased use of food crops for biofuel production and high oil prices are blamed for the rise in food prices the world experienced during 2006–2009 (Heady and Fan 2008). As food prices began to rise, commodity-exporting nations placed export restrictions on price-volatile crops grown nationally, such as rice, to protect their food security. Export restrictions, reduced import tariffs and other trade distortions drove up international commodity prices, resulting in shortages of food on the global market and causing panic for many emerging economies suffering from a dearth in natural resources (Spieldoch and Murphy 2009).

According to the FAO's Food Price Index, between 2006 and 2010, the global food price index increased by 37.7% (FAO 2010). The table below displays annual percent changes in prices between 2006 and 2010 (Table 2).

Commodity prices of all but sugar dropped between 2008 and 2009, but are on the rise again. In 2009–2010 the price index of all commodities, except for cereals, experienced a significant increase (FAO 2010). Reliance on foreign agriculture continues to make net importers of food susceptible to fluctuating food prices and vulnerable to interruptions in food supplies (Blas 2009). Viewed as a threat to national food security, net-importers of food are increasingly in search of cultivatable land to ensure future 'self-sufficiency.' Food security is a significant driver of land acquisition. One can expect that continued increases in food prices and higher food price volatility will further compel nations to seek-out and acquire tracts of land in developing nations where land is cheap.

### Food security: securing a food source for nations with growing populations

Population growth in emerging market countries is another factor fueling global land acquisition. An article from Ghana

Business News identified a document by former World Bank president James Wolfenson that attributes the "growing middle class in India and China as one of the main factors contributing to the food crisis" and subsequent global land acquisition (Dogbevi 2008). Countries plagued by natural resource constraints—deficiencies in arable land, safe and viable irrigation sources etc.—with a burgeoning middle class, are the major exploiters of natural resources abroad (Spieldoch and Murphy 2009). These countries are making farmland investments in land-rich developing nations to ensure the food security of their populations. Saudi Arabia, rich in oil money but poor in arable land, is among the countries looking for ways to sustain the appetites of its growing population and increasing incomes (Rice 2009).

In April 2009, Saudi Arabia put \$800 million into a new, state sponsored public company-Saudi Company for Agricultural Investment and Animal Production-to invest in agricultural production abroad (England and Blas 2009). Saudi Arabia imports almost all of its food. In the late 1970s the nation began a wheat production project in the hope of decreasing its reliance on foreign countries for its food security. Recognizing the nation's finite water resources in early 2009, Riyadh committed itself to eliminating its wheat cultivation project by 2016 (England and Blas 2009). Trade restrictions on food export in 2008 left the Saudi government clamoring to meet the dietary requirements of its burgeoning middle class. The \$800 million set aside by the Saudi government will assist private sector investors in financing overseas agricultural production and infrastructure development (England and Blas 2009). This is the Saudi government's most recent move to outsource the nation's food production in an attempt to meet the food requirements of the country's growing population.

The common thread in these land investments is the quest to secure plentiful food and fuel sources to meet the demand of growing populations. Other countries investing in overseas farmland to ensure the future food and fuel security for their burgeoning populations include South Korea, the United Arab Emirates and China. Sudan,

Table 2     Percent change in food prices 2006–1010 and annual changes in commodity pricing							
Date	Food price	Meat price	Dairy price	Cereals price			

Date	Food price index	Meat price index	Dairy price index	Cereals price index	Oils price index	Sugar price index
2006–2007	25.8%	5.1%	66.0%	37.3%	51.0%	-31.8%
2007–2008	24.2%	14.5%	3.4%	43.3%	33.3%	27.0%
2008–2009	-20.8%	-8.3%	-35.5%	-27.3%	-33.5%	41.7%
2009–2010	11.3%	5.9%	36.8%	-5.4%	14.0%	29.9%
% change in commodity prices 2006–2010	37.7%	16.9%	51.3%	35.2%	52.6%	59.5%

% increase calculation = (Commodity price Y2 – Commodity price Y1)/(Commodity price Y1)\*100 FAO (2010) plagued by political instability, is a prime target for international investments in farmland because the majority of land tenure rights rest in the hands of the central government. According to the Guardian newspaper, in "2009 South Korea secured 690,000 ha for wheat production in Sudan (Smith 2009)". The United Arab Emirates and the U.S. based Jarch Capital LLC have also recently acquired large portions of Sudanese farmland-300,000 and 400,000 ha, respectively (Smith 2009). Additionally, as "China is home to 20% of the world's population and possesses less than 9% of the world's farmland," the nation is interested in obtaining food and fuel security from abroad (Xiaoqiang 2009). According to a report by IFPRI, in July 2007, China secured 2.8 million hectares of land in the Democratic Republic of the Congo for a biofuel-oil palm plantation (von Braun and Meinzen-Dick 2009).

Biofuels<sup>3</sup> gaining acceptance as a viable alternative fuel source

Expectations of future financial returns on biofuel production are another factor in increasing investments in the farmland of developing countries (Cotula et al. 2008, 2009). The downturn of the global economy has led many non-traditional investors-private equity and hedge funds, among others-to join in the global scramble for land. One advantage of land investment in developing countries is that it is next to free. In Ethiopia, for instance, the Guardian newspaper states that the "government agreed to allow the Karuturi Company to use 'undesirable' land, 31 miles from the Sudan border rent fee for the first 6 years of occupation" (Rice 2010). Every year after that, until the end of the 84 year contract, Karuturi is obliged to pay a mere 15 birr (\$1.18) per hectare to the government of Ethiopia in order to remain on this plot of land (Rice 2010). Slight increases in the productivity of rented land have the potential to generate large profit margins on agricultural commodities sold abroad. Compounding this profit potential are commitments by global governments-including China, India, Brazil, the US and the EU-to increase available biofuels to offset reliance on petrol used in the transportation sector (Cotula et al. 2008, 2009).

Mandatory biofuels targets set by national governments and high energy prices guarantee a long-term market for biofuels producers. In 2008, the European Union (EU) member states agreed to have renewable energy account for 10% of energy used by the transportation industry by 2020 (Meinzen-Dick and Markelova 2009). In a recent report, the European Commission admitted that it would most likely "import 60% biofuels to meet its 10% renewable target" (Edwards et al. 2008). Similar accounts of increased exploration funds and national biofuel targets are found in Brazil, the US, and China, among others, further compounding the profit potential of biofuel producers and driving global land acquisition (Cotula et al. 2008, 2009).

#### Risks associated with global land acquisition

Risks associated with global land acquisition, left unaddressed, could prevent the actualization of this development opportunity for host nations. Risks to be considered include irreversible natural resource degradation by large-scale, capital-intensive commercial farms, livelihood shortfalls for smallholder-farmers, loss of indigenous farming practices, rising in-country food insecurity, and the potential suffering from the natural resource curse.

#### Irreversible environmental degradation

Natural resource degradation resulting from the acquisition of land to be managed in large-scale agricultural enterprises increases food insecurity and destabilizes the livelihood of current and future generations of rural, agriculturally dependent communities. In a recent report, the World Bank estimated that "natural resource degradation, specifically land degradation, affects 900 million people around the world" (Bojo et al. 2000). If left unbridled, "by 2025, 1.8 billion people will live in nations with absolute water scarcity and two-thirds of people in the world could be subject to water stress" (UN Water 2007).

Governments must ensure the long-term ecological sustainability of natural resources if land investment is to be a development opportunity for host nations. Infrastructure investment commitments by the new land owners or leasees and compliance with sustainable land and water management practice is essential. Land tenure contracts currently being forged are focused on near term commercial agricultural yields and fail to consider the long-term consequences of large-scale, intensive commercial farming (Meinzen-Dick and Markelova 2009). Nations must understand the motivations of foreign investors in farmland acquisition. Most investors are leasing land in Africa because they suffer already irreversibly depleted natural resource stocks in their home nations. This should be a cause for pause for lessor governments. Capital-intensive agricultural practices, typical of the current land acquisition, use large amounts of fresh water resources and depend heavily on fertilizers and pesticides (Spieldoch and Murphy 2009). Over use of pesticides and fertilizers can lead to water contamination

<sup>&</sup>lt;sup>3</sup> "Biofuels are liquid fuels derived from biomass. They are primarily used for transport or heating and are produced from agricultural products. 90% of global biofuels use is comprised of bioethanol from corn or biodiesel. Biofuels use land similar to that used for growing food commodities to provide nutrition to global populations," (Cotula et al. 2008, 2009).

and soil erosion/depletion, threatening the ecosystem and sustainability of rural farming (Spieldoch and Murphy 2009). This further threatens the availability of fertile land and non polluted water resources for the displaced, subsistence based farming communities.

#### Loss of livelihood and indigenous farming knowledge

Farmers displaced by large-scale, capital-intensive farms or plantations with no contract farming option will struggle to recover from economic losses associated with the acquisition of their land. Communities displaced by governmental land appropriation have historically used property as collateral in times of monetary need. The appropriation of customary land for large-scale farm development leaves displaced communities without collateral to secure monetary assistance for land redevelopment, resulting in terminal losses (Spieldoch and Murphy 2009). Those few who are able to secure loans to start over could suffer water shortages from large-scale commercial farm irrigation, resulting in low crop yields and further declines in livelihood generation (Montemayor 2009).

Loss of indigenous farming knowledge is inevitable in the wake of large scale acquisition of indigenous land for commercial farming. To make ends meet when traditional farming means have failed, farmers will resort to employment in the informal economy, working for wages or for food. This transfer from subsistence or semi-subsistence farming to wage labor will result in declines in traditional farming practices. The loss in traditional farming acumen should be viewed as a serious concern for host nations. To protect against this, hostgovernments must institute agricultural based knowledge and technological transfer and indigenous employment policies into their contracts with investors. These policies will ensure that contracting parties invest not only in their own gains, but also in the agricultural sector of the host country.

#### Host country food insecurity

Host nation-to-investor agreements to export all of the food grown on the acquired land in the lessor country to leasing country without the payment of export duties raises concern about a host country's ability to meet the nutrition requirements of its citizenry. Without gainful employment to offset income lost from farm land appropriation to foreign commercial interests, increases in host country food insecurity are inevitable. As shown in Table 1 and Fig. 1, this is particularly worrisome as the greatest net-sellers of land are also the hungriest nations in the world.

#### Suffering the natural resource curse

Mineral rich countries often fall victim to the natural resource curse, i.e. instability caused by conflict over the rights to exploit natural resources. Researchers assert that the natural resource curse afflicts countries that draw the majority of their gross domestic product from their natural resource base—diamonds, oil, timber, etc. (Wenar 2007). Such countries with abundant natural resources grapple with slow growth, civil war and autocratic regimes (Auty 2006; Wenar 2007). Examples include the Democratic Republic of the Congo, Nigeria and Iraq, all rich in oil, but drowning in internal conflict and civil war.

As direct land investment by foreign concerns increases in Africa and arable land becomes increasingly scarce while the rural poor lose their customary user rights to land, should we expect that land rich states will fall victim to the natural resource curse? "Confronting the Oil Curse," a piece by Alan Gelb and Sina Grasmann, suggests that the link between natural resource, human capital and institutional capital are integral to understanding whether or not a country will endure slow growth, or civil war (Gleb and Grasmann 2008). The authors assert that "countries with high human capital and strong institutions can expect to benefit from natural resources," implying that the absence of strong institutions leads to discontent and increases the potential for civil unrest (Gleb and Grasmann 2008). Countries that lease or sell land often suffer from weak governing institutions and insufficient avenues for persons affected by land acquisition to lodge their grievances and seek compensation. This dearth of institutional and human capital will inevitably make many lessors of land vulnerable. As arable land becomes increasingly scarce, governments are likely to see an increase in resistance to land appropriations to corporate interests that may escalate into national instability.

#### Potential benefits of global land acquisition

Macro-economic benefits and potential benefits

The Food and Agriculture Organization estimates that developing nations require \$83–209 billion in annual agricultural investment to satisfy the global food needs of 2050 (FAO 2009a, b). Due to development aid shortfalls and insufficient capacity to finance agricultural development on their own, developing nations will fail to meet the FAO's estimates without the help of foreign investment (FAO 2009b). Therefore, on a macro-level, international land investments in the agricultural development of developing countries should be viewed positively.

Cross-border investment flows of foreign direct investment, through land acquisition, represent unique opportunities for poor developing countries. Benefits of agricultural investment arise from 'capital inflows [and] technology transfer, leading to innovation and productivity increase,

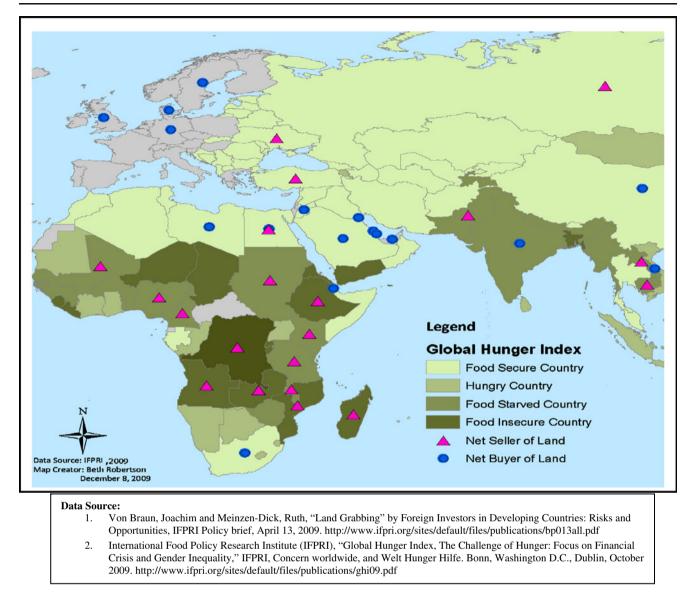


Fig. 1 Land acquisitions from the hungriest nations

upgrading domestic production...[and] employment creation' (Hallam 2009a). Cross-border partnerships could endow developing nations with knowledge of advanced agricultural production practices and farming technology necessary to upgrade production systems in rural areas (Meinzen-Dick and Markelova 2009). But cross-border land investments resulting in "enclaves of advanced agriculture" offer little benefit to the host nations and will result in purely extractive neo-colonialism (Hallam 2009a). In the development of land contracts with foreign investors, governments should negotiate terms that optimize the impact of the economic and knowledge spillover on lessor countries and their local communities.

There are gains to be made from contracts that maintain higher rents for foreign land investment and governments who abandon policies that artificially depress corporate tax rates and export tariffs to lure outside investment. A study on land deals in the Sudan, Angola, Mali and Ethiopia suggest rent fees, often between \$2 and \$10 per hectare, remain low to encourage outside agricultural investment to stimulate the local economy (Cotula et al. 2009). Lease terms often prevent the renegotiation of land rents, which ties countries to artificially depressed land fees for the life of the lease. Similarly, tax revenues have the potential to stimulate growth in the economy and increase social services available to persons displaced by land acquisition. Currently, however, the governments of Madagascar, Mali and Ethiopia, among others, have significant tax incentives to lure foreign investors to the economy (Cotula et al. 2009). In many cases, export taxes have ended all together for these entities, which is a serious concern considering that in the majority of deals all the food grown in the host-country is likely to be exported.

To experience the macro-economic benefit of land investments, lessor governments should collectively establish inter-regional tariff schedules to guide commercial land investments in Africa. Establishing a minimum tax rate and land use tariff fees will enable poor governments to gain monetarily from land investment, by decelerating the interstate race to the bottom. Infrastructure development alone fails to provide enough benefit to recover from land and livelihoods forfeited during land appropriation (Hallam 2009c). In his 2009 piece, David Hallam finds that:

"Studies of the effects of foreign direct investment (FDI) in agriculture show that the claimed benefits do not always materialize and catalogue concerns over highly mechanized production technologies with limited employment creation effects; dependence on imported inputs and hence limited domestic multiplier effects; adverse environmental impacts of production practices such as chemical contamination, land degradation and depletion of water resources." (Hallam 2009c)

Governments must work to establish win-win macroeconomic policy solutions for land investment and practice caution when assessing the long-term benefit of agricultural investment projects.

#### Potential micro-economic benefits

In light of budgetary constraints in poor developing countries, an influx of capital and technology is necessary to stimulate the economic development of rural economies. Investments in agriculture are strongly correlated with modernizations in rural areas (Meinzen-Dick and Markelova 2009). Commercial farms may be bound by contractual obligations to update rural infrastructure, build schools and rural health clinics, and provide employment to a percentage of indigenous persons, decreasing poverty in the long-run (Meinzen-Dick and Markelova 2009). But is this enough? Other than potential infrastructure gain, contractual agreements with commercial investors interested in developing closed systems of advanced agricultural production for export will not contribute to the sustainability of or knowledge transfer to rural areas (Hallam 2009c). The extent of the benefits for the receiving country from land acquisitions should be of primary concern to the hostgovernment, when considering land investment (Hallam 2009a).

For indigenous populations, cultural identities and livelihood generation are tied directly to the land they till. Government and investors' failure to understand this may result in local conflicts, failed agribusiness projects and ultimate investment withdrawal. Contract farming could be the solution to successful agribusiness projects and may convey mutual benefits for investors and smallholder farmers (Cotula et al. 2009).

Opportunities exist for small-scale farmers to experience the spillover effect from international agricultural investments. Contract farming, in which small holder farmers produce commodities for a larger agribusiness, reduces loss of indigenous farming knowledge and imparts the advanced agricultural practices of commercial investors in the agrarian sector of the country through direct knowledge transfer (Kugelman 2009). This system of agribusiness development sustains the income generation opportunities of smallholder farmers and allows them to grow their own crops on the side for subsistence. With a system of contract farming, following the completion of the lease, the host country is endowed with newly established rural infrastructure (electricity and roads, among others) and a rural smallholder farming population with proficiency in advanced agricultural practices. With additional investment, this has the ability to revitalize the agriculture sector of the host nation and avoid local conflicts over land evictions (Manunike 2009). The benefit of this system for investors is that through gainful employment, farmers see the goal of the investor correlated with their interests (Manunike 2009). This is seemingly a win-win approach to agricultural investments for all parties involved. Poor-country governments should negotiate for leases that utilize contract farmers to the fullest extent feasible.

The Varun Agriculture Sarl contract in Madagascar is an example of a successful land investment project based on contract farming. The jointly forged land contract enables Varun Agriculture Sarl to lease 170,931 ha of land for 50 years (Food Crisis and the Global Land Grab 2009). The project affects the thirteen districts in Madagascar. In exchange for the rights to the land, Varun Agriculture Sarl agrees "to establish health centers, schools, training sites, road infrastructure, drinking water, houses and equipment for security guards in the region where it is necessary for the project," (Topmanda 2009). The company agreed to purchase produce cultivated by smallholders on contract from landowners at the prevailing market rates. To meet staffing needs, Varun Agriculture Sarl is committed to recruiting and giving preference to local persons based on their "merits, performance and capabilities," (Topmanda 2009). The Varun Agriculture Sarl land deal does not exist in a vacuum; programs in Uganda and Sudan share contract farming success stories.

A wise, long-term development strategy for capital-poor governments of the developing world engaging in land deals with commercial investors would require investments in infrastructure development by investors and ensure that the majority of commercial farming investments in the country relied on local, contract-based farmers. Such a strategy would accelerate advanced agriculture knowledge, technology transfer, infrastructure development and job creation for the host nation while preserving the indigenous farming knowledge of affected populations.

#### The way forward

There are both risks to mitigate and benefits to optimize in government engagement with the private sector on land investments. The urgent need for agricultural investment in the developing world is non-negotiable. In Africa, underinvestment in agriculture has led to an agricultural sector that is not fully exploited, resulting in poverty, malnutrition and failure to capture the economic development potential of the region (United Nations 2009). Increased investment in the agriculture of a developing country has the potential to raise productivity, meet the nutritional requirements of the population and eliminate poverty. The unbalanced power relationships characteristic in these land-deals make it difficult for host countries to use land transactions effectively for real economic uplift (Spieldoch and Murphy 2009). To mitigate opportunistic and extractive land deals, governments must encourage agricultural investments while concurrently establishing investment policies that minimize threats to indigenous communities (Montemayor 2009). To do this, stakeholders must tend to the following:

#### Government responsibilities<sup>4</sup>

#### Encourage healthy land investments

Agricultural investment by corporations and foreign governments can positively contribute to the economic development of the lessor country. Land deals that are fair and which distribute the benefits of the investment equally between the two engaging parties, with emphasis on assuring benefits that reach rural poor, should be encouraged (Meinzen-Dick and Markelova 2009). Contract farming offers an unparalleled opportunity to strengthen the rural agro-economies of developing nations. Land investors keen to use contract farming for agricultural production should be pursued (Kugelman 2009).

### Establishment of inter-regional tariff schedules on land investments

Lessor governments should collectively establish interregional tariff schedules to guide commercial land investments in Africa. In a recent publication, Cotula et al. note that developing country governments have historically eliminated short-term property taxes, reduced export tariffs and eliminated land use to lure international investment (Cotula et al. 2009). Those opposed to free trade often term this 'the race to the bottom', where developing country governments are unable to escape the poverty trap due to meager benefits from foreign investment. Increased subsidies for biofuel and farmland exploration in the developing world signal a need for a harmonized inter-regional system of tariffs to arrest the race to the bottom characterized by tax incentives and land rent breaks. A common set of coordinated investment incentives for land investments across the continent will enable lessor governments to benefit monetarily from higher export taxes and land use fees. Taxes earned equip national governments with resources to fund social services, infrastructure development, and agricultural extension services to farmers.

## National governments are responsible for internal food security and development

The responsibility for infrastructure development and extension of social services to the poor is the responsibility of the national government and cannot be outsourced to foreign land investors (Kugelman 2009). Governments must be mindful that investors are committed to the expansion of their bottom line. If at any time profit margins fall, investors could pull out of their foreign land investment (Kugelman 2009). Infrastructure commitments by corporate entities, while important, do not replace the government's responsibility to extend development services to its citizenry.

### Extension of land tenure rights to indigenous land occupants

There is a need for land reform in many developing nations. Property in many developing nations, whether formally documented or not, is often occupied by indigenous communities (Kugelman 2009). These communities rely on this land for their food security. Such land, if appropriated by foreign investors runs the risk of depriving subsistence farmers of the ability to feed their families. The extension of land tenure rights to current land occupants, based on indigenous occupancy or customary law, will give land holders a voice in the sale of their customary land (Kugelman 2009).

#### Transparency in negotiations

All relevant stakeholder groups should have access to information regarding the sale or lease of farmland to private or public entities. All stakeholders affected by the sale of commercial farm plots should be consulted prior to completion of a deal, notified immediately after and compensated for their imminent loss of livelihood (Spieldoch and Murphy 2009).

<sup>&</sup>lt;sup>4</sup> The following policy suggestions for host governments were heavily informed by the arguments and policy assertions presented in: Cotula et al. (2009); (Kugelman and Levenstein eds; Kugelman 2009).

## *Effective policies governing international investments in farmland*

At the onset of a land transaction, lessor governments must establish land investment policies to ensure food security for indigenous populations during periods of food crisis. Many current land deals allow the investing entity to export the majority (if not all) of the food grown on lessor country land back to their own country (Montemayor 2009). This type of policy is unacceptable during times of famine on lessor soil. Seller nations must include policies in the ceding of land tenure rights to foreign investors that safeguard against food export during famine (Meinzen-Dick and Markelova 2009). Additional investment policies that lessor governments should address in their contracts with foreign investors should include:

- Investment benefits for rural communities.
- Safeguards against natural resource degradation from short-term farming investments. Specifically, there should be controls of land and chemical use in rural areas that could have negative consequences for future inhabitants of the area (Kugelman 2009).
- Indigenous farming knowledge preservation policies.

#### Contract monitoring, evaluation and enforcement

Governments need to establish a system to monitor and evaluate investment projects in rural areas and enforce agreements. This rubric will ensure commitments made by foreign investors—infrastructure projects, job creation, contract farming, schools etc.—are being honored (Montemayor 2009). In many land transactions, investment commitments are the only substantial gains for receiving nations. Governments need to develop legally binding terms of trade that compel investors to honor their commitments (Kugelman 2009). Enforcement mechanisms must enable both parties to terminate contracts where violation of their monetary or physical commitments occur. While international enforcement mechanisms would be useful, enforcement possibilities are currently limited to the national level.

#### International community<sup>5</sup>

### *Establish an international code of conduct governing land investments*

Foreign investment in the agriculture of developing nations can help to meet short term investment needs and spur positive long-term development benefits. International institutions should work with affected governments and investors to create an international code of conduct delineating guidelines for acceptable land acquisitions in developing nations. This code of conduct would underscore the need for transparency in land transactions. It would discuss the need to involve local people in stakeholder meetings prior to the investment decision (Kugelman 2009). The code would delineate ways for governments to safe-guard against environmental degradation at the hands of short-term investors and guarantee that national policies ensure food security during international food crises. Though this code of conduct would be voluntary, it would be an open source document that could be used by developing country governments to ensure that land deals in their countries maximize the benefit-sharing between the receiving country and the investor (Meinzen-Dick and Markelova 2009). Currently, the Food and Agriculture Organization and the World Bank group are working toward establishing an international code of conduct for international land investments.

### Investors<sup>6</sup>

#### Practice prudence in agricultural investments

Before investing in the land of developing economies, international investors should understand the communities whose land they are appropriating for their commercial farms. Land without formal titles is not always unoccupied. Investors should practice due-diligence and engage local leaders and affected communities to better understand how commercial agricultural investments can positively affect surrounding communities (Kugelman 2009). Much of the appropriated land for farm investments is currently occupied by agrarian communities whose livelihoods rely on the land they till. Evictions will result in hunger and amplify hunger in communities adjacent to the newly acquired corporate plantation. Understanding current practices of livelihood generation and the customary traditions of communities adjacent to the acquired corporate plantations will enable investors to satisfy the demands of the evicted farming communities and thereby mitigate potential conflict arising from land displacements. Community satisfaction, and where possible buy-in, is integral to the establishment of sustainable agri-businesses in the developing world where historical and customary ties to the land are central to indigenous community identity (Kugelman 2009).

<sup>&</sup>lt;sup>5</sup> The following policy suggestions for the international community were heavily informed by the arguments and policy assertions presented in: Meinzen-Dick and Markelova (2009), Kugelman (2009) and Cotula et al. (2009).

<sup>&</sup>lt;sup>6</sup> The following policy suggestions for investors were heavily informed by the arguments and policy assertions presented in publications by: Cotula et al. (2009); Kugelman and Levenstein (eds) and Kugelman (2009)

#### Pursue contract-farming

Where applicable, investors should incorporate local smallholder farmers into their business models. Contract farming enables local farmers to remain on their indigenous land plots and extends a blanket of security for agribusiness. Once local persons see that their interests are tied to the success of the international agribusiness, they will work hard to increase yields and protect the business (Kugelman 2009). Contract farming presents a win-win for investors and stakeholders.

## Concluding remarks: a development opportunity or extractive neo-colonialism?

The need for investment in the agriculture of developing nations has never been greater. The United Nations estimates that the world's population in 2050 will exceed 9 billion people (FAO 2009a). Most of them will be inhabitants of the developing world. One billion people currently suffer from hunger (United Nations 2009). If investment shortfalls continue, this number is likely to expand. In the wake of the financial crisis and with development aid for food security and agricultural development at very low levels, poor country governments are looking to the private sector for agriculture investment.

Nine out of the top ten most food insecure countries in the world are located in Africa (United Nations 2009). Many in these nations rely on food aid to meet a significant share of their food needs. Yet, these countries are also the greatest sellers or lessors of agricultural land to foreign countries and corporations. Violence is likely to erupt at any time in populations suffering from the volatile mix of poverty, food insecurity and disenfranchisement and with their land and livelihood at stake (Meinzen-Dick and Markelova 2009). Therefore, it is imperative to the success of agribusiness and the sustainability of direct foreign investment that governments ensure that populations affected by foreign land transactions are given a voice in land transactions and compensated for the loss of their customary land ties and potential degeneration of their livelihoods from land eviction.

Outcomes of land deals are context specific. They cannot be categorized as inherently extractive and neo-colonialist in nature or as an unmatched opportunity for economic development and poverty alleviation. Rather, the effect of international land acquisition depends on the content of each specific agreement and its implementation. It is a tool that can be used for good or cause very serious harm. The distribution of costs and benefits from land investments is largely dependent on the initial measures in place to safeguard against appropriation of land on which poor rural people depend for their livelihood, guidelines for profit sharing, policies to enforce contract law and avenues for the disenfranchised to seek legal counsel if grievances occur. For international land investment to be a development opportunity for poor countries, governments must consult with relevant stakeholders prior to signing land deals to develop context specific agricultural investment policies tailored to the individual needs of the target community.

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