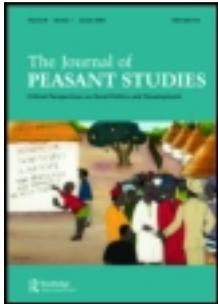


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The international political economy of the global land rush: A critical appraisal of trends, scale, geography and drivers

Lorenzo Cotula

Over the past few years, agribusiness, investment funds and government agencies have been acquiring long-term rights over large areas of farmland in lower income countries. It is widely thought that private sector expectations of higher agricultural commodity prices and government concerns about longer-term food and energy security underpin much recent land acquisition for agricultural investments. These processes are expected to have lasting and far-reaching implications for world agriculture and for livelihoods and food security in recipient countries. This paper critically examines evidence of trends, scale, geography and drivers in the global land rush. While this analysis broadly corroborates some widespread assumptions, it also points to a more complex set of drivers that reflect fundamental shifts in economic and geopolitical relations linking sovereign states, global finance, and agribusiness through to local groups. Only a solid understanding of these fundamental drivers can help identify levers and pressure points for policy responses to address the challenges raised by large-scale land acquisitions.

Keywords: land grab; agriculture; investment; biofuels; food; international political economy; Africa; China

1. Introduction

Recent years have witnessed growing interest in farmland as an economic asset. Large-scale acquisitions of farmland in Africa, Asia and Latin America have made headlines in media reports across the world. These acquisitions involve outright land purchases or, more commonly, long-term leases mainly on government-owned land. It is widely thought that private sector expectations of higher agricultural commodity prices and government concerns about longer-term food and energy security underpin much recent land acquisition for agricultural investments.

Dubbed ‘land grabs’ in the media, land acquisitions have kindled much international debate, in which strong positions are taken on the impacts of such investments on environment, rights, sovereignty, livelihoods, development and conflict at local, national and international levels. Some commentators have welcomed these trends as bearers of new livelihood opportunities in lower income countries, and as an important step towards ensuring food security for a growing world population. Others have raised concerns about the possible social and environmental impacts of large land deals, including loss of land for rural people, and, more generally, about the risk that large-scale investments may marginalise family farming.

This paper critically examines evidence of trends, scale, geography and drivers in the global land rush. While this analysis broadly corroborates some widespread assumptions, it also points to a more complex set of drivers that reflect fundamental shifts in economic and geopolitical relations linking sovereign states, global finance,

and agribusiness through to local groups. Only a solid understanding of these fundamental drivers can help identify levers and pressure points for policy responses to address the challenges raised by large-scale land acquisitions.

Ongoing research by the International Land Coalition (ILC) shows that ‘commercial pressures on land’ are increasing in many parts of the world as a result of multiple forces beyond agriculture – including extractive industries, tourism and natural parks.¹ Such a holistic approach is crucial to understanding the land pressures faced by the rural poor worldwide. However, this essay focuses on agriculture, broadly defined to include agrifood, bioenergy, agro-industrial crops (e.g. rubber) and tree plantations. In agriculture, land is a crucial means of production. On the other hand, extractive industry projects often involve the taking of land, but the primary interest of the company is in subsoil resources. And while extractive industry developments can exacerbate pressures on land, they raise different issues to those at stake in the global rush to farmland. Water is a major driver in recent trends in agricultural FDI – acquiring land in arid and semi-arid areas would be of no use without corresponding water rights. Some of the discussion of the drivers developed in this paper with regard to land would also be relevant to water. However, water is not explicitly covered as it is discussed in another paper, by Philip Woodhouse (Woodhouse 2012).

Finally, this contribution does not discuss the social, environmental and economic implications of land deals for recipient countries and communities. There is a growing body of case studies on these aspects, carried out by, among others, the World Bank (Deininger *et al.* 2011), the International Institute for Environment and Development (IIED) (Sulle and Nelson 2009, Nhantumbo and Salomão 2010), the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) (Görge *et al.* 2009), the International Land Coalition (ILC) (Anseeuw *et al.* forthcoming), the Center for International Forestry Research (CIFOR) (e.g. German *et al.* 2011), the Centre de Coopération Internationale en Recherche Agronomique pour le Développement (CIRAD) (e.g. Burnod *et al.* 2011), civil society groups (e.g. FIAN 2010), the Oakland Institute (Oakland Institute 2011), and in the run up to an international conference hosted by the Institute for Development Studies and this journal.² A legal analysis of a number of contracts for land acquisitions is also available (Cotula 2011a).

The next section discusses scale and geography; Section 3 analyses the main drivers underpinning the global land rush, and Section 4 discusses the implications of this paper’s analysis.

2. Scale and geography

2.1. How much land has been acquired, and where?

Three years after the media spotlight turned on large-scale land acquisitions, a growing body of evidence is emerging on the scale, geography, players and key characteristics of the phenomenon. Sustained media reporting has played a key role in raising public awareness about large-scale land acquisitions, and has generated an impressive amount of data. Online databases of media reports run by GRAIN (farmlandgrab.org 2011)

¹Commercial Pressures on Land. International Land Coalition. Available from: <http://www.landcoalition.org/cpl> [accessed on 25 August 2011].

²Scores of papers available from the International Conference on Land Grabbing: http://www.future-agricultures.org/index.php?option=com_docman&task=cat_view&gid=1552&Itemid=971 [accessed on 25 August 2011].

and the ILC (2011) contain extensive information on publicly known deals.³ This information provides useful insights on trends in the global land rush.

Quantitative analyses drawing on media-based datasets reach somewhat different findings, but present a broadly consistent picture in terms of the significant scale of the phenomenon. Friis and Reenberg (2010) reviewed the media reports featured on the blog of the ILC for the period 2008–2010. They found that land deals in Africa alone affected between some 51 and 63 million hectares (ha). An inventory of media reports on the GRAIN blog, carried out by the World Bank (Deininger *et al.* 2011), documented land acquisitions for 56.6 million ha worldwide – roughly the size of a country like Ukraine – over a period of one year between 2008 and 2009. According to this inventory, two-thirds of the land area transacted globally was in Africa, with Southeast Asia also being an important recipient area (about 40 million ha in Africa, and more than eight million in Southeast Asia). Finally, a ‘Land Matrix’ featuring land deals reported in the media or discussed in published research is being established by an international consortium of organisations led by the International Land Coalition and Oxfam. Differently from earlier media-based inventories, the Matrix also involves triangulation of reported deals. Drawing on preliminary findings from the Matrix, Oxfam (2011) refers to reported deals for 227 million ha worldwide over the period 2001–2010. Of these, deals for about 67 million ha have been cross-checked through triangulation (Oxfam 2011). Similar figures appear in Anseeuw *et al.* (forthcoming), drawing on the same Matrix dataset. While at first sight the Matrix figure for reported deals may appear higher than earlier estimates, this is not so once two circumstances are considered. First, the period covered is significantly longer than that of the other two inventories, though deals farther back in time may be expected to be significantly under-reported (not least because media attention really took off from 2007 onwards). Second, in addition to agricultural investments, Matrix figures include mining and timber concessions as well as land acquisitions for tourism; these sectors are excluded from the other two inventories. It is also likely, however, that the Matrix dataset greatly underestimates mining, forestry and tourism concessions due to the lower priority that seems to have been attached to these sectors and perhaps the lower levels of media interest. Table 1 presents key features and findings of these three inventories.

Media reports suggest that Sudan, Ethiopia, Madagascar and Mozambique are among the key recipients of land-based investments in Africa. Outside Africa, Southeast Asia (Cambodia, Laos, Philippines, Indonesia) and parts of Eurasia (e.g. Ukraine and Russia) appear to be significant recipient countries. For example, based on media reports (or research drawing on media reports), Visser and Spoor (2011) documented the significant level of FDI interest in farmland in Ukraine, Russia and – to a lesser extent – Kazakhstan. Argentina and Brazil are relevant countries in Latin America, though acquisitions here may more commonly involve buying shares in companies that hold land, rather than buying land directly.

However, media reports are not always reliable, and data from these sources must be treated with caution. Also, media reports tend to emphasise global over national processes. For instance, attention usually focuses on international players, to the detriment of reporting acquisitions by national elites. Similarly, the reported regional distribution of deals may reflect the strong media interest in African deals as

³See <http://www.commercialpressuresonland.org/> and <http://farmlandgrab.org/> [accessed on 25 August 2011].

Table 1. Aggregate land areas acquired, based on media reports.

Land area (ha)	Coverage	Time period	Source	Method
51–63 million	27 countries in Africa	2008–2010	Friis & Reenberg (2010)	Systematic inventory of media reports included in the ILC blog
56.6 million	Global (81 countries covered)	1 October 2008–31 August 2009	Deininger <i>et al.</i> (2011)	Systematic inventory of media reports included in the GRAIN blog
About 67 million	Global	2001–2010	Oxfam (2011); Anseeuw <i>et al.</i> (forthcoming)	Systematic inventory of media and research reports, triangulated through a cross-checking process; includes mining, forestry and tourism

Source: Toulmin *et al.* (2011), with changes and integrations.

much as genuine, real-world differences in volumes of transactions. For example, some African countries that are or were recipients of food aid have attracted extensive media reporting (e.g. Ethiopia and Sudan). Anecdotal evidence from private sector operators suggests that there has been strong investor interest in Eastern Europe, Australia or North America, and that investor circles view Africa as a ‘frontier’ rather than mainstream market. In other words, it is possible that media reports have overemphasised the role of Africa as a recipient region.

A number of systematic national inventories of approved land deals based on in-country research have also been carried out by IIED together with FAO and IFAD (Cotula *et al.* 2009), by GIZ (Görge *et al.* 2009) and by the World Bank (Deininger *et al.* 2011). Typically, these inventories draw on data from government agencies responsible for investment, land or agriculture, and on interviews with third-party sources to cross-check data. Figures from these inventories tend to be more conservative than media-based figures. National inventories must be treated with caution, however, as they may underestimate scale due to constrained data access and exclusion of deals still under negotiation. Defining what constitutes an ‘approved’ deal is also not straightforward – for example, where a Convention of Establishment has been signed that commits the host government to make land available, but no land lease has actually been granted, or the lease only concerns a smaller land area. Conversely, some contracts allow the investor to acquire additional land in future if certain conditions are in place. These difficulties may partly explain discrepancies among datasets – together with conflicting data sources. For example, while land ministries tend to have figures for lands actually transferred, investment promotion agencies under pressure to show success in attracting investment may refer to the usually larger land areas featured in the MoU or business plan. More generally, most existing systematic inventories cover the period ending in 2009, and are therefore rapidly becoming outdated.

Aggregate figures for approved land deals in selected countries based on systematic national inventories through in-country research are presented in Table 2. Methods used in the inventory exercises differed somewhat. For example, Cotula

Table 2. Aggregate land areas acquired in selected countries (ha).

Source	Deininger <i>et al.</i> (2011), 2004–2009	Görgen <i>et al.</i> (2009)	Cotula <i>et al.</i> (2009), 2004–2009	Media sources as compiled by Friis and Reenberg (2010), 2008–2010
Country				
Cambodia	958,000	943,000		
Ethiopia	1,190,000		602,760	2,892,000–3,524,000
Ghana			452,000	89,000
Lao PDR (two provinces)		417,075		
Liberia	1,602,000			421,000
Madagascar		1,720,300	803,414	2,745,000
Mali		159,505	162,850	2,417,000
Mozambique	2,670,000			10,305,000
Nigeria	793,000			
Sudan	3,965,000			3,171,000–4,899,000

Source: compiled by the author based on datasets cited in the table.

Notes: World Bank data for Liberia includes renegotiations of pre-existing concessions. In Ghana, Cotula *et al.* (2009) data refers to land-based investments registered with the Free Zones Board only; leases may be concluded directly with customary chiefs and are therefore difficult to track in a systematic way.

et al. (2009) only include data for projects above 1,000 ha, and Görgen *et al.* (2009) figures refer to land ‘demanded’ – not necessarily approved deals. Deininger *et al.* (2011) data for Ethiopia includes land allocations by regional government agencies, while Cotula *et al.* (2009) only include allocations by federal government agencies and by one regional government (Oromia). Where available and for comparative purposes, Table 2 also includes country-specific figures based on media reports, as compiled by Friis and Reenberg (2010).

Additional quantitative evidence not featured in Table 2 includes an official inventory of land acquisitions in Mali’s Office du Niger area (Office du Niger 2009), which is where land acquisitions in Mali are concentrated according to country-wide inventories (Cotula *et al.* 2009, Görgen *et al.* 2009). This official compilation provides higher figures than those emerging from research-based inventories, though it does not indicate timeframes. Its total figure of 242,577 ha includes 49,304 ha leased by the Office du Niger authority and 193,273 ha promised by the central government through Conventions of Establishment (for which the Office du Niger will then have to allocate land leases). According to Office du Niger (2009), letters of intent were also issued for 402,682 ha, but these expire if the investor does not undertake feasibility studies within a year, and unfruitful expiry is reportedly common (a circumstance that seems to be confirmed by the roughly ten-to-one ratio between areas under letters of intent and actual leases). In Senegal, Faye *et al.* (2011) documented land acquisitions for a total of 409,363 ha, mainly drawing on a literature review. Fieldwork in Ghana by Schoneveld *et al.* (2010) documented land acquisitions for biofuels only totalling 1,075,000 ha. However, none of the nine projects covered by Schoneveld *et al.* (2010), out of a total of 17 identified by that research, had actually obtained leasehold titles and would therefore be considered as ‘approved’ under the Cotula *et al.* (2009) inventory.

With some important exceptions (Ghana, Liberia, Sudan), research-based figures for 2004–2009 are much lower than those suggested by media reports published in

the period 2008–early 2010, even using top-end inventory figures. For example, about 250,000 ha have been acquired in Mali (about 650,000 ha if one-year letters of intent are included), compared to media reports of 2,417,000 ha; 1,190,000 ha in Ethiopia, compared to a media-based figure ranging between 2,892,000 and 3,524,000; and 2,670,000 ha in Mozambique, compared to media reports of 10,305,000 ha. The figures of Deininger *et al.* (2011) for Liberia include renegotiations of pre-existing concessions, which may explain the discrepancy with media reports.

Also, although the size of single land acquisitions can be very large (e.g. a 220,000-ha project in Liberia and two 100,000-ha projects in Ethiopia and Mali⁴), the average sizes of projects above 1,000 ha are much smaller than what is suggested by media reports: in Ethiopia a mean of 7,500 ha and in Mali a mean of 22,000 ha (figures based on data collected for Cotula *et al.* 2009). These figures can be contrasted with the average sizes suggested by media reports: a mean ranging between 111,000 and 135,000 ha for Ethiopia and of about 186,000 ha for Mali.⁵ Deininger *et al.* (2011) also found that large areas for individual deals are significantly below the scale suggested by media reports, though that report also found that land area size distribution was heavily skewed. In Ethiopia, for instance, five large projects accounted for half the land area leased out by the government (Deininger *et al.* 2011).

Even in the larger deals, implementation usually begins on a much smaller scale, and is phased up to full capacity over relatively long periods of time. For example, a 100,000-ha investment contract in Mali has resulted in an actual lease for 25,000 ha (Office du Niger 2009), with upscaling being subject to successful implementation. In addition, many approved deals have had only limited implementation, often due to greater-than-expected difficulties on the ground or to difficulties in financing (Anseeuw *et al.* forthcoming; and, for examples of biofuels projects in Mozambique and Tanzania, see Nhamumbo and Salomão 2010, and Sulle and Nelson 2009, respectively). Deininger *et al.* (2011) found that, in Mozambique, more than 50% of approved projects had not started any activity or were significantly behind schedule. Even so, deals approved but not implemented may have significant opportunity costs and may exacerbate local land pressures, as alternative land uses are prevented or delayed.

The figures presented in Table 2 are not of great help in analysing the international distribution of land acquisitions. Even in empirically grounded systematic inventories, country selection was much informed by media-based perceptions of geographic distribution – key recipient countries were usually deliberately targeted. It is possible that other countries are experiencing substantial land acquisitions but are falling below the media radar. The above-mentioned finding by Faye *et al.* (2011) that 409,363 ha have been acquired in Senegal is a case in point.

Media- and research-based datasets do not fully capture how much land is being acquired in ways other than direct land acquisition for greenfield investments. Conversations with private sector operators suggest that many investors prefer to take over the management of existing farms, which were often established or run by

⁴Contracts available from LEITI (2011) and farmlandgrab.org (2011).

⁵Mean calculated by the author on the basis of aggregate land areas and number of reported deals compiled by Friis and Reenberg (2010).

parastatals, and to rehabilitate existing irrigation and other infrastructure. For example, a South African sugar company has been taking over government estates in several Southern African countries since the 1990s (Richardson 2010). Some deals reported in the media may refer to takeovers of existing plantations, rather than new land acquisitions, while some such takeovers may not be reflected in media or country-based inventories. A related corporate strategy to access land involves acquiring equity participations in companies that already have plantations. Conversations with private sector operators indicate that this strategy has been used by some agribusiness companies that are expanding from a particular segment of the value chain (e.g. traders, processors) to agricultural production. In principle, the takeover of existing farms or of companies controlling existing farms does not involve new land acquisitions, though some takeovers of existing plantations are for larger areas than the original farm: for example, the above-mentioned deal in Liberia concerns a pre-existing 120,000-ha farm and a new land allocation of 100,000 ha.

While media reports appear to overestimate scale compared to figures based on in-country research, national inventories confirm that the phenomenon is massive and growing. According to World Bank data (Deininger *et al.* 2011), about ten million ha were acquired in five African countries alone (Ethiopia, Liberia, Mozambique, Nigeria and Sudan) in a five-year period ending in 2009. Although quantitative inventories suggest that acquired land areas usually account for relatively small proportions of land suitable for rain-fed agriculture in any given country (Cotula *et al.* 2009), the effects of land acquisition processes on competition for land are increased by two factors.

First, despite much rhetoric on targeting ‘marginal’ lands, investor interest often focuses on the best land in terms of water availability and irrigation potential, soil fertility, proximity to markets or availability of infrastructure. For example, land acquisitions in Mali are heavily concentrated in the irrigable areas of the Ségou Region (Cotula *et al.* 2009, Görden *et al.* 2009). Similarly, investor interest in Senegal has focused on the high-irrigation potential areas of the Senegal River valley (Faye *et al.* 2011). Initiatives to support agricultural development corridors in Mozambique (Beira Agricultural Growth Corridor initiative) and Tanzania (Southern Agricultural Development Corridor of Tanzania) also suggest that investor interest may concentrate along strategic transport and communication axes (Kaarhus 2011). In Mozambique’s Manica Province, which is located on the Beira Corridor and has long experienced interest from outside commercial agriculture players due to its proximity to Zimbabwe, data provided to the author by the provincial cadastral office in early 2010 suggests that approved land leases increased from 562 ha in 2007 to 21,334 ha in 2008 and 58,880 ha in 2009, while applications for 367,165 ha were pending as of January 2010. Some of the reports published by the ILC also suggest that much investor interest targets higher-value lands in peri-urban areas, for example with regard to more fertile land in river-basin marshlands near the Rwandan capital Kigali (Veldman and Lankhorst 2011, Anseuw *et al.* forthcoming).

Second, while media attention has focused on agriculture for food or fuel, pressures on land are growing as a result of a wider set of factors – both endogenous, such as strong demographic growth in many recipient countries, and exogenous, like investments in tree plantations or agro-industrial crops like rubber, and, outside the agricultural sector, in petroleum, mining and tourism. Globally, tree plantations are expanding fast (at a rate of 2.5 million ha per year in 1990–2005), and this expansion

is likely to continue in future (Deininger *et al.* 2011). As will be discussed, this trend is partly driven by the expansion of biomass energy capacity in some major energy consuming countries, for example through the actual or planned construction of new energy plants fired with woodchips and wood pellets in some European countries (Cotula *et al.* 2011). Carbon markets are a growing driver for land acquisitions involving forest conservation and/or tree or biofuel plantations.⁶ In the latter cases, carbon credits provide a complementary revenue stream to cash flow from sales of wood or feedstock.

The relevance of natural resource investments outside the agricultural sector is illustrated by both quantitative and qualitative data. In Liberia, for example, in addition to the 1,602,000 ha acquired through farmland concessions, mining exploration or development concessions have been granted for 1,195,894 ha since 2004.⁷ And the case of a failed 30,000-ha biofuel project in an area of Mozambique where villagers were being resettled from a newly established natural park illustrates how, from the perspective of local people, farmland acquisitions are only one of the multiple sources of pressure (FIAN 2010, Nhantumbo and Salomão 2010).⁸

2.2. *Where do investments come from?*

Media attention has focused on government-backed entities from the Gulf and East Asia and on Western investment funds as the main land acquirers. However, empirical research highlights the central role of national elites in national acquisitions (Cotula *et al.* 2009, Görgen *et al.* 2009, Deininger *et al.* 2011). In Ethiopia, for example, domestic investors account for over 60% of the land area acquired in the period 2004–2009.⁹ The World Bank study found that nationals accounted for 97% of the land area acquired in Nigeria, and for about half or more in Sudan (78%), Cambodia (70%), Mozambique (53%) and Ethiopia (49%) – though only 7% in Liberia (Deininger *et al.* 2011). Similarly, Faye *et al.* (2011) found that in Senegal acquisitions by nationals accounted for 61% of acquired land areas.¹⁰

Nationals have also been acquiring land in countries that have received less interest from international investors. A study from Benin, Burkina Faso and Niger found that over 95% of the investors involved in land deals were nationals, including professional farmers and urban groups like civil servants, traders and politicians (Hilhorst *et al.* 2011). While the average size of these plots is very small relative to some international deals (the average size was 85 ha), these farms are still considerable relative to local average plot sizes (Hilhorst *et al.* 2011), and the aggregate land area acquired by many small deals can be larger than that involved in fewer, larger deals (as suggested by the findings of the inventories).

The diaspora – local nationals living overseas – is also a player in land acquisitions (Anseeuw *et al.* forthcoming, Zoomers 2010). This is not a new

⁶On carbon markets as a driver for land acquisitions in Mozambique, see Nhantumbo (forthcoming). One of the contracts analysed by Cotula (2011a), from South Sudan, is for a tree plantation and carbon credit project.

⁷Author's calculation based on contracts database available at LEITI (2011). Data include renegotiation of existing concessions.

⁸For a discussion of natural parks as a new frontier of enclosure and privatisation, see Peluso and Lund (2011).

⁹Calculated by the author based on data reported in Cotula *et al.* (2009).

¹⁰Calculated by the author based on data reported in Faye *et al.* (2011).

phenomenon; use of international remittances to acquire land in the home countries has been documented for a while (see for example Cotula and Toulmin 2004). It is difficult to quantify the relative scale of this phenomenon – it has received very little media attention and it was not fully covered by the in-country inventories. Land contracts published by the government of Ethiopia in May 2011 (for a total of 350,099 ha, which is substantially lower than the figures from research-based inventories) include several leases involving the diaspora (6 out of 23), though the aggregate land area acquired by international migrants was small (less than 5% of the total).¹¹

Where foreign investment is at stake, much of it is intra-regional – a circumstance highlighted by research carried out by the ILC (Anseeuw *et al.* forthcoming). In the Mekong region, intra-regional investment from ASEAN countries (Vietnam, Thailand) and from China dominates land acquisitions in Lao PDR and in Cambodia (Görge *et al.* 2009, Ravanera 2011). In Africa, South Africa plays a key role in investment flows relating to land. For example, AgriSA, a body representing commercial South African farmers, is reported to have acquired 200,000 ha of land in the Republic of Congo, and to be negotiating with several other African governments (Hall 2011). South African sugar companies have acquired land in several Southern African countries, and more recently elsewhere (Richardson 2010, Hall 2011). Libya has also been involved in some large land acquisitions in sub-Saharan Africa – including Liberia and Mali.¹²

Where cross-regional foreign investment is involved, evidence points to Europe and North America as key regions of origin, in addition to the more publicised role of Gulf states (Saudi Arabia, UAE, Qatar), East Asian countries (China, South Korea) and India. Investment from different regions is distributed unevenly, with some investor countries preferring some recipient countries over others in light of considerations ranging from geographical proximity, to cultural and political links, through to perceived land availability or market potential – as illustrated by Middle Eastern investments in a band of recipient countries around the Gulf (Sudan, Pakistan, Central Asia).

Western companies have been a key player in the global land rush. They are dominant players in biofuels. For example, all of the biofuels projects reviewed by Nhantumbo and Salomão (2010) and by Sulle and Nelson (2009) in Mozambique and Tanzania, respectively, were run by European companies, though in one case capital appeared to be mainly held by South African interests. Similarly, Visser and Spoor (2011) documented the key role played by European (UK, Swedish, Danish, German) companies in farmland acquisitions in Russia, Ukraine and Kazakhstan. Western companies also seem to lead renewed interest in tree plantations for biomass energy (Cotula *et al.* 2011). And a recent survey found that most investment funds involved with farmland investments are based in Europe and North America (OECD 2010), a circumstance that is confirmed by Buxton *et al.* (forthcoming).

On the other hand, the role of some Middle Eastern or East Asian countries seems to have been overstated or misunderstood. Middle Eastern operators have certainly been active participants in the global land rush. Saudi Arabia is the largest investor country in Sudan, accounting for about half the land area acquired by

¹¹The contracts were accessed on 12 May 2011 from EAPortal (2011) the link was no longer working in late August 2011.

¹²Contracts available from LEITI (2011) and farmlandgrab.org (2011).

foreign investors in Sudan (Deininger *et al.* 2011). However, Sudan is the only country in the World Bank's inventories where Middle Eastern countries accounted for a majority of foreign projects (Deininger *et al.* 2011). And while there have been reports in the media and in some studies that Kuwait has been a leading land acquirer, there is no real evidence of any actual land deal involving the Kuwait Investment Authority.

South Korea has also featured prominently in public discourse, but this seems mainly due to a reported very large deal by a South Korean company in Madagascar; this deal failed. Evidence suggests that South Korea has been active in land deals in Southeast Asia, for example in the Mekong Region (Görge *et al.* 2009) and in Indonesia (Cotula *et al.* 2011); but media reports seem to vastly overstate South Korea's role in the global land rush.

China is an active player in the global land rush, but again it is possible that public perceptions overstate its role, especially with regard to Africa. China does have a 'Going Global' policy that promotes investment overseas, which is further discussed below. China is the main country of origin for land-based agricultural FDI in Cambodia and Lao PDR, particularly for rubber and rice, with investor countries like South Korea, Thailand, the US and Vietnam following suit (Görge *et al.* 2009). China is reportedly active in the Asian part of Russia (while European investors dominate farmland investments in the Western Black Earth area of Russia and Ukraine; Visser and Spoor 2011). Media reports of land acquisitions in Africa by Chinese government-controlled or private operators have multiplied since a high-level China-Africa conference in 2006. The important role of China is therefore likely to be reflected in datasets that significantly rely on media reports, like the Land Matrix, discussed above.¹³ However, beyond media reports, hard evidence of a key role played by China in land deals in Africa has so far been more difficult to come by. In Ethiopia, officially disclosed contracts include one deal with a Chinese operator (for 25,000 ha, i.e. about 7% of the total land acquired through the contracts disclosed).¹⁴ A Chinese deal has also been documented in Mali, involving a 20,000-ha extension of an existing sugar cane plantation (Cotula 2011a). Conversations with informed stakeholders suggest that China is also active in Sudan, for example in connection with sugar cane. But overall, Chinese companies operating in Africa seem more interested in subsoil resources – and, with regard to agriculture, in a range of upstream and downstream business opportunities (Bräutigam 2011), including, for example, using joint training centres as an entry for the distribution of seeds and other inputs (Buckley 2011).

On the other hand, Southeast Asian companies have received far less media attention for their investments in Africa, but have been very active – as illustrated by two 220,000-ha palm oil plantations by companies from Singapore and Malaysia (Reuters 2011a).¹⁵ Indian companies have also been active. Among the contracts disclosed by the Ethiopian government in 2011, eight (out of 23) are with Indian companies, constituting a staggering 71% of the aggregate land areas acquired through the contracts disclosed.¹⁶ It must be borne in mind, however, that the

¹³Given China's substantial involvement in extractive industry investments in Africa, the relative importance of China's role in the Land Matrix is also likely to be affected by the inclusion of mining in the Matrix dataset.

¹⁴Author's calculations based on data from EAPortal (2011).

¹⁵One of the two deals is available from LEITI (2011).

¹⁶Author's calculations based on data from EAPortal (2011).

disclosed contracts only account for about 30% of the land area acquired according to the World Bank inventory, which covers a longer timeframe (Deininger *et al.* 2011). It is possible that Indian contracts featured particularly prominently in the official release. India's role in land acquisitions in Ethiopia is borne out by evidence from other countries. In Madagascar, a 230,000-ha deal involved an Indian company (Ullenberg 2009), though it is not clear whether this deal is going ahead. Rowden (2011) suggests that more than 80 Indian companies have invested about US\$ 2.4 billion in buying or leasing plantations in Africa, for instance in Ethiopia, Kenya, Madagascar, Senegal and Mozambique, and specifically lists 20 examples.

Discussion of investor origin has usually focused on the land acquirer. However, the implementation of large land deals typically involves a range of players – possibly including lenders, insurers, contractors and suppliers. Therefore, the nationality of the land acquirer does not fully represent the geography of the interests at stake. A large Libyan deal in Mali reportedly involved contracting out construction work to a Chinese company, for example. Similarly, South African consulting engineers have been involved with contracts to build sugar mills and ethanol plants in different parts of Africa (Hall 2011). And some European or North American farmland investments in Africa involve leveraging agricultural know-how from Brazilian expertise (OECD 2010). Lenders and insurers may be located elsewhere. In addition, acquiring companies may be headquartered in a country, but capital mainly sourced from other countries. For example, several biofuels companies active in Africa are listed on London's AIM – which is 'the London Stock Exchange's international market for smaller growing companies' (AIM 2011); but capital invested in these companies may originate from all over the world. So different geographies of interests may be involved in a single investment project.

In addition, borderlines between international, regional and national investments are fluid. Some African countries act as strategic transit countries through which investments from outside the region are channelled into third African countries. In particular, some investments are channelled through South Africa, due to geographical proximity and established expertise in African agriculture. For example, a UK-based asset management firm acquires and runs its land-based investments in Africa through a joint-venture company incorporated in South Africa. This company has operations in Mozambique, Swaziland, South Africa, Zimbabwe and Zambia (EmVest 2011). In addition, in 2006 a UK food and retail conglomerate acting through a subsidiary completed the purchase of a 51% stake in a South African sugar company that has ongoing operations in South Africa, Malawi, Zambia, Swaziland, Tanzania and Mozambique (Associated British Foods plc 2010, AB Sugar 2012a, 2012b, Illovo Sugar 2011). There have also been reports of an emerging partnership between China and AgriSA for collaboration in land-based investment in Africa (Hall 2011).

Mauritius also seems to be a strategic transit country, most likely due to its tax regime¹⁷ and its sizable number of bilateral investment treaties concluded with other African countries (so that investments in these third countries channelled via Mauritius would be protected by applicable investment treaties).¹⁸ The contract for a land deal in Mozambique, which is publicly available on the Oakland Institute

¹⁷CAS (2011) lists Mauritius among offshore financial centres with regard to taxation.

¹⁸Eleven of the 23 publicly available BITs signed by Mauritius are with African countries; see UNCTAD (2011).

website (Oakland Institute 2011), involves companies registered in Mauritius. The role of Mauritius is also linked to that government's efforts to attract foreign capital to finance the acquisition of land in Africa (mainly Mozambique) so as to ensure the country's long-term food security. These efforts have reportedly attracted interest from Australian investors acting through a Singapore-based vehicle (GRAIN 2009, Reuters 2010).¹⁹ Another recent deal in Mozambique by a Mauritius-based firm in partnership with a UK agribusiness was recently reported in the media (Reuters 2011b).

Similar to the relationship between international and intra-regional investment, the borderline between national and foreign investment may also be blurred (Anseeuw *et al.* forthcoming). As many foreign investors operate through a locally incorporated subsidiary, it is difficult to assess corporate control of national companies. Writing about Madagascar, Burnod *et al.* (2011) show how national operators may provide intermediation services to help foreign investors acquire land, for example by assisting with navigating formal procedures or negotiating deals with local communities. It is also possible that national elites may be acquiring land with a view to then entering into an agreement with a foreign investor.

2.3. *Governments or companies?*

While data on the nature of the investors remains limited, available evidence suggests that private companies, rather than government entities, account for much land acquisition, though government policy plays a crucial role in supporting agribusiness-led acquisitions. A systematic inventory of media reports carried out by the World Bank (Deininger *et al.* 2011) found that agribusiness accounted for the largest share of investors, with investment funds also being key players. This picture is borne out by national inventories based on in-country research. For example, private agribusiness deals account for about 90% of the aggregate land area acquired in Ethiopia, Ghana, Madagascar and Mali, with government-owned investments making up the remainder (calculated on the basis of data generated for Cotula *et al.* 2009).

However, the divide between private and government-backed land deals should not be overestimated. The home country governments of investors can play a major supportive role for private sector-led initiatives, providing diplomatic, financial and other support to private deals; the role of public policy in supporting land deals is further discussed below. Also, the very borderline between public and private investors may be fluid, as the implementation of deals signed between governments may be driven by private operators. For example, a deal between the governments of Syria and Sudan concerning an agricultural investment in Sudan enabled the government of Syria to delegate implementation to the private sector, subject to this being cleared with the government of Sudan (this contract is discussed in Cotula 2011a).

The Chinese case illustrates how the boundaries between 'state' and 'non-state' enterprises may be fuzzy. There are two aspects to this discussion: state ownership and state influence (Cotula *et al.* 2009). In China, corporations emerging from the centrally planned economy such as COFCO (China National Cereals, Oils and Foodstuffs Import and Export Company) are clear state-owned enterprises: senior

¹⁹Mauritius has a bilateral investment treaty with Singapore.

staff are appointed by the state, and chief executive officers have ministerial level rank. In other cases, however, it is less easy to distinguish whether a Chinese firm is 'public' or 'private'. Many companies do not disclose clear information on equity structure, which makes it difficult for outsiders to be precise about ownership. An apparently private company may be controlled by a state-owned, unlisted parent company. In addition, there is likely to be significant state influence over strategic private firms, as private companies may flourish because of their formal and informal links to key state agencies. Such companies benefit from access to special credit lines, tax breaks, and possibly favourable interpretation of regulations and priority in allocation of key contracts (Cotula *et al.* 2009).

Where home governments are directly involved in land acquisitions, they usually rely on investment vehicles that are not under direct civil service control, such as state-owned enterprises and sovereign wealth funds (SWFs). More rarely, governments have acquired land abroad directly. For example, two large land deals in Mali and Sudan were signed by the ministries for agriculture of the host and home country governments (both contracts are discussed in Cotula 2011a).

Contrary to some public perceptions, borderlines between the motivations driving private companies and state-owned enterprises or SWFs are not clear-cut. Some commentators see SWFs as mainly motivated by public policy concerns, particularly with regard to national food security. But SWF managers are also likely to be interested in returns through capital appreciation and agricultural production. Also, in recent debates about concerns that the growing role of SWFs in strategic sectors of some Western economies might be manipulated for political ends, SWFs have pointed to their track record of market-based operations, and two Middle Eastern SWFs issued a statement that formally disavowed 'geopolitical goals' (Cohen 2009).

3. Drivers

3.1. A brief historical contextualisation

Large-scale acquisitions of land are not new. In the nineteenth and twentieth centuries, many agricultural investments in developing countries, led by companies based in Europe, the United States and Japan, involved the establishment of large-scale plantations. Yet, from the 1960s onwards, with decolonisation and the ensuing nationalisations in Africa, and with land redistribution programmes in some Latin American countries, agribusiness companies shifted away from the plantation model, and moved towards developing long-term contractual relationships with local suppliers (UNCTAD 2009). Increasing unionisation of estate labour forces and stricter labour legislation also encouraged a move away from plantations (Tiffen and Mortimore 1990).

In addition to political factors, economic forces prompted the shift away from direct involvement by agribusiness in production. The distribution of risks and returns plays a crucial role in business decisions about the degree of vertical integration. For much of the past few decades, agricultural value chains have tended to concentrate returns in processing and distribution, while the risks fell mainly on primary production (Selby 2009). This situation created incentives for agribusiness companies to concentrate on activities upstream (provision of inputs, seeds and machinery) and downstream (processing and distribution), and to source agricultural production from local suppliers. Sourcing produce through long-term contracts

rather than plantations also offered greater flexibility in responding to fluctuating commodity prices – as renegotiating or even terminating contractual relations is easier than divesting land ownership (Tiffen and Mortimore 1990). These factors led to a shift away from plantations in contexts as diverse as banana farming in Central America or tea in East Africa (UNCTAD 2009).

The evidence discussed in the previous sections suggests that a new shift is taking place – toward greater agribusiness involvement in agricultural production, through direct land acquisitions. The drivers underpinning this shift involve a combination of both policy and market forces, and are discussed in this section.

3.2. Market forces – Changing global supply and demand for agricultural commodities

There are widespread perceptions that population growth, changing diets, growing energy demand and increasing rates of urbanisation (which expand the share of the world's population that depends on food purchases) are pushing up global demand for food and fuel from agriculture. Given supply constraints in parts of the world, including declining production and productivity (in the Gulf, for example), this is likely to put upward pressure on agricultural commodity prices in the longer term, and create new incentives to acquire land as an investment option.

From the early 1980s to the early 2000s, food prices were on a long-term trajectory of decline, reflecting the expansion of agricultural frontiers and agricultural trade, increasing concentration in the retail sector that generated economies of scale and drove down farm gate prices, as well as innovations in production. However, the food price hike of 2008 shook the assumption that the world will continue to experience low food prices. Maize and wheat prices doubled between 2003 and 2008 (von Braun 2008). Grain and other food prices started dropping after the summer of 2008, in conjunction with the onset of the global economic downturn. But in the spring of 2011, global prices had again reached the levels of 2008 (FAO *et al.* 2011), though short-term price volatility has also increased (OECD/FAO 2010) and the distribution of price increases among commodities and products differed from that of 2008 (FAO *et al.* 2011).

There has been much debate about the nature and causes of the price hike of 2008. More informed analyses indicate that peak price levels in 2008 were, in real terms, at similar levels as prices in the early 1980s, and that sharp increases in food prices intervened after a period when prices were at an all-time low (Headey and Fan 2008). Informed analyses also question some of the widespread assumptions about the underlying causes of the 2008 price hike. While many commentators have suggested an important role of rising meat consumption in China and India, there is no evidence to back up this perception – and both countries have long been largely self-sufficient in food (Headey and Fan 2008). Contingent explanations of the crisis, like reported bad harvests due to climatic conditions in Australia, have also been questioned, as global wheat production declined more substantially in 2000/2001 (11%) than in the crisis period (5%, 2006/2007) (Headey and Fan 2008). On the other hand, there is strong evidence to suggest that the biofuel boom played an important role in food price hikes, mainly via the diversion of the US corn crop, and that export restrictions on crops like rice once prices started to rise exacerbated price increases by affecting global supplies (evidence reviewed by Headey and Fan 2008).

Overall, the evidence points to a prospect of higher food prices in the medium to longer term. By 2050, the world is expected to host about nine billion people.

Demand for food is expected to increase more than proportionally, due to the additional effect caused by growing incomes on changing diets. Expert estimates suggest that, for a 40% increase in world population, food production would need to increase by 70% (Deininger *et al.* 2011). Biofuel production will also put upward pressure on food prices. Oil prices will affect food prices both directly (through the cost of transport and fertilisers, for example) and indirectly (through affecting incentives for biofuel production) (FAO *et al.* 2011). The OECD-FAO Agricultural Outlook predicts prices for the decade 2010–2019 to be higher in both nominal and real terms than the decade prior to the 2008 peak (OECD/FAO 2010).

These forces make agriculture an increasingly attractive investment option. This includes the acquisition of shares in companies holding land, producing fertilisers, providing management services or otherwise involved in upstream or downstream agricultural activities (The Economist 2009). It also affects the attractiveness of land as an investment option. Changing agricultural commodity prices are shifting the distribution of risks and returns along the agricultural value chain, by increasing the downstream risks to processors and distributors, concerned about the security of their supplies, and boosting returns from production (Selby 2009). As resource constraints are increasing and advances in technology slowing down, it is likely that incentives to expand cultivated land areas, including through land-based investments, will continue to grow (Deininger *et al.* 2011).

Biofuels have also been a main driver in the global land rush – mainly linked to public policies, discussed below, but also in connection with price effects, particularly with regard to changing oil prices (Comité Technique Foncier et Développement 2010). As a result of profitability prospects underpinned by public policies and market forces, agribusiness, energy and biotech companies have developed strategic partnerships to invest in biofuels projects, including by acquiring land in the global South (Borras *et al.* 2010). Drawing on Land Matrix data, Anseeuw *et al.* (forthcoming) found that biofuels accounted for 37.2% of cross-referenced land areas acquired worldwide in 2001–2010, food accounted for 11.3%, and the rest was split between agro-industrial crops, forestry, mining and other land uses. The importance of biofuels in the global land rush is confirmed by country, which documented high levels of interest in biofuel projects: for instance, 798,578 ha of land were found to have been requested for biofuel projects in Tanzania (author's calculations based on data presented in Sulle and Nelson 2009), and 2,327,296 ha were found to have been requested in Mozambique (Nhantumbo and Salomão 2010); in both cases, land areas actually allocated to biofuels projects were much smaller.

The borderline between food and fuel is blurred, as the same crop may be used for both or the same plantation may involve multiple crops, and as investment plans may evolve over project duration to respond to changing international prices and other incentives. Also, it is possible that the relative importance of food and fuel in the rush to land has changed over time. International interest in biofuel production started before the food price hikes of 2008, which sparked the renewed momentum for agrifood projects. For example, several of the biofuel projects documented by Nhantumbo and Salomão (2010) and Sulle and Nelson (2009) were initiated in 2006–2007. Yet, more recently, some biofuels projects have run into financial difficulties as a result of the ongoing economic crisis (which has made project financing more difficult) and of changing world oil prices. Two of the four biofuels projects studied by Sulle and Nelson (2009) in Tanzania have run into such difficulties; one of the

three projects examined by Nhantumbo and Salomão (2010) in Mozambique has since had its land allocation withdrawn due to failure to invest (the government is reportedly planning to tender out the project to a new investor), while another one has shifted from a biofuel to a forestry project.

While much discussion has focused on global processes and while media reports have emphasised export markets as the main outlet for agricultural investments in poorer countries, informal exchanges with private sector operators point to expectations linked to the growing potential of domestic food and energy markets as a key consideration in land-based investments. These expectations are exemplified by an influential report published by the McKinsey Global Institute in 2010, *Lions on the Move* (Roxburgh *et al.* 2010). The report identified the African agrifood market as a high-growth market due to rapid economic, demographic and household income growth and to rapid urbanisation. Although reliable statistics are hard to come by, anecdotal evidence points to a large number of land-based investments that mainly target the domestic market for food and fuel. This is particularly the case for some contexts and crops. For example, it is estimated that 90% of global rice production is concentrated in Asia; while global trade is estimated to account for only 8% of global rice production, over 85% of that trade involves imports by Africa and Asia (Olam 2011). West Africa is a significant rice importer due to the role that this staple plays in diets. Informal conversations with private sector operators suggest that some see land-based investments for rice production aimed at domestic consumption in West African markets as an attractive business opportunity. Other crops for which local markets may be a central target include sugar and, in oil-importing countries, feedstock for biofuels.

Beyond food and fuel, agricultural commodities for industrial use, such as rubber, are also key drivers. Rubber accounts for a significant share of the land areas acquired by Chinese investments in Lao PDR, for example (Görgen *et al.* 2009). Cotton, alone or in combination with other crops, accounts for 9 of the 23 land deals released by the Ethiopian government in 2011, and for about 17% of the land area acquired through those deals.²⁰ Tree plantations are also thought to account for a large share of land acquisitions, though reliable statistics are scarce. An ongoing expansion of biomass energy capacity (especially plants to produce electricity from wood chips and pellets) in some OECD countries (e.g. in the UK), driven by renewable energy policies, is likely to substantially expand global demand for wood chips and pellets and may increase pressures on land in the global South (Cotula *et al.* 2011). Finally, carbon markets are also fostering the global land rush: cheap land values in Africa allow the acquisition of large areas of land; with minimal investment commitments, revenues can be generated through carbon credits from reduced land use change (on Mozambique, see Nhantumbo, forthcoming). Carbon credits may also increase the profitability of investments like tree and biofuels plantations, thereby compounding incentives for land acquisitions in these sectors. A land deal involving a tree plantation and carbon credit scheme is discussed in Cotula (2011a).

Within the context of these global processes, from the perspective of individual agribusiness companies the decision to acquire land for direct production activities (as opposed to increasing coordination with suppliers in the value chain, for example) is a function of a number of factors. These include the evolving

²⁰Author's calculations based on data from EAPortal (2011).

comparative advantages of ownership of productive assets versus coordination along the value chain. While some companies (supermarkets, for instance) may be particularly efficient at coordinating the value chain, others may acquire a distinct comparative advantage in forms of more direct involvement in agricultural production. Volume and security of supplies are also key concerns (De Schutter 2011). An international agricultural commodity trader that has long worked with smallholder farmers in Africa is now revising its business model by acquiring land and getting into direct agricultural production; the rationale is linked to the sheer volume of supplies needed and to side-selling problems in contract farming relations, whereby reliability of supplies is jeopardised where farmers sell to competing traders/processors. The need to guarantee a minimum level of throughput for processing plants may push the company to establish more direct control over the production stage. These factors are weighed against the greater political risks involved in land acquisitions, and the longer-term investment required by it. In addition, the need to comply with traceability requirements and with food quality and safety standards increases incentives for greater vertical coordination along the value chain – and even for outright vertical integration. Context-specific factors may also play a role in the economic considerations, for instance where new agricultural investments bring into production land areas with low population densities and weak local capacity to undertake agricultural production activities. In these cases, long-term contracts with local suppliers may be perceived as not economically viable.²¹

Strategic considerations may influence company choices, with regard to both vertical relations along the value chain and horizontal relations among competing firms. For companies seeking to increase control over the value chain, land is a strategic asset – and control over land can significantly influence negotiating power along the value chain. In outgrower schemes, for instance, the negotiating power of outgrowers would be expected to vary depending on whether they cultivate their own land or blocks subleased by the company. Also, evidence of investors acquiring larger land areas than they can cultivate has been explained as an attempt to ‘lock in very favourable terms of land access and eliminate future competition’ (Deininger *et al.* 2011, 63). Finally, land is cheap in many lower-income countries, and many investors see capital appreciation (increasing land values) as an important component of their business model. This issue is further discussed in the next section.

3.3. Market forces – The ‘financialisation’ of agriculture

The changes in global supply and demand for agricultural commodities, discussed in the previous section, point to increasing land values in the longer term, particularly in places where land is now cheap. Combined with other factors, this circumstance has increased the attractiveness of land as an investment option not only for agribusiness and energy companies interested in direct production, but also for financial operators interested in increasing returns and lowering risks for their portfolios. This process is part of a wider trend involving greater interest by financial investors in the agriculture sector as a whole (FAO 2010), linked to the factors discussed in the previous section. Some have referred to this trend as the ‘financialisation’ of agriculture (Anseuw *et al.* 2011).

²¹This paragraph draws heavily on conversations with industry operators.

A review of the role of financial investors in agriculture (undertaken for Buxton *et al.* forthcoming), documented 66 investments funds specialised in agriculture and investing in farmland, including both private equity and listed funds, with the sector being projected to grow fast. While some funds specialise in farmland, others pursue a ‘farm-to-fork’ strategy involving investment along the agricultural value chain – from input supply to production and processing, through to storage and distribution (Hawkins 2010, FAO 2010). Money can also be allocated to land and agriculture in other, less visible ways – for example, under a property portfolio, or through a fund of funds that invests in other funds involved with land-based investments.

Interest in land from financial investors is linked to a range of different factors. First, the economic fundamentals discussed in the previous section create expectations of growing returns from agriculture. Some return forecasts are as high as 25% (Hawkins 2010). These returns are expected to be generated by a combination of capital appreciation (increased land values) and income flowing from increased productivity in agricultural production on acquired land. Historical trends indicate that there is potential for significant returns from capital appreciation. Historically, farmland values have tended to increase, and farmland prices in the US and the UK have considerably outperformed stock markets on a 10-year timescale (Hawkins 2010). Wilkes and Bailey (2011) present similar findings for the past 15-year period in both the US and the UK, though residential property was found to outperform farmland. But unlike residential property, farmland in certain regions is seen as being ‘undervalued’ (Hawkins 2010). Indeed, farmland prices are very low in many parts of Africa (some of the contracts reviewed by Cotula 2011a involved no land fees at all), and potential for capital appreciation is significant. And while returns from agricultural production tend to be highly volatile due to production risks (e.g. weather, pests), land is seen as providing stable returns (Wilkes and Bailey 2011).

A second set of factors is linked to risk management, and has acquired greater relevance following the global financial crisis that started in 2008. In this context, land is seen a hedge against inflation. Also, returns on land have low correlation with (volatile) equity markets. Therefore, land is seen as an increasingly important ‘asset class’ for portfolio diversification purposes. In this respect, considerations about land as an asset class are not too dissimilar to those underpinning growing interest in commodities (gold, agricultural commodities). Also, the collapse in equity and bond markets in 2008 reduced the appeal of these asset classes and precipitated a resurgence of interest in land and commodities (UNCTAD 2009).

But while the crisis of 2008 created new momentum for financial investor interest in land, it also constrained the expansion of the sector, at least in the short term. Asset management firms would launch ‘farmland funds’ with ambitious financing targets and much media publicity, but institutional investors (e.g. pension funds, private equity and endowments) would have limited liquidity to inject (FAO 2010). In addition, potential investors may need to divest elsewhere, so the downturn in stock values experienced in 2008 increased challenges in capital mobilisation. Farmland funds also typically involve locking in capital for a number of years: while legal structures can be designed in ways that create an exit strategy, these funds tend to be relatively illiquid. In conditions of prevailing market uncertainty, some investors have preferred to stick to the more familiar asset classes, including equities in agriculture companies. As a result, some farmland funds have struggled to attract

the levels of investment sought.²² In addition, the deployment of capital raised takes time, partly because of the complex due diligence involved with farmland investments. A 'sizable amount' of capital managed by the investment funds interviewed by OECD (2010) was yet to be deployed.

These circumstances mean that ambitious and publicised announcements concerning the establishment of farmland funds do not necessarily translate into proportional levels of land investment on the ground. For example, an investment management firm dumped plans for a \$387 million USD farmland fund it first announced in 2008 (Pensions & Investments 2010). OECD (2010) found that 20 out of 25 investment funds interviewed were in the process of raising capital. And to put things in perspective, industry experts estimate that farmland investments account for less than 0.1% of the portfolio of European pension funds involved in the business (Pensions & Investments 2010).

While much public attention has focused on the involvement of investment funds in Africa, evidence suggests that location choices are a function of investor goals concerning the balance between risk and reward. Investors mainly concerned about wealth preservation (hedge against inflation, portfolio diversification) tend to invest in low-risk, low-return locations in Europe, North America and Australia, where existing land prices are already high; while higher returns (but also higher risks) are seen as possible in the 'emerging' and 'frontier' markets of South America and Africa (Hawkins 2010, Wilkes and Bailey 2011). A recent survey of investment funds suggests that interest in Latin America and Africa is growing, and that although Africa still accounts for a very small share of farmland acquired institutionally, both regions are attracting increasing amounts of capital. On the other hand, there appears to be little institutional investor activity in Asia (OECD 2010).

Investor strategies with regard to land management vary. In many cases, interest is in pure landholding; the land acquired by the fund is leased out for agricultural production to a farm operator (Wilkes and Bailey 2011). In some cases, however, investors pursue more 'hands-on' management strategies. For example, some firms operate through a corporate structure that includes an asset management company for fund management and an agricultural operator that undertakes agricultural activities to drive productivity increases, though industry experts estimate that 'at the heart of the strategy [of these firms] is the relative cheapness of this land' (Hawkins 2010, 6).

3.4. The crucial role of public policy

It is not just market forces that underpin the global land rush. Public policy plays a central role in a number of ways, in investor and recipient countries as well as globally. While these policies respond to specific concerns (about food or energy security, for instance), they also reflect a more general shift in perceptions about the roles of markets and states. Indeed, the financial crisis of 2008 has shaken the confidence in markets as a way to structure economies, and has created renewed momentum for state interventions, not just in agriculture. This section briefly discusses some of the key policies that influence large-scale land acquisitions.

As for investor country policy, the more direct policy instruments involve explicit support to land acquisitions overseas. For example, Saudi Arabia's 'King Abdullah

²²This paragraph draws heavily on personal communications from industry insiders.

Initiative for Saudi Agricultural Investment Abroad' supports agricultural investments by Saudi companies in countries with high agricultural potential. The scheme includes credit facilities to private operators, and strategic crops include rice, wheat, barley, corn, sugar and green fodders, in addition to animal and fish resources (Saudi Arabia Ministry of Foreign Affairs 2009). This scheme seems to mainly respond to concerns about national food security, in line with broader trends in the Gulf region. Indeed, while cereal agriculture in the Gulf countries is in decline, the population of the region is expected to double from 30 million in 2000 to nearly 60 million by 2030. Dependence on food imports, now at 60% of total demand, will grow as a result (Woertz 2009). This situation, coupled with widespread expectations of rising food and agricultural commodity prices linked to fundamentals of global supply and demand (see Section 3.2.1), have raised major concerns about national food security in some Gulf states. Food price rises are particularly problematic in relation to the large migrant blue-collar workforce that is present in some of these states. In other words, skewed wealth and income distribution coupled with a concern to avoid social unrest and ensure political stability are arguably among the root drivers of the policies that some Gulf countries have established to support agricultural investments overseas as a means to ensure continued access to cheap food for their population. Some commentators (Johnstone and Mazo 2011) have argued that increases in food prices played an important role in the 'Arab Spring' that swept some Middle Eastern and Northern African countries in 2010–2011.

Public policies supporting agricultural investments overseas may also be driven by considerations about business opportunities, macroeconomics or geopolitics, rather than national food security. For example, China has been pursuing a 'Going Global' (or 'Going Out') strategy since 1999. The strategy encourages Chinese firms to invest abroad, with a view to: creating business opportunities for Chinese companies that operate overseas (particularly in light of a perceived disadvantage of Chinese firms vis-à-vis the operational capability and branding of Western TNCs); stimulating the export of goods and services; securing access to natural resources where Chinese demand outstrips domestic supply; and diversifying the country's investment portfolio.²³ A range of incentives such as tax breaks, low-interest loans and customs preferences, allied to high-level diplomatic support, support the implementation of the Going Global strategy (Anderlini 2008, Xinhua News Agency 2008). Geopolitical considerations appear to play a role in China's promotion of investments in Southeast Asia, or in Libya's investments in the Northern part of Africa South of the Sahara, for example. In these contexts, agricultural investments may be part of larger, cross-sectoral deals also involving infrastructure or extractive industries, for instance, or export of investor country labour. Alternatively, they may be part of wider strategies to increase political influence in regions that the investor country sees as strategic.

Europe has lacked recent direct policies on foreign land acquisition for agriculture. The predominant policy driver for large-scale land investments has been the European Union (EU) policy to promote renewable energy. The 2003 Biofuels Directive, now repealed, set a biofuels consumption target of 5.75% of all petrol and diesel for transport by 31 December 2010 (EU 2003, article 3b(ii)). The more recent 2009 EU Renewable Energy Directive (RED) sets the target of

²³http://www.gov.cn/node_11140/2006-03/15/content_227686.htm, accessed in Chinese on 23 August 2011, read through translation from Google Translate.

increasing the share of energy from renewable sources to at least 20% of gross final consumption and at least 10% of the final consumption of energy in transport, all by 2020; EU member states are required to adopt national Renewable Energy Action Plans (nREAP) to promote compliance with this Directive (EU 2009, articles 3 and 4). With the expectation that biofuels are likely to be central to meeting the RED targets, European firms have responded to the promise of a guaranteed market with widespread investment in production of biofuel feedstocks, not only in Europe, but also in Asia, Africa and South America. The United States (US) Renewable Fuel Standard provides an equivalent mandate and set of financial incentives for US firms, which are sourcing feedstock predominantly from the US and Brazil. Such renewable fuel targets provide a commercial incentive for investment in biofuel feedstock production and associated land acquisition that would not be driven by market forces alone (Dufey *et al.* 2007). Climate change mitigation is often presented as a key policy goal underpinning biofuels promotion policies, as shifting energy sources in high-consumption countries is seen as politically more palatable than reducing consumption levels. Other compelling reasons for governments to pursue a switch from oil to biofuels include energy security (diversifying energy sources from Russia and the Middle East, addressing concerns linked to fluctuating global oil prices – Borrás *et al.* 2010) and rural development (as biofuels can provide income-generating opportunities for European farmers).

While biofuel promotion policies have attracted much public attention, policies in OECD countries have also promoted other forms of renewable energy that in the longer term may foster the global land rush. In Europe, for example, the 2009 Renewable Energy Directive is increasing momentum for biomass energy, particularly energy plants fired (or co-fired) with wood chips or pellets. Some nREAPs set ambitious targets for biomass energy. In the United Kingdom, a new strategy for biomass energy is under discussion as part of the nREAP process, with planning permission having been granted to more than 7 GW of biomass power plants. Although operators will initially look to tap the temperate woodlands of developed countries, there are significant timber growth rate advantages that may lead them to turn to the tropics and sub-tropics to fill their biomass gap in the near future. Already there is evidence of foreign investors acquiring land in Africa, South America and Southeast Asia to establish tree plantations for biomass energy (Cotula *et al.* 2011).

Public policies in the area of carbon trading are also fostering the global land rush, as land is acquired for tree plantations or biofuels projects that involve carbon credit as a main or complementary revenue stream (Nhantumbo forthcoming). While existing markets in carbon offsets are largely voluntary, global climate change negotiations concerning REDD (Reduced Emissions from Deforestation and Forest Degradation) are strengthening expectations that the role of carbon markets is likely to increase.

While investor-country and global policies play a central role in the global land rush, host-country policies also matter – particularly measures to increase the attractiveness of the policy environment for agricultural investment. These policy efforts include revising investment legislation to increase incentives for foreign investment (with measures including tax breaks through to streamlining investment promotion agencies); reforming land legislation to facilitate foreign investors' access to land; and, more generally, macro-economic measures to remove policy distortions penalising agriculture (including overvalued exchange rates that lowered real

agricultural prices, export taxes, or high taxation of agriculture; Deininger *et al.* 2011). Some governments (e.g. Mozambique, Tanzania and Ethiopia) have also made specific efforts to identify 'idle' lands within their territory, with a view to allocating them to agribusiness operators.

Some commentators have emphasised the role of the 'privatisation' of land in the global land rush. However, land remains state-owned in many key recipient countries, particularly in Africa and Southeast Asia. In other words, wider economic liberalisation has entailed a shift towards recognising private enterprise as a driver of economic development, but the state retains a central role in making land and natural resources available to private operators. Although policy features linked to centralised land control are not 'drivers' of the global land rush as such (they have been in existence for a very long time, and well before the latest wave of land acquisitions), using terminology developed by Anseeuw *et al.* (forthcoming) they have been crucial 'enablers' – in other words, factors that are facilitating the acquisition of very large areas of land at rapid pace. It is worth discussing this issue in greater depth.

In most African countries, much land is owned by the state. For example, land is nationalised in Ethiopia and Mozambique, where outright private land ownership is outlawed and only long-term land leases may be acquired. Other countries do allow private ownership, which may be acquired through land registration procedures (for instance, in Cameroon and Mali). But even in these cases, costly and cumbersome procedures mean that very few rural people hold ownership rights (Egbe 2001, on Cameroon, Djiré 2007, on Mali). In addition, where customary tenure systems are functioning and perceived as legitimate, local resource users may feel they have sufficient tenure security under these systems without needing to seek formal title. In Cameroon, for example, only about 3% of the land has been formally registered and is held under private ownership (Egbe 2001), mainly by urban elites such as politicians, civil servants and businessmen (Firmin-Sellers and Sellers 1999). As in many jurisdictions all untitled land is owned or otherwise held by the state, governments end up controlling much rural land even where the statute books devote numerous provisions to regulating private ownership.

On lands owned or administered by the state, rural people usually access lands and resources through 'customary' rights. The extent to which these rights enjoy legal recognition and protection under national law varies across countries and depending on resource use (e.g. farming versus pastoralism). A recurrent challenge, however, is that the protection provided by national law is weakened by productive use requirements (which undermine local claims to rangelands, hunting-gathering grounds, sacred sites and land reserves set aside for future generations); by wide state powers of eminent domain (whereby investment projects are considered to be for a 'public purpose' that enables the compulsory taking of local rights); by weak compensation requirements that limit compensation to improvements like trees and crops, to the exclusion of land values; and by absent or inadequate local consultation requirements.²⁴

Where land is owned or controlled by the state, legal devices enable the government to make land available to outside investors. Quantitative inventories of land acquisitions in a range of different jurisdictions suggest that most deals involve

²⁴For a more detailed legal analysis of these aspects, see Cotula (2011a, b) and Alden Wily (2011).

long-term land leases or concessions on state-owned land (Cotula *et al.* 2009, Gørgen *et al.* 2009, Deininger *et al.* 2011). The World Bank study (Deininger *et al.* 2011) found a statistically significant correlation between weak protection of local land rights and levels of agricultural investment – a finding that compounds the notion that land tenure regimes are ‘enablers’ of the global land rush.²⁵

The central role of the state in land relations, legal devices for the state to allocate land rights to investors, and varying, but overall limited, protection for local resource rights respond to the perceived need for poorer countries to attract investment as a way in which to promote economic development, create employment and generate public revenues. But benevolent strategic choices to promote economic development are only part of the story. The legal features of national legal systems are rooted in the colonial system, when colonisers treated conquered lands without visible developments as being empty (*terres vacantes et sans maître*, in French) and brought them under state ownership, and in decades of post-independence law-making shaped by single-party regimes or military dictatorships. They also reflect Africa’s integration into the world economy mainly as a supplier of natural resource-based commodities, and respond to the political economy of the state in Africa, which is discussed by authors such as Bayart (1993) and Chabal and Daloz (1999). In this context, attracting international capital provides national elites with opportunities for business activities, political patronage and personal gain. The central role of the state in natural resource relations enables national elites to control resources through their control over state institutions; conversely, it allows them to maintain their grip on state institutions by using resource allocation as a tool for political patronage. High-level government officials may benefit personally from large land deals (Comité Technique Foncier et Développement 2010). Keeping local resource rights in check facilitates the unhindered deployment of these strategies. This is particularly so in rural areas, while politically more vocal, urban-based groups may be better placed to use the costly and cumbersome procedures provided by the law to secure property rights – as illustrated by the predominance of urban groups in ownership of registered land in Cameroon and Mali (according to Firmin-Sellers and Sellers 1999, on Cameroon, and Djiré 2007, on Mali).

4. Discussion

The global land rush reflects profound economic and social transformations in agriculture. The projected mismatch between global demand and supply in agricultural commodities has created expectations of growing commercial returns from agriculture. The global restructuring of the food industry has created incentives towards greater vertical integration in agriculture, while economic considerations have increased the attractiveness of land as an asset class for financial players. These global processes have also triggered policy change in countries concerned about their long-term food or energy security, about business opportunities overseas or about geopolitical considerations. High-consumption countries have adopted policies that aim to mitigate climate change without, however, adversely affecting consumption

²⁵The finding must be treated with some caution, however, as regression analysis used a database of land acquisitions originating from media sources. As discussed above, some African countries have attracted particularly strong media attention, and it is possible that this circumstance may have affected the finding of the Bank’s report.

levels – for example, through promoting shifts from fossil fuel to biofuels or biomass energy. Recipient countries have reformed their policies on land and on investment to increase the attractiveness of their investment climate. This combination of policy and market forces has made land – particularly Africa’s ‘abundant’ and cheap land – a more attractive investment option.

The growing body of evidence on the scale and geography of the global land rush still presents important inconsistencies and lacunae – for instance, as datasets rely on different sources and methods and present different figures. New reports have been and will be published with yet different figures. But an excessive focus on pinning down the exact quantity of land that is being transacted is unlikely to pay off: some inconsistencies in datasets are rooted in conceptual and methodological problems that are very difficult to overcome. The most important point, though, is that all evidence consistently indicates that the land rush is happening on a very large scale, even more so when the growing interest in farmland is related to non-agricultural sources of pressures on the land (from extractive industries to natural parks). Therefore, the global land rush must be taken very seriously in both policy and practice.

Seen from a historical perspective (Huggins 2011), these trends are only the latest stage of a long-term process of commercial penetration in lower-income countries, including Africa, which dates back to the colonial project and involves ensuring continued supply of agricultural commodities to Northern (and, increasingly, Southern) markets. In other words, the global land rush confirms a long-standing international division of labour that casts Africa as a provider of commodities. However, three features of the global land rush importantly qualify this picture. The first feature is the sheer scale of the phenomenon, which is unprecedented in many recipient countries (Anseeuw *et al.* forthcoming). Large land deals are not new – many such deals have been concluded since colonialism – and indeed the global land rush has been framed by some as a form of ‘neo-colonialism’. But with the important exception of settler colonies, in most key recipient countries even colonialism did not involve the direct acquisition of land on a comparable scale. And after independence, for reasons discussed in this essay, many agribusinesses focused on upstream and downstream operations, leaving agricultural production to local farmers. In this respect, the global land rush is a new turning point in relations between North and South.

The second feature is the growing role of emerging economies like China and India in agriculture FDI (if not necessarily in land acquisitions). But while this aspect has received much media attention, the patterns of actual involvement may have been misunderstood in public perceptions. Also, the growing involvement of China and India is merely a reflection of the ongoing shift in the global geo-economic equilibrium, and it should not distract policy-makers in the West from the important role that Western companies are playing in the global land rush. More generally, geographical origin of investments and North-South divides are becoming less straightforward – as different geographies of interests may be at stake in a single investment project, and investments may be channelled through transit countries.

The third feature is the importance, largely underestimated in international debates, of national and local actors and dynamics. This applies to the role of domestic markets in investment strategies, as evidence increasingly points to market-as well as resource-oriented land acquisitions. In other words, it is becoming increasingly clear that a still unspecified share of land acquisitions are for

investments that target domestic rather than export markets. It also applies to the central role played by national elites (politicians, senior civil servants, business people) in land acquisition processes. The role of these players, both as land acquirers and as intermediaries and strategic allies working with international capital, is the continuation of a longer-term process whereby national elites have become increasingly interested in rural lands – a process that was documented well before international debates on the global land rush started (for example, on the role of ‘new land actors’ in Burkina Faso, see M. Ouédraogo 2003, and S. Ouédraogo 2006). The role of nationals must be understood in light of different and often more localised factors, including the importance of land in local investment options, strategic positioning and political patronage; but also, increasingly, in light of its links to international capital and global processes.

Continuities and ruptures with long-term historical trajectories are also reflected in the ‘actors, contexts and dynamics’ that are involved in the global land rush (Peluso and Lund 2011, 668). There is nothing new in the acquisition of land in the global South to produce crops for export to the global North, and some crops have a long history in tropical plantations (e.g. rubber). However, the biofuels boom has brought new actors (e.g. constellations of energy, agribusiness and biotech companies) and new crops (e.g. jatropha), or has reinvigorated interest in longstanding crops (e.g. sugar cane, palm oil). Similarly, tree plantations are not new, but the ongoing push for biomass energy in the global North has created new market outlets for wood products. Carbon markets are changing the nature of the financial returns at stake and, more fundamentally, the very relationship between humankind and nature. The growing participation of financial players in the global land rush brings to the land arena a new set of players, motivations and investment models. These considerations also point to the great diversity of actors, contexts and dynamics in the global land rush. In the words of Peluso and Lund (2011, 669), ‘there is no one grand land grab, but a series of changing contexts, emergent processes and forces, and contestations that are producing new conditions and facilitating shifts in both *de jure* and *de facto* land control’.

However one looks at it, the land rush, if sustained over the next few years, will have profound implications for the future of world agriculture, including the roles of states and markets, of agribusiness and family farming, and of the global trading system. For example, as companies increase their degree of vertical integration and as governments acquire land overseas to import agricultural produce, a growing share of world agricultural trade will occur within the ‘close circuit’ of corporate or country systems – deepening a trend that has emerged over the past few decades (Anseeuw *et al.* 2011). In turn, this trend may have repercussions in multiple directions: to name a few, greater vertical integration of value chains can squeeze local operators; intra-firm transactions may increase opportunities for tax avoidance through transfer pricing; and mercantilist approaches to outsourcing agricultural production for national food security can ultimately undermine the multilateral trading system. The land rush also signals a shift away from family farming, which has long constituted the backbone of agricultural systems in many recipient countries, including in much of Africa, and towards large-scale, mechanised agriculture.

The global land rush has triggered a lively, if polarised, public debate. A number of international policy responses have emerged, including ‘soft’ principles to make agricultural investments more ‘responsible’, and work to promote models of

agricultural investment that do not involve land acquisitions. Some commentators, NGOs and farmer organisations have expressed scepticism about the ability of voluntary principles to result in tangible change (Borras and Franco 2010). Drawing on historical research, others have pointed to the important inequalities that exist within family farming and in collaborative models that bring together smallholders and international capital (Amanor 2011). In addition to these considerations, any discussion of policy responses to the global land rush must take account of two key issues.

The first involves going beyond individual investment projects, and considering processes and impacts in aggregate terms. There is no shortage of international guidance for investors who want to 'do the right thing'. The OECD Guidelines for Multinational Enterprises were revised in May 2011, and so were IFC's Performance Standards, including those on land acquisitions. In June 2011, the UN Human Rights Council unanimously endorsed the Guiding Principles on Business and Human Rights developed by the Special Representative to the Secretary-General on Business and Human Rights. Specifically in relation to agriculture, the World Bank, FAO, IFAD and UNCTAD have proposed Principles on Responsible Agricultural Investment, while various sets of principles and standards have been developed by commodity-based bodies like the Roundtable on Sustainable Palm Oil or the Roundtable on Sustainable Biofuels. But even if all individual investment projects were to comply with international guidance (a scenario that is unlikely, not least given the non-binding nature of these instruments), the global land rush would still exacerbate pressures on resources. As a result, there would still be a real risk that local people will lose out – especially those with weaker rights and negotiating power. This situation calls for a more strategic approach to regulating the increased competition for natural resources, and well thought-out host government regulation plays a central role within that – including through sustained investment in securing land access for local groups. International guidance on the governance of natural resources, such as the Voluntary Guidelines for the Responsible Governance of Tenure of Land, Fisheries, and Forests in the Context of National Food Security, can help governments sharpen national regulatory frameworks. Regional organisations can also play an important role, not only by developing and supporting the implementation of policy guidance (e.g. the Africa Union's Framework and Guidelines on Land Policy), but also by providing arrangements for the joint management of shared resources. The latter consideration is particularly relevant in relation to the water implications of land deals, and is illustrated by the impacts that cumulative large-scale land acquisitions for irrigated agriculture in Mali's Office du Niger area may have on downstream countries in the River Niger basin.²⁶

The second issue to be factored in relates to the need for any policy response to build on a solid understanding of the fundamental drivers that underpin the global land rush. Promotion of investment models alternative to land acquisitions is unlikely to go far in the absence of well thought-out policies that reverse existing incentives that favour land-based investments. Much experimentation with business models that involve collaboration between companies and local farmers or communities is taking place in countries where regulation has created strong incentives for companies to work with local groups. In South Africa, for example, the land restitution process has started to bite in rural areas. As land changes hands

²⁶This issue and case is discussed in Cotula (2011a).

from companies to local people, companies are forced to work with communities to keep their businesses going (Makhathini 2010). In other words, policy interventions can only be effective if they properly address the policy- and market-rooted structural factors that create incentives for land acquisitions.

In addition, policies are of little use if they are not backed by determined political will to make them work. The belief that large-scale plantations are needed to 'modernise' agriculture is dominant in many host government circles, and governments are vying to attract land-based investment. According to recent media reports, for example, governments in Mozambique and Ethiopia have made public offers for millions of ha of land in the hope of attracting foreign investors. These trends contrast with the mounting evidence of failed land deals – projects that take land and then fail to deliver on investment promises due to financing difficulties, changed economic circumstances or over-ambitious business plans (Anseeuw *et al.* forthcoming). They also contrast with evidence showing that, when put in a condition to work, family farmers can be highly dynamic and competitive on global markets, and that small farm development is feasible and desirable for its impacts on poverty reduction (e.g. Wiggins *et al.* 2010). For those working to generate evidence and channel findings into policy, questioning this predominant paradigm and exploring workable alternatives to it must be key priorities for the years to come.

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