CHAPTER 2

States as Actors in International Agro-Investments

Martin Keulertz and Eckart Woertz

Abstract

Since the global food crisis of 2008 states have encouraged international agro-investments by their respective private sectors or have undertaken them directly via state-owned companies and sovereign wealth funds. This chapter analyses the crucial role played by national governments with the help of three case studies: the Gulf countries, China, and potential host countries. It thus shows the varying constraints experienced by these three cases and the strategies pursued to overcome them. States in the Gulf are heavily dependent on food imports and are concerned that export restrictions could undermine their food security. For the same reason, China has pursued a strategy of grain self-sufficiency, which is now being modified in the light of recent changes to diet and rises in demand. Governments in potential host countries and regions, like South-East Asia, Russia, and Brazil, on the other hand, have sought to keep their agricultural export industries national, maximise their revenue streams, and leverage them for geopolitical purposes. While much of the literature has focused on 'land grabbing' by foreign states in developing countries, this chapter offers a different perspective by placing the interests of states into the context of twenty-first century food politics. It concludes that: the focus of investments has been on value chains downstream rather than on farmland in the upstream sector; that ‘security mercantilism’ is far more complex than the land acquisition processes themselves; and that emerging economies in Asia seek to challenge the Western world in its hegemony over food production and virtual water trade.

1 Introduction

Food and agriculture have been intertwined with national interests historically. Initially these interests focused on food provision for armies; later, local populations were ruthlessly subjugated to serve development agendas, be it during the famines in the colonial tropical belts in the second half of the nineteenth century or during the brutal modernization of communist regimes in the twentieth century (Davis, 2001). The idea that affordable food should
be an inalienable right entered the vocabulary of political legitimacy only in the recent past. It did so in a context of proliferating support for farms and of nutrition programmes in the US in the 1930s that became closely intertwined with a development model of intensive growth. Labour was no longer a mere cost factor, as seen in the extensive growth model of the nineteenth century; it was also an important source of demand in growing consumer markets, such as those for white goods and cars. The Right to Food was enshrined in international treaties, like the Universal Declaration of Human Rights in 1948, and the International Covenant on Economic, Social and Cultural Rights in 1966.

Agricultural overproduction became a permanent feature of the post-war decades, first in North America and then in Western Europe. Countries were eager to dispose of their structural surpluses via subsidised food aid and used the allocation and withdrawal of such aid to further their foreign policy agendas during the Cold War. Governments in the developing world in turn used such subsidised food imports to feed their growing urban populations and as an input factor for their import-substituting industrialisation strategies, which were prevalent at the time.

The global food crisis of 2008, with its price hikes and export restrictions, has raised doubts over whether global agricultural trade flows will remain as readily available as in the past. Food importers in the Middle East and Asia have reacted by announcing agro-investments in developing countries, which have been identified as a ‘new frontier’ of agriculture as they have supposedly unused or underutilised land that could produce more food if yield gaps were closed by introducing modern management and production technologies (Deininger and Byerlee, 2011). These investments have met with a critical reception as they could threaten the land rights of smallholders and pastoralists, especially if such rights are not registered and are only customary in nature. Although there is a large implementation gap and media reports have often been inaccurate, the interests of these governments illustrate a growing concern about global food production and trade. Their role in international foreign direct investment (FDI) flows has increased over the last decade. While sovereign wealth funds predominantly pursue portfolio investments, some of them have a more proactive private equity orientation. The roughly 550 state-owned transnational corporations (TNC) make up only 1 per cent of global TNCs, but a substantial 10 per cent of global FDI (UNCTAD, 2009; UNCTAD, 2014). The relative share of agriculture in these FDI flows is miniscule, but still substantial in absolute terms. Often governments try to provide framework conditions for their respective private sectors, rather than investing themselves. Ownership also does not necessarily mean managerial control, which
often follows commercial prerogatives at the state-owned entities. Yet the direct and indirect investment initiatives clearly point to a heightened interest on the part of states.

This article analyses the role of states in international agro-investments with the help of three case studies. Countries located in the Gulf are heavily dependent on food imports and are concerned that export restrictions could undermine their food security. For the same reason China has pursued a strategy of grain self-sufficiency, which is now being modified in the light of recent changes to diet and rises in demand. Governments in potential host countries and regions, like South-East Asia, Russia, and Brazil on the other hand have sought to keep their agricultural export industries national, maximise their revenue streams, and leverage them for geopolitical purposes.

While much of the literature has focused on ‘land grabbing’ by foreign states in developing countries, this article offers a different perspective by placing the interests of states into the context of twenty-first century food politics. The focus of investments has been on value chains downstream rather than on farmland in the upstream sector. ‘Security mercantilism’ is far more complex than the land acquisition processes themselves. Emerging economies in Asia seek to brace themselves and to challenge the Western world in its hegemony over food production and virtual water trade.

2 Food Importers in the Second Food Regime

While the long-distance trade in grains played only a limited role in the Roman Empire, by the nineteenth century it had become a cornerstone of food supplies and food security strategies. In 1846 the British abolished the protectionist Corn Laws after a long struggle between the landed aristocracy, which had an interest in high grain prices, and the nascent industrial bourgeoisie, which wanted lower grain prices in order to moderate the wages of urban workers. From a position of maritime supremacy the United Kingdom (UK), by 1880, imported the majority of its grain from colonial settler states like North America and Australia, but also from India and Russia. Fuelled by railways and steam ships, the grain trade fed Britain’s workers and facilitated its industrial revolution in a first food regime that lasted from the 1870s to the 1930s. Exports of tropical commodities—such as sugar, cotton, and rubber—from the colonies were a second pillar of this first food regime (McMichael, 2009b).

After a period of crisis and reconfiguration, the first food regime was superseded by a second food regime in the aftermath of the Second World War. This new regime was characterised by subsidised grain production in core states and
surplus disposal in the developing world via export promotion programmes like the Public Law (PL) 480 programme in the US that was renamed the Food for Peace programme during the Kennedy administration. Diets underwent a process of ‘meatification’ in the developed world, and one of ‘wheatification’ in the developing world. The market for packaged, durable foods expanded in industrialised countries. Domestically produced input factors like soy oil, corn syrup, and synthetic fibres increasingly substituted colonial export crops like sugar and cotton.

There is an ongoing debate regarding whether we can speak of a third food regime today in which nation states have been superseded as main actors by transnational companies and the World Trade Organization (WTO), due to these increasingly influential actors’ dominant roles in value chains and trade liberalisation (McMichael, 2009b; McMichael, 2009a; Friedmann, 2009; Pritchard, 2009; Burch and Lawrence, 2009). Many emerging markets are now also undergoing the same processes undergone by the developed world in earlier decades, such as the ‘meatification’ of diets and the ‘supermarketisation’ of distribution systems. As a result, new actors have emerged and new relationships have been forged. Thailand and Vietnam have developed into major rice exporters. Brazil is now a soybean superpower and an indispensable feedstock supplier to the Chinese livestock industry. Russia has become a large cereal exporter again akin to its nineteenth and early twentieth century role. The Soviet days—when the union was one of the largest grain importers in support of the ambitious livestock programme of the 1970s and 1980s—are gone. Yet these changes notwithstanding, the geography of food trade that was drawn after the Second World War still looms large.

The picture of the global net trade in cereals is telling: with 88 million tons in 2013–14, North America is by far the largest net exporter, followed by the former Soviet Union economies (57 million tons), Oceania (24 million tons), Europe (17 million tons) and South America (14 million tons). South Asia has also had a significant export surplus over the last three years, with its net exports currently standing at 16 million tons. On the other side of this equation, Middle East and North African (MENA) countries are the largest net importers of cereals globally (92 million tons), although their population size is relatively small with about 500 million people. East Asia and South-East Asia with over two billion people have less cereal net imports than the MENA (66 and 11 million tons respectively). Central America and the Caribbean are net importers too, at 10 million tons. So is sub-Saharan Africa with 29 million tons, a figure that is expected to increase in the future (USDA, 2014).

Of course, there are other important agricultural commodities, like soybeans or palm oil, which are dominated by other producer countries such as
Brazil, Indonesia and Malaysia. But the focus on cereals is warranted; corn and barley are important feedstocks for livestock and wheat and rice alone constitute roughly 40 per cent of human calorie intake globally (FAOSTAT, 2013). Hence, cereals are of particular strategic significance. The cereal trade—especially that in wheat, as rice, corn, and barley are traded less across borders—also constitutes about 15 per cent of global virtual water trade, surpassed only by water-intensive cotton (25 per cent) and followed by soybeans (9 per cent) (Sojamo et al., 2012). Virtual water is the water, in food and fibres, that is used to produce a given commodity. It cannot be pumped like blue water, but is accessible via trade. As 70 per cent of global crops are produced by rain-fed agriculture, the focus of the global debate on blue water and the conflicts over surface water sharing can be misleading because water scarcity can be mitigated by virtual water ‘imports’ (Allan, 2011). Accessing foreign rainfalls via food, and therefore the virtual water trade, is of paramount strategic importance for food importers.

The food question also reveals the power of North America and Europe in the global economy. Over a period of 150 years, vertical integration in the food supply chain enabled and fostered the establishment of the agribusiness industry. Aided by subsidies of up to USD 1 billion per day, Western agribusiness corporations permeated the global food trade (Peterson, 2009). In 2003, Archer Daniels Midlands (ADM), Bunge, Cargill, and Louis Dreyfus (the ABCDs) were estimated to be trading 73 per cent of global bulk cereal commodities (Murphy et al., 2012). This estimation did not even include the Swiss energy and food commodity trader Glencore, which has grown and ranks now as the fifth largest market participant from Organisation for Economic Co-operation and Development (OECD) countries. The upstream and downstream management of the food supply chain has been strategically transferred to the private sector since the 1980s, which has enabled the West to control global food trade. By making use of economic power, Western agribusiness companies do not rely solely on domestic agriculture for trade. The companies are also strategically present in water-endowed regions such as Latin America and Asia. The resulting dependence on companies in the West for food imports and virtual water ‘provision’ has developed into a concern for emerging economies seeking to define the twenty-first century politically and economically.

This dependence has implications for the three case studies in question, for the reaction of the respective states to the global food crisis of 2008, and for these states’ role in international agro-investments. The Gulf countries’ dependence on food imports will increase. Domestic agriculture is being scaled down due to a lack of water, and population growth will only peter out after 2050. The Gulf Cooperation Council (GCC) governments have announced a flurry of
agro-investments since 2008; these have so far been largely unsuccessful and are conspicuously reminiscent of the failed Sudan breadbasket strategy of the 1970s. China has traditionally followed a policy of self-sufficiency, supported by its agrarian society model. However, China’s rapid industrialisation has led to a moderation of the self-sufficiency paradigm. Beijing now seeks to accommodate changing diets and subsequent rising demand with additional imports made possible by strategic investments in supply chains throughout the world. Meanwhile, the new agro-exporters that have emerged over recent decades, like Brazil, Russia, and the rice exporters of South-East Asia, try to strengthen their positions in the new geo-economic landscape of food trade.

The agricultural investment policy choices made by the GCC countries and China illustrate the importance of food in the current world order. While theorists in international relations have focused on military capacity or economic power as a key determinant of state power, the role of control over agricultural commodities is often a neglected area of analysis. However, food and water security have always played a strategically important role for people charged with state power. State interests in agricultural investment reveal a new ‘security mercantilism’ seeking to repatriate agricultural products to investing states (McMichael, 2013). The contemporary multipolar order represents a new phase of ‘inverse globalisation’ by which new actors in the global political order, such as the GCC countries and China, start to become investors instead of being the beneficiaries of investment (Allan et al., 2013; Sojamo et al., 2012). This chapter will return to this issue in its conclusion. First, the objectives and strategies, and the preliminary results of state actors’ involvement in agricultural investment will be analysed in the following sections.

3 Of Self-Sufficiency and Breadbasket Illusions: The Gulf Countries

Beside Asian countries, like China and South Korea, and western financial investors, Gulf countries constitute a third grouping in the wave of agro-investment announcements triggered by the global food crisis of 2008. Like the former two, Gulf countries share a specific set of motivations and concerns and a historical background all of which drives their actions. All are net food importers with a severe water shortage, and during the Second World War and in the 1970s all experienced the risk of geopolitical food supply disruptions. As oil exporters, Gulf countries were able to digest the concomitant food price hikes of the commodities boom of the 2000’s, but they have been unnerved by the temporary export restrictions that food exporters like Russia, Argentina, Vietnam, and India announced in 2008. Affordable food is part of the social
contract of Gulf countries, which are ruled in an authoritarian manner and buy off possible dissent over a lack of participation by using welfare payments and the offer of public sector jobs. Beside fuel and electricity, food and water are subsidised to varying degrees, at least for the local population. There are also differences between individual Gulf countries’ approaches to agro-investments; Qatar and Saudi Arabia have the most institutionalised approach with the United Arab Emirates (UAE) as a distant third, while Kuwait and Bahrain lag behind. While Saudi Arabia only aims at providing favourable framework conditions for its private sector, Qatar has established Hassad Food, a bespoke sovereign wealth fund (SWF) for agro-investments. Oman is yet to announce any agro-investments, but has the most advanced strategy in terms of strategic storage and other relevant domestic factors (Woertz, 2013).

These states’ sense of vulnerability is heightened by a lack of water and a need to downsize domestic agriculture. Gulf countries have one of the world’s highest domestic per capita water consumption rates. Agriculture accounts for the lion’s share of water withdrawal at about 80 per cent. While residential supplies are largely satisfied by desalinated seawater, farming has exploited fossil water aquifers at unsustainable rates, and these are drawn down and suffer from salt-water intrusion. Governments have started to react. Saudi Arabia has begun to phase out its subsidised wheat production and plans to end it in 2016 and the UAE is doing the same with Rhodes grass. However, livestock production continues to expand. As a result alfalfa is in high demand and farmers have switched from wheat to the latter crop, the cultivation of which consumes more water than wheat as it is planted all year round, and not only in the winter months. Saudi Arabia imports an enormous 40–45 per cent of globally traded barley as feedstock. As it will need to decrease its domestic alfalfa production it is expected to become the largest alfalfa importer in the world, importing either as hay or pellets, surpassing other major importers like the UAE, Japan, South Korea, and Taiwan (Personal interviews, Kuwait, November 2013).

The Qatar National Food Security Programme (QNFSP) raised eyebrows in 2009 with its cornucopian plan to raise self-sufficiency from its current level of 10 per cent to 70 per cent in 2023, with the help of futuristic farming designs and solar-based desalination. This figure was reduced to a more conservative 40–60 per cent in a later version of the programme’s food security ‘Master Plan’ (Kanady, 2013). Even that target is unlikely to be met. QNFSP has been downgraded after internal restructurings and food security issues have been handed over to an inter-ministerial committee. The QNFSP website no longer exists. For a state with a small population and large amounts of capital at its disposal QNFSP’s plans might have been possible in theory, but they hardly made ecological or economic sense. While some fruits and vegetables could be produced
in greenhouses with sufficient water efficiency, this is not the case with cereals and other water intensive crops that would be better imported. Yet, like other Gulf countries, Qatar has been interested in self-sufficiency out of fear of supply disruptions. During the Second World War famines in the region were only averted by food supplies from the Allied Middle East Supply Center (MESC) in Cairo and in the 1970s the US threatened a food boycott in retaliation for the Arab oil embargo (Woertz, 2013: ch. 2 and 4).

At the time of that threatened boycott, the Gulf countries devised an ambitious plan to develop Sudan as an Arab breadbasket to reduce such exposure to geopolitical risk. New institutions were founded in Khartoum, like the Arab Authority for Agricultural Investment and Development (AAAID) or the Arab Organization for Agricultural Development (AOAD), and private Gulf capital appeared on the scene. The Saudi arms trader Adnan Khashoggi and the Kuwaiti royal Sabah al-Ahmad al-Jaber engaged closely with the Nimeiri regime, which engineered an ecologically questionable expansion of mechanised, rain-fed farming, and had an infatuation with large-scale project designs that it tried to satisfy by increasing foreign and domestic indebtedness. Fears of land grabs mounted and displacements occurred (O’Brien, 1985), but the role of the Gulf countries remained subdued. Mostly they did not follow up on their ambitious announcements, and were anxious about lacking infrastructure and the notorious corruption and cronyism of Nimeiri’s regime. They dragged their feet and rarely moved beyond feasibility studies. When they did, many projects—like the Faisal scheme—proved to be failures. The Kenana Sugar Company is the only surviving signature project of that era. It received sumptuous investment guarantees from the Sudanese government and is half-owned by Kuwait and Saudi Arabia (Woertz, 2013: ch. 6). Meanwhile Sudan went through an epic famine in 1984–5, which must also be ascribed to Nimeiri’s breadbasket plans, which neglected and disenfranchised traditional smallholders and pastoralists while being unable to create viable commercial farming ventures (Verhoeven, 2015).

With the reversal of the food price hikes of the 1970s and reduced US politici- sation of the food trade, the Gulf countries’ interest in foreign agro-investments faded in the 1980s and 1990s. Instead, their focus turned inwards. Saudi Arabia launched its subsidised wheat schemes, which now have to be phased out for lack of water. It reached self-sufficiency and even became the sixth largest wheat exporter in the early 1990s. Yet the boom was not sustainable. Due to the global food crisis of 2008 the Gulf countries are, once again, engaged. Now, as in the past, they have announced agro-investments on an epic scale against the backdrop of rising food prices and a global commodities boom. Their interest is in staple foods, not in biofuels that have constituted a majority
of announced foreign agro-investments globally. Sudan has again been at the top of the list, followed by Pakistan, the Philippines, Ethiopia, and Egypt, mostly countries that are geographically and politically close, but have food security and water issues of their own. There has also been considerable interest in other countries along the East African coast, like Kenya, Tanzania, and Mozambique (Woertz, 2013). Cash-strapped developing countries have shown an interest in attracting Gulf funds. Sudan, in particular, launched a large dam-building programme in the 2000's and rolled out project designs that make Nimeiri’s earlier breadbasket dreams pale by comparison. Gulf and Chinese funds financed the Merowe dam 350 km (220 miles) north of Khartoum, which was finished in 2009. Its construction led to the displacement of over 50,000 people and to violent protests. Other dams are to be built this decade (Verhoeven, 2015).

However, Merowe and a few other projects apart, there has been a huge disconnect between media reports of land grabs and the reality on the ground. Like in the 1970s, Gulf investors have rarely followed up on their announcements. Political instability, poor infrastructure, and a lack of commercial viability have discouraged them. If they have put money on the table, it has been in developed agro-markets rather than in the developing countries in which most announcements have been made. Qatar-based Hassad Food’s investments in Australia or Saudi Al Marai’s in Argentina are cases in point. In the developing world most of the projects have either not got off the ground at all or only on a fraction of the announced scale. Often they have run into difficulties and are threatened by failure, as is the case of Saudi billionaire Mohamed al-Amoudi’s Saudi Star project in Ethiopia’s Gambela province (Woertz, 2013; Verhoeven, 2015).

This implementation gap has been particularly pronounced for projects in South-East Asia, which is far away from the Gulf countries and does not have the advantage of geographical proximity like East Africa (Woertz, 2013). The Saudi Bin Ladin group cancelled a USD 4.3 billion project for basmati rice cultivation in Indonesia citing funding problems in the wake of the global financial crisis. Nothing more has been heard about an agricultural project for over 100,000 hectares in East Kalimantan, which UAE based Minerals Energy Commodities Holding (MEC) announced as part of a larger investment in a coal mine, a railway, and an aluminium smelter. Kuwait sent a reconnaissance mission to Cambodia, Thailand, Laos, and Myanmar in 2008 to investigate the potential for Kuwaiti agro-investments in these countries. Although Kuwaiti announcements were interpreted by the press as a sign that investment decisions were imminent and those announcements are still widely quoted to this day, the overall conclusion of the delegation was to ‘do nothing’ and carefully
assess both Kuwait’s needs and conditions in target countries first (Interview with a Kuwaiti executive, 20 November 2013, Kuwait City). Political risk, underdeveloped infrastructure, and the non-existent export capacities of dispersed smallholdings were among the mission’s concerns. The sticky white rice that is produced in South-East Asia also does not match the pronounced consumption preference in the Gulf for basmati rice, which is mainly produced in Pakistan and India. The plans of the Saudi Al-Rajhi Group in the Philippines have been more concrete. It has established the Far East Agricultural Investment Corporation (FEAICO) to produce food on 78,000 ha in Mindanao, along with its local partner Aztropex. Its efforts to consolidate landholdings by leasing parcels from smallholders are controversial and it remains to be seen whether the corporation will be able to set up larger farming operations (Salerno, 2010; Revelli, 2012).

Gulf countries lack capacities to implement projects of this scale, especially in foreign ecologies and investment environments. Some of the sovereign wealth funds that have announced investments in hundreds of thousands of hectares have not had a single agro-engineer among their ranks. If there is implementation, Gulf countries tend to mimic the practice at home of running large-scale agro-projects with Western operating companies; at times even the manual workers are expatriates, at least on the foreman level (Woertz, 2013).

Seven years after the aforementioned wave of announcements, a new sense of reality has set in on the part of investors, target countries, and observers from academia and advocacy groups. The first version of the Land Matrix, a joint research effort of several think tanks to compile and verify media reports about land grabs, still contained numerous on-paper foreign agro-investor projects that had not seen any implementation at all, thus painting an exaggerated picture. That picture, and the project’s database, was used by academics in peer-reviewed journals (Rulli et al., 2013). The media, in turn, picked up these presumably authoritative scientific works, which were in fact based on unreliable media reports, and the news cycle came full circle (Rural Modernity, 2012; Brautigam, 2012; Woertz, 2012b). Revised versions of the Land Matrix have been considerably improved and provide a more accurate picture. Some on-paper projects have been removed from the database and information has been introduced that allows projects to be differentiated according to their implementation status. In academia, there is a growing perception that instead of a quantitative fixation more qualitative case studies are needed to give the topic a differentiated treatment without belittling the many problems that exist (Allan et al., 2013; Edelman, 2013; Oya, 2013). Target countries, like Sudan or Ethiopia, have voiced their frustration with projects that have not been realised and Ethiopia has started withdrawing concessions from companies.
whose projects are delayed (Edelman, 2013; Davison, 2013; Bekele, 2013). Gulf countries, on the other hand, have lost a great degree of interest in greenfield investments in the developing world in a manner not dissimilar to the events of the 1970s. Beside brownfield investments in developed agro-markets, attention has focused increasingly on food trade and logistics. All Gulf countries have increased their strategic storage capacities. Saudi and Qatari investors participated in the initial public offering (IPO) of commodity trader Glencore, which has expanded its presence in global grain markets with the takeover of Viterra, the largest wheat handler in Canada and South Australia. Port facilities have expanded and emergency plans have been drawn up. If Gulf countries have built pipelines in order to have alternative outlets for their oil exports in case of a closure of the Strait of Hormuz, similar considerations are at work for food. For such an emergency, Kuwait has an agreement in place to land food at the port of Fujairah on the UAE’s eastern coast, send it by truck to Jebel Ali in Dubai, and then ship it from there up the Gulf to Kuwait (Interview with a Kuwaiti executive, 20 November 2013, Kuwait City).

4 Food, Development, and Strategic Joint Ventures: China

China's food security challenges are arguably more formidable than those of the Gulf countries. It has only 9 per cent of the world’s arable land, but needs to feed 20 per cent of the world’s population (Brautigam, 2009). Satisfying most food requirements with imports is an option for the Gulf countries, but not for a country of over 1.3 billion people. Such an enterprise would overwhelm exportable surplus capacities on world markets. This is particularly true for rice, China's main staple food. Only a small proportion, 7–8 per cent, of global rice production is traded across borders. The respective figure for wheat stands at around 20–21 per cent (Timmer, 2013; FAO, 2014). As a result of this lack of liquidity it is difficult to balance rice supply shortages via trade and rice markets are prone to volatility. Rice production and consumption is also heavily concentrated in Asia; India and China alone produce half of the global harvest, mostly for domestic purposes.

Hence, self-sufficiency concerns are of great strategic significance to China. Notwithstanding brutal policy blunders like the ‘Great Leap Forward’ famine (1959–61) that cost the lives of 30–45 million people, agricultural development issues have been deeply engrained in the mindset of the Communist Party since it built its support base in rural areas that suffered from famines, in the 1930s and 1940s. China has managed to increase agricultural production
States as Actors in International Agro-investments

significantly since the reform era of 1978, yet it became a net importer of food in 2004. Rapid economic development and rising incomes have caused a dietary change towards favouring meat consumption and dairy products. Population growth has decreased due to the one-child policy, but it is still occurring and in a country like China small relative increments still result in large absolute numbers of additional mouths to feed. Further domestic production growth proves challenging, as the north of the country suffers from water shortage and land is lost to urban sprawl and ecological damage.

Demand for animal feedstock is now met to a large extent by imports. In the case of soybeans the figure stands at over 70 per cent, mostly from the US and Brazil (Sharma, 2014). In contrast, the Chinese government has been anxious to maintain a high degree of self-sufficiency in grain production for human consumption. It long regarded 95 per cent self-sufficiency and 120 million ha of cultivated land as an absolute minimum. In 2008, China underlined this self-sufficiency goal in its 20-year food security strategy, in which it ordained that staple crops should be produced at home and outsourcing should be confined to commercial crops like cotton and animal feedstock, similar to the aforementioned soybean imports (Cotula et al., 2009: 55). Cracks in this stance appeared in 2014, when China maintained the self-sufficiency goal in principle, but for the first time set grain production targets well below consumption levels, eyeing a ‘stabilisation’ of production in 2020 at roughly 10 per cent below the harvest of 2013. Instead, China now places greater emphasis on issues of food safety and quality and the production of higher-value-added foods like meat, vegetables, and fruit (Hornby, 2014).

Whilst China will always need to maintain a high level of self-sufficiency, it has now braced itself for greater reliance on imported food. Due to its size, a marginal increase in its demand has a considerable impact on world markets. This was demonstrated in the global corn markets of 2010–11, when China caused a price hike after becoming a large buyer following a drought. China holds the largest wheat stocks in the world, 31 per cent of the total. It has considerable means to balance price fluctuations and to smooth its increased engagement with world markets. In comparison, the US holds only 12 per cent of global wheat stocks, India 8 per cent, and the Arab world, as the largest cereal-importing region, a relatively low 10 per cent (World Bank and FAO, 2012).

China’s ‘going global’ policy has had two decisive moments. First, policy measures have been put in place—since 1999—to secure raw material supplies for the country’s rapid industrialisation. Investments have focused on energy and mining. Second, the introduction of agricultural subsidies in 2004 laid the
foundations for increasingly profitable agribusiness. Responding to growing fears of political instability, due to a widening gap between the countryside and China’s booming urban centres, the central government in Beijing reversed the practice of taxing agriculture shortly after 1 January 2006. China’s transformation from an agricultural to an industrial economy has gone hand in hand with the decreasing economic (yet not strategic) importance of agriculture (Gale et al., 2005).

Although the stimulus of 2004 only marginally affected agricultural output, it offered new opportunities for the private sector. For example, the past ten years has seen the rapid ascension of the Hong Kong-headquartered Noble Group to its position as one of the world’s largest agribusiness companies. Founded through a British businessman’s investment of USD 100,000 in 1987, the company also trades energy and minerals and currently has similar revenues to the US agribusiness multinational Archer Daniels Midland (ADM). The growth pace of Noble is breathtaking. While its revenues were only USD 15 billion in 2007, they sextupled within six years to USD 98 billion in 2013 (Forbes, 2014; Stevens, 2007; South China Morning Post, 2012). China’s sovereign wealth fund, China Investment Corporation (CIC), holds 15 per cent of shares in—what is referred to as—‘the company’ (Koons and Venkat, 2014). However, yet another strategic public–private partnership was announced in April 2014. Channelled through the state-owned China National Cereals, Oils and Foodstuffs Corporation (COFCO) and private equity investment firm HOPU Investment, a new joint venture between China’s public food companies and Noble will see the establishment of Noble Agri JV, giving COFCO and HOPU, collectively, 51 per cent of the shares while Noble retains 49 per cent. HOPU Investment is owned by the infamous Chinese business tycoon Fang Fenglei, who was previously Goldman Sachs’s Asia chief executive officer (CEO). The rationale of this joint venture is to provide Noble with capital and COFCO with Noble’s downstream supply-chain knowledge and operations to establish what, in due course, may become the world’s biggest global agribusiness company. The new company intends to increase China’s access to agricultural production regions and countries, such as Latin America and Russia, as a first step. Other takeovers by Chinese companies in the food processing and trading sector have included Tnuva, the Israeli cheese and consumer foods supplier, US pork producer Smithfield Foods, the UK breakfast brand Weetabix, and Australian winemaker Hollick. China is preparing to compete with the Cargills and Nestlés of this world rather than just gobbling up farmland in the upstream sector.

China has understood that strategic agricultural investments are necessary to maintain its transition from an agrarian society to the potentially biggest
economy in the world. To this end, Africa has played a prominent role as a potential target region for supplies of agricultural imports.\(^1\) Mostly state-owned companies have made foreign agro-investments as part of this strategy; focusing on industrial input factors such as, rubber, palm oil, or cotton but avoiding investments in food crops. Insofar as they have aimed at food crops in Africa, they have done so for local markets, not for export to China, since the long distances, underdeveloped infrastructure, and lack of expertise amongst Chinese state investors in downstream supply would make such exports prohibitively expensive. For the stated strategic reasons, China has a preference for domestic production of staple crops. However, this preference may have to be modified in the coming years due to growing prosperity and China’s new economic expansion policy.

China regards Africa as an important export market for corn and rice hybrid seeds. In 2006, the Forum on China–Africa Cooperation in Beijing propagated a spirit of ‘win-win cooperation’ in the field of agriculture and China pledged to set up agricultural demonstration centres in Africa. It has also used agro-investments as an instrument in its competition with Taiwan for diplomatic recognition and as an ancillary tool for soothing concerns about Chinese infrastructure and mining projects with high environmental impacts. Yet, China has remained a minor investor, thus far taking a cautious approach to the ‘last frontier’ in global agriculture: sub-Saharan Africa. Apart from research and development cooperation, China has not made great efforts to utilize the continent’s potential ‘food bowls’. Beside Africa and Latin America, South-East Asia has, for China, developed into an important procurement source for industrial input factors such as rubber. Corresponding investments, whether foreign or domestic, have led to a deep restructuring of land tenure systems.\(^2\)

In general, Chinese foreign investments have been blamed for relying on imported labour from China and on large-scale project designs, and for undermining environmental standards and offering limited benefits to target countries. While these reproaches may have merit in many cases, in others they do not accurately reflect economic dynamics, which have been stimulated by Chinese investments, and one is hard pressed to find differences with competing Western investment practices (Asongu and Aminkeng, 2013). Justified criticism of such practices notwithstanding, some Chinese projects have a genuine development motivation. China already undertook rice projects in Africa in the 1960s that had a dedicated smallholder orientation. While the systems

---

1 This is not the case for China alone; Africa has played a similar role for other emerging economies.
2 See Messerli et al., and Gironde and Senties Portilla in this volume.
created by these projects fell into disrepair after the Chinese left, as relative complexity and labour intensity affected project continuity, China is now trying to breathe new life into such schemes.

In addition to the variety of qualitative aspects of Chinese investments, it should be pointed out that a considerable discrepancy exists between media reports on such investments and their quantitative extent in reality. This is strikingly similar to the case of the Gulf countries, outlined above. By 2012 only a few Chinese agro-investments in Africa above 5,000 ha had been implemented and none at all in the large scale bracket above 10,000 ha (Brautigam, 2013). However, the advent of ‘China Ag Corporation’ triggered by a new growth strategy implemented through strategic investments in ‘the company’ (Noble) may alter this approach in the coming years.

5 Policies of Host Country States

If governments in the Gulf and China have tried to foster investments in foreign agricultural value chains, governments of host countries have also enacted policies that affect this investment drive. Three different investment targets have been discussed in this article: a) companies in developed markets that focus on upstream value chains like input procurement, food processing, and trading; b) greenfield investments in agricultural land in developing countries; and c) agricultural investments in developed markets, often brownfield. Depending on the nature of the investment, policies in host countries vary.

Value chain investments in developed markets are less emotionally charged than land investments in developing countries. Often they have taken the form of smooth ownership transfers like the aforementioned Chinese acquisitions of Tnuva, Weetabix, and Smithfield. On other occasions they have raised strategic concerns, even though food processing and trading companies are less likely to be identified as strategic industries than are energy or high tech companies. The Australian government blocked a takeover of the grain trader GrainCorp by US based ADM in 2013 citing national interest and food security concerns (Scott and Behrmann, 2013). Australian BHP Billiton’s attempted hostile takeover of Canadian fertiliser producer Potash Corp. in 2010 and a potential counter bid from Chinese state-owned Sinochem stirred protectionist sentiments in Canada (Massot, 2011). How SWFs and state-owned TNCs are perceived has changed since the mid-2000s when Western countries were concerned about the political influence of foreign governments on their economies. Since then, SWFs have subscribed to the Santiago Principles, an IMF-sponsored public outreach exercise that aims to alleviate concerns over transparency issues.
SwFs also have become welcome providers of capital in the wake of the global financial crisis of 2008. Currently they are rather perceived as normal market participants, but a renewed wave of protectionist sentiment cannot be ruled out given the shifts in global food markets and the magnitude of global financial imbalances, where government-owned entities in the Middle East and Asia hold large assets in OECD countries (Woertz, 2012a).

Land investments in developing countries are the most controversial of the three types of investments. Cash-strapped governments in host countries have tried to attract them as they are in need of capital imports and have hoped for agricultural development-led industrialisation (ADLI) (ECOSOC, 2007). Ethiopia and Cambodia for example have tried to lure foreign investors with the use of bespoke investment agencies, and favourable laws and taxation regimes (Shepherd, 2012; Shepherd, 2013). However, large-scale greenfield projects have often met with bottom-up resistance from small-scale farmers and holders of customary land rights who stand to lose from such initiatives. Together with political instability in many target countries, this has affected the calculations of potential investors and has contributed to a pronounced implementation gap in this investment category.

Land investments in developed agro-markets, the third category, have met with a different set of challenges. Governments of these host countries are also keen to foster agricultural exports, but on their own terms by leveraging their market position and limiting foreign ownership of land. Thailand only allows agricultural investments if there is a Thai majority partner, Brazil has limited large-scale landownership by foreigners out of fear of Chinese acquisitions, and Australian politicians have mulled over similar steps (Woertz, 2013). Such assertiveness is also reflected in the politics of agro-exporters—like Brazil, Thailand, Canada, South Africa, and Australia—at the WTO, where they have formed the Cairns groups in order to lobby against agricultural subsidies in the US and the EU, which they regard as elements of unfair competition (Weis, 2007).

Russia and the South-East Asian rice exporters provide examples of how newly emerging agro-exporters are trying to leverage their market positions, which could prove to be to the detriment of importer nations. Russia is an importer of fruit, vegetables, meat, and dairy products, but it has become a major grain exporter again, as it was in the nineteenth and early twentieth centuries. At the turn of the millennium, Russia’s global wheat market share was still as low as 0.5 per cent. Within only ten years, Russia increased its market share to 13.8 per cent and some expect it to become the largest wheat exporter worldwide by 2019 (Pall et al., 2011). Yet, there is uncertainty about these estimates because rain-fed harvests have been volatile and Russia’s agricultural
sector continues to be hampered by inefficiencies resulting from poor governance. Similar to China, yet differently conceived, Russia has begun to strategically subsidise and de-tax its agricultural sector. To this end the Russian government has adopted the State Program for Development of Agriculture and Regulation of Agricultural Commodities Markets for the period 2013–2020 (Vassilieva, 2012b).

The Russian government has sought cooperation with neighbours Ukraine and Kazakhstan on grain marketing, which has caused concerns about cartel-like price fixing. On the other hand, Russia has offered Egypt and Algeria subsidised wheat below world market prices (Pall et al., 2011). These political moves echo Russia’s plans to use food as a bargaining chip to expand its geopolitical sphere of influence. Through Russian presidential decree no. 290 of March 20, 2009, the United Grain Company (UGC) was established to strategically handle food trade logistics. UGC has since acted as the intermediary agent between the state’s interests in domestic and international agricultural relations (Vassilieva, 2012a). In 2010, President Medvedev decided that UGC would have to be partly privatised by 2012 in order to inject more capital. Despite widespread Western interest in purchasing shares of the company, the investment group Summa, owned by the business tycoon Ziyavudin Magomedov, acquired 51 per cent of the shares of UCG to take over the company. As a strategic objective, UGC has formed joint ventures with companies in East Asia to increase its market share there, namely in China, Taiwan, and Japan (Bloomberg Business, 2015). Similar to its energy giant Gazprom and with the core objective to ‘look east’, Russia’s agricultural expansion plans eye Eurasian investments aided by strategic public–private joint ventures.

At the height of the global food crisis of 2008 five rice producers in South-East Asia—Thailand, Vietnam, Cambodia, Laos, and Myanmar—contemplated forming the Organisation of Rice Exporting Countries (OREC). Although Thai prime minister Samak said, ‘We don’t aspire to be like Organization of the Petroleum Exporting Countries (OPEC),’ the mere contemplation of OREC sent shockwaves through rice importing countries like the Philippines and Indonesia, which feared cartel-like price fixing. Thailand and Vietnam alone accounted for half of globally traded rice exports at that time (Brummer, 2011). Cartels usually struggle with internal discipline and can overpower market forces only for a limited time. So far no formal organisation has been established. The website of OREC appears rudimentary and there have been no new posts since early 2013, which would hint at limited activity. In contrast to 2008, rice markets are now well supplied. Thailand grapples with

---

3 Available at http://www.orecinternational.org/ (accessed on 2 April 2015).
overcapacities that go back to a subsidy programme launched in 2011 that paid farmers above world market prices. It was terminated in 2014 after losses of more than $18 billion and widespread accusations of corruption. If a future OREC served as an intergovernmental rice traders’ association, as a lobbying arm to reduce rice trade restrictions in Asia, or as a coordinator of regional buffer stocks instead of as a cartel, it might have a beneficial impact (Brummer, 2011). Yet the mind games surrounding its attempted formation show how food exporters seek to benefit from the changing global food system and the growing interest from food importer nations in their production capacities.

6 Conclusion

States as actors in global food supply-chain investments and trade is a topic that has attracted increasing interest in the past few years. ‘Security mercantilism’ is far more complex than land acquisition processes. While much of the literature has focused on ‘land grabbing’ by foreign states in developing countries, this chapter offers a different perspective by placing the interests of states into the context of twenty-first century food politics. It sheds light on a new, and as yet under-researched, period of globalisation. Emerging economies in Asia seek to brace themselves and to challenge the Western world in its hegemony over food production and virtual water trade. These strategies involve sophisticated public–private joint ventures in the respective national interests. The economies analysed differ substantially in their approach to ‘security mercantilism’. The defining moment for policy changes was the food price spikes of 2007–08, after which new strategies were conceived in order to gain independence from Western food trade. While the GCC opted for the unsuccessful revival of the ‘dream’ of a Sudanese ‘breadbasket’, China strategically channelled capital into the agro-industry to copy the model of the West. New agro-exporters like Brazil, Russia, and Thailand on the other hand sought to influence the changing landscape of food trade to their advantage, by leveraging pricing power and putting ceilings on foreign ownership. Asia will be the most crucial area for the demand side of food politics in the twenty-first century both due to its dominant share of future economic growth and because of the changing diet of its citizens. It will rival the MENA region, which is currently still the largest net-importer of cereals globally. While it remains an ongoing process, Asian economies have begun to prepare themselves to invert power relations within the food globalisation process. Therefore, it can be concluded that the politics of food will define the first half of the twenty-first century in no minor way.
References

Allan, T. (2011) *Virtual Water: Tackling the Threat to Our Planet’s Most Precious Resource* (London: I. B. Tauris).

Allan, T., J. Warner, S. Sojamo and M. Keulertz (eds.) (2013) *Handbook of Land and Water Grabs in Africa: Foreign Direct Investments and Food and Water Security* (London and New York: Routledge).

Asongu, S.A. and G.A.A. Aminkeng (2013) ‘The Economic Consequences of China–Africa Relations: Debunking Myths in the Debate’, *Journal of Chinese Economic and Business Studies, 11*(4), pp. 261–277, DOI: 10.1080/14765284.2013.898984.

Bekele, K. (2013) ‘Saudi Star Rice Project Feels the Pinch’, *The Reporter*, 23 November, http://www.thereporterethiopia.com/index.php/news-headlines/item/1282-saudi-star-rice-project-feels-the-pinч (accessed on 17 February 2015).

Bloomberg Business (2015) *Company Overview of JSC United Grain Company*, http://investing.businessweek.com/research/stocks/private/snapshot.asp?privcapId=99331238 (accessed on 17 February 2015).

Brautigam, D. (2012) “Zombie” Chinese Land Grabs in Africa Rise Again in New Database!, http://www.chinaafricarealstory.com/2012/04/zombie-chinese-land-grabs-in-africa.html (accessed on 30 April 2012).

——— (2009) *The Dragon’s Gift: The Real Story of China in Africa* (Oxford and New York: Oxford University Press).

Brummer, M. (2011) ‘The Cartel of Good Intentions? OREC and Food Security in Asia’, *Asian Journal of Public Affairs, 4*(1), pp. 27–41.

Burch, D. and G. Lawrence (2009) ‘Towards a Third Food Regime: Behind the Transformation’, *Agriculture and Human Values, 26*(4), pp. 267–279, DOI: 10.1007/s10460-009-9219-4.

Cotula, L., S. Vermeulen, R. Leonard and J. Keeley (2009) *Land Grab or Development Opportunity? Agricultural Investments and International Land Deals in Africa* (London and Rome: IIED–FAO–IFAD).

Davis, M. (2001) *Late Victorian Holocausits: El Niño Famines and the Making of the Third World* (London and New York: Verso).

Davison, W. (2013) ‘Ethiopia’s Farm Investment Plans Falter on Flood Plain’, *Bloomberg Business*, 25 November, http://www.bloomberg.com/news/articles/2013-11-24/ethiopian-drive-to-lure-farm-investment-founders-on-flood-plain (accessed on 2 February 2015).

Deininger, K. and D. Byerlee (2011) *Rising Global Interest in Farmland. Can It Yield Sustainable and Equitable Benefits?* (Washington, D.C.: World Bank–International
Bank for Reconstruction and Development), http://siteresources.worldbank.org/DEC/Resources/Rising-Global-Interest-in-Farmland.pdf (accessed on 26 May 2015).

ECOSOC (United Nations Economic and Social Council) (2007) *The Agricultural Development Led Industrialization (ADLI) Strategy, Ethiopia 2007* (New York: ECOSOC), http://webapps01.un.org/nvp/indpolicy.action?id=124 (accessed on 17 February 2015).

Edelman, M. (2013) 'Messy Hectares: Questions About the Epistemology of Land Grabbing Data', *The Journal of Peasant Studies*, 40(3), pp. 485–501, DOI: 10.1080/03066150.2013.801340.

FAO (Food and Agriculture Organization) (2014) *FAO Cereal Supply and Demand Brief* (Rome: FAO) http://www.fao.org/worldfoodsituation/csdb/en/ (accessed on 16 January 2015).

FAOSTAT (2013) *FAOSTAT* (Rome: FAO), http://faostat.fao.org/ (accessed on 2 November 2014).

Forbes (2014) *Noble Group*, http://www.forbes.com/companies/noble-group/ (accessed on 4 November 2014).

Friedmann, H. (2009) 'Discussion: Moving Food Regimes Forward: Reflections on Symposium Essays', *Agriculture and Human Values*, 26(4), pp. 335–344, DOI: 10.1007/s10460-009-9225-6.

Gale, F., B. Lohmar and F. Tuan (2005) *China's New Farm Subsidies*, wrs-05-01, February (Washington, d.c.: United States Department for Agriculture), http://www.ers.usda.gov/media/872040/wrs0501_002.pdf (accessed on 2 April 2015).

Hornby, L. (2014) 'China Scythes Grain Self-Sufficiency Policy', *Financial Times*, 11 February, http://www.ft.com/intl/cms/s/0/6025b7c8-92ff-11e3-8ea7-00144feab7de.html—axzzzwlsaVogtd (accessed on 17 February 2015).

Kanady, S. (2013) 'Food Security Plan Getting Final Touches', *The Peninsula*, 30 June, http://thepeninsulaqatar.com/news/qatar/243335/food-security-plan-getting-final-touches (accessed on 2 November 2014).

Koons, C. and P.R. Venkat (2014) 'China's Cofco, Hopu to Buy 51% Stake in Noble Agriculture Unit', *Wall Street Journal*, 2 April, http://online.wsj.com/news/articles/SB10001424052702304157204579476073967321180 (accessed on 19 April 2014).

Massot, P. (2011) 'Chinese State Investments in Canada: Lessons from the Potash Saga', *Canada-Asia Agenda*, No. 16, 21 January, http://www.asiapacific.ca/sites/default/files/filefield/chinese_state_investments_in_canada_v4.pdf (accessed on 2 April 2015).

McMichael, P. (2013) 'Land Grabbing as Security Mercantilism in International Relations', *Globalizations*, 10(1), pp. 47–64, DOI: 10.1080/14747731.2013.760925.

——— (2009a) 'A Food Regime Analysis of the “World Food Crisis”', *Agriculture and Human Values*, 26(4), pp. 281–295, DOI: 10.1007/s10460-009-9218-5.
Keulertz and Woertz (2009b) ‘A Food Regime Genealogy’, Journal of Peasant Studies, 36(1), pp. 139–169, DOI: 10.1080/03066150902820354.

Murphy, S., D. Burch and J. Clapp (2012) Cereal Secrets: The World’s Largest Grain Traders and Global Agriculture, Oxfam Research Reports (Oxford: Oxfam), https://www.oxfam.org/sites/www.oxfam.org/files/rr-cereal-secrets-grain-traders-agriculture-30082012-en.pdf (accessed on 2 April 2015).

O’Brien, J. (1985) ‘Sowing the Seeds of Famine: The Political Economy of Food Deficits in Sudan’, Review of African Political Economy, 12(33), pp. 23–32, DOI: 10.1080/03056248508703630.

Oya, C. (2013) ‘Methodological Reflections on “Land Grab” Databases and the “Land Grab” Literature “Rush”’, The Journal of Peasant Studies, 40(3), pp. 503–520, DOI: 10.1080/03066150.2013.799465.

Pall, Z., O. Perekhozhuk, R. Teuber and T. Glauben (2011) Wheat Trade—Does Russia Price Discriminate across Export Destinations?, paper presented at the IAMO Forum 2011, 23–24 June, http://econstor.eu/bitstream/10419/50794/1/670792926.pdf (accessed on 26 May 2015).

Peterson, E.W.F. (2009) A Billion Dollars a Day: The Economics and Politics of Agricultural Subsidies (Hoboken: Wiley-Blackwell).

Pritchard, B. (2009) ‘The Long Hangover from the Second Food Regime: A World-Historical Interpretation of the Collapse of the WTO Doha Round’, Agriculture and Human Values, 26(4), pp. 297–307, DOI: 10.1007/s10460-009-9216-7.

Revelli, P. (2012) ‘Wie Der Zucker Nach Luzon Kam’, Le Monde Diplomatique, 12 October, http://www.monde-diplomatique.de/pm/2012/10/12.mondeText.artikel,a0044.idx,14 (accessed on 17 February 2015).

Rulli, M.C., A. Saviori and P. D’Odorico (2013) ‘Global Land and Water Grabbing’, Proceedings of the National Academy of Sciences, 110(3), pp. 892–897, DOI: 10.1073/pnas.1213163110.

Rural Modernity (2012) The Land Matrix: Much Ado About Nothing, http://ruralmodernity.wordpress.com/2012/04/27/the-land-matrix-much-ado-about-nothing/ (accessed on 27 April 2012).

Salerno, T. (2010) Land Deals, Joint Investments and Peasants in Mindanao, Philippines, unpublished MA Thesis (The Hague: Institute of Social Studies, Graduate School of Development Studies).

Scott, J. and E. Behrmann (2013) ‘Adm’s $2 Billion Graincorp Bid Blocked by Australia’, Bloomberg Business, 29 November, http://www.bloomberg.com/news/2013-11-28/australian-treasurer-hockey-rejects-adm-takeover-of-graincorp.html (accessed on 3 November 2014).

Sharma, S. (2014) The Need for Feed. China’s Demand for Industrialized Meat and Its Impacts, (Minnesota and Washington, D.C.: Institute for Agriculture and Trade Policy) http://www.iatp.org/files/2014_03_26_FeedReport_f_web.pdf (accessed on 2 April 2015).
Shepherd, B. (2013) *GCC States’ Land Investments Abroad. The Case of Ethiopia*, Summary Report No. 8 (Doha: Center for International and Regional Studies, Georgetown University School of Foreign Service in Qatar), https://repository.library.georgetown.edu/bitstream/handle/10822/558319/CIRSSummaryReport8TheCaseofEthiopia2013.pdf?sequence=5 (accessed on 2 April 2015).

— — — (2012) *GCC States’ Land Investments Abroad. The Case of Cambodia*, Summary Report No. 5 (Doha: Center for International and Regional Studies, Georgetown University School of Foreign Service in Qatar), https://repository.library.georgetown.edu/bitstream/handle/10822/558540/CIRSSummaryReport5TheCaseofCambodia2013.pdf?sequence=5 (accessed on 2 April 2015).

Sojamo, S., M. Keulertz, J. Warner and J.A. Allan (2012) ‘Virtual Water Hegemony: The Role of Agribusiness in Global Water Governance’, *Water International*, 37(2), pp. 169–182, DOI: 10.1080/02508060.2012.662734.

South China Morning Post (2012) ‘Richard Elman Finds Noble Group Successor’, *South China Morning Post*, 10 November, http://www.scmp.com/business/commodities/article/1078987/richard-elman-finds-noble-group-successor (accessed on 19 April 2014).

Stevens, A. (2007) ‘The Boardroom: Richard Elman, Founder and Ceo, Noble Group’, *CNN*, 24 September, http://edition.cnn.com/2007/BUSINESS/09/21/boardroom.elman/index.html (accessed on 19 April 2014).

Timmer, C.P. (2013) ‘Food Security in Asia and the Pacific: The Rapidly Changing Role of Rice’, *Asia & the Pacific Policy Studies*, 1(1), pp. 73–90, DOI: 10.1002/app5.6.

UNCTAD (United Nations Conference on Trade and Development) (2014) *World Investment Report 2014. Investing in the SDGs: An Action Plan* (New York and Geneva: United Nations), http://unctad.org/en/PublicationsLibrary/wir2014_en.pdf (accessed on 2 April 2015).

— — — (2009) *World Investment Report 2009. Transnational Corporations, Agricultural Production and Development* (New York and Geneva: United Nations), http://unctad.org/sections/diae_dir/docs/tdb09_wir_zhan_en.pdf (accessed on 2 April 2015).

USDA (United States Department of Agriculture) (2014) *Foreign Agricultural Service Database. Production, Supply and Distribution (PSD)* (Washington, D.C.: USDA) http://www.fas.usda.gov/psdonline/psdQuery.aspx (accessed on 23 May 2014).

Vassilieva, Y. (2012a) *Privatization of the United Grain Company*, GAIN Report No. RS1240 (Moscow: USDA), http://gain.fas.usda.gov/Recent GAIN Publications/Privatization of the United Grain Company_Moscow_Russian Federation_6-8-2012.pdf (accessed on 2 April 2015).

— — — (2012b) *Russia: Agriculture Development Program 2013–2020*, GAIN Report No. 1270 (Moscow: USDA), http://gain.fas.usda.gov/Recent GAIN Publications/Agriculture Development Program 2013–2020_Moscow_Russian Federation_11-6-2012.pdf (accessed on 2 April 2015).
Verhoeven, H. (2015) Water, Civilisation and Power in Sudan. The Political Economy of Military-Islamist State-Building (Cambridge: Cambridge University Press).

Weis, T. (2007) The Global Food Economy: The Battle for the Future of Farming (London and New York: Zed Books).

Woertz, E. (2013) Oil for Food. The Global Food Crisis and the Middle East (Oxford and New York: Oxford University Press).

——— (2012a) ‘Gulf Sovereign Wealth Funds in International Comparison’, in Woertz, E. (ed.) GCC Financial Markets: The World’s New Money Centers (Berlin and London: Gerlach).

——— (2012b) To Be Expected: Faulty Land Matrix Database Goes Academic…, http://oilforfood.info/?p=423 (accessed on 23 May 2014).

World Bank and FAO (2012) The Grain Chain. Food Security and Managing Wheat Imports in Arab Countries (Rome and Washington, D.C.: FAO–World Bank).