5 Large-scale agricultural investments in drylands

Facing some blind spots in the grabbing debate

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Introduction

Large-scale agricultural investments (LSAIs) surged following the 2008 food and financial crises and increased climate change concerns. Driven by alarming news of price spikes of food and biofuel crops, a plethora of actors began investing in farmland in an attempt to spread financial risks and safeguard access to agricultural commodities. The acceleration of land investments soon caught the attention of scholars and civil society organizations (Cotula et al. 2009; Borras and Franco 2012; Woodhouse 2012; Schoneveld 2017), and the term 'land grabbing' was introduced to conceptualize this phenomenon, even though a number of investors acquiring land complied with host countries' legal frameworks. Consequently, some studies on 'land grabs' used the term without accurate empirical insights, assuming that land was acquired illegally. Another series of studies used the term to denote perceptions of injustice (even if formal laws were not violated), as land was often allocated to external investors at the expense of local populations. This especially happened in areas of the global South and global East, where historical land users often lack state-recognized titles yet consider the land and its resources to be theirs (Alden Wily 2013).

At the (initial) height of academic and media attention to large-scale land acquisitions, 'land grabs' were primarily understood and associated with foreign investors' hunger for farmland and natural resources, and the thus observed and documented 'land rush' triggered a 'literature rush' (Oya 2013). As researchers felt the need to call for direct attention and action, some of the early and quickly commissioned reports and publications were unavoidably marred by untested assumptions and inherent biases (Oya 2013). The urgency to draw attention to 'land grabbing' may also have motivated civil society organizations and activist scholars to somewhat exaggerate 'land grabs'. After all, 'big' numbers help to raise attention. More rigorous and sometimes nuanced analyses and discussions followed shortly after the earliest series of reports. Various characteristics of later work exemplify this evolution.

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First, the geographic scope broadened. Whereas scholars and international media initially focused on Africa, Southeast Asia, and Latin America, scholars working elsewhere in the world soon joined the debate and raised attention to the fact that similar phenomena also took place in their research locales, such as in Eurasia (Visser and Spoor 2011; Petrick et al. 2013).

Second, studies started to highlight the diversity of 'grabbers'. Thus, a more nuanced approach to understanding the characteristics of actors acquiring land appeared. While the Chinese and Gulf states were initially foregrounded as primary actors driving the land rush—China was particularly put under a global magnifying glass (Hofman and Ho 2012; Bräutigam and Zhang 2013; Bräutigam 2015)—over time other investors were recognized, including European pension funds and domestic elites (Fairbairn 2013; Keene et al. 2015). The varying roles of host states in land acquisitions also gained more attention (Bertoncin et al. 2019). These studies highlighted that, on the one hand, the state can be the financer (or one of the financers), thus an investor in large-scale agricultural projects and on the other hand, the state can act as an initiator by attracting investors, or it can act as a facilitator by, for instance, amending state law, allocating land, improving infrastructure, and/or mediating between land users and investors. Of course, these respective roles are context-specific, and the state can wear diverse hats over the course of time. States, elites, and investors are, in turn, internally heterogeneous, with diverse sub-groups pursuing different interests and investment logics (for investor heterogeneity, see Abeygunawardane et al. 2022). In recent years, scholarly literature on LSAIs has also pointed to variations in states, elites, and investors' relationships. They may form alliances and team up or compete, as occurs when investors want land for purposes that conflict with state interests. Importantly, regardless of status, background, or role played, these actors typically perceive the targeted land as empty and underutilized. This understanding or framing goes back to colonial and earlier postcolonial times, when portraying land as 'wasteland' or 'abandoned' justified state appropriation of customarily owned and used land (Haller 2019; Haller et al. 2019). Today, it justifies the transfer of state land to investors (see also Baka 2013; Keene et al. 2015).

Third, following questions about the 'newness' of the global land rush (Edelman et al. 2013), concerted efforts were made to historicize the 'land grab' phenomenon by reference to colonial times and earlier waves of land acquisitions (Alden Wily 2013; Edelman and León 2013). And fourth, the 'land grab' literature came to encompass studies of a wider array of struggles over land going beyond only land acquisitions, which could be interpreted as 'control grabs' in various ways (Oliveira et al. 2021).

In this chapter, we build on and engage with this debate and provide a 'drylands' perspective. We identify a number of tenacious analytical blind spots in the literature that appear when thoroughly exploring some anomalies related to the maps, the labels, and the numbers that circulate in debates on LSAIs in the drylands. We argue that to illuminate these blind spots, more rigorous, longitudinal, and 'on-the-ground' studies are imperative (as also argued by, among others, Lu 2021). A drylands perspective is important, as LSAIs are increasingly targeting

dryland areas, especially the localities where water for irrigation is available—the so-called 'wetlands in drylands' (see Chapter 4, this volume), such as river banks, areas that are flooded annually or seasonally, and/or places where investors can draw on aquifers. After all, aridity means that water, rather than land, is the key resource. Yet wetlands in particular are also essential for dryland populations, whose often mobile livelihoods and complex tenure configurations are frequently overlooked in analyses of the impacts of LSAIs. Our focus is on historical and contemporary large-scale investments in agriculture in the drylands of Africa and Central Asia. In the Land Matrix dataset,[2] a large-scale land acquisition is defined in terms of surface area as an investment of 200 ha or more; the maps contained in Figures 5.1 and 5.2 follow this definition.[3]

The first blind spot concerns the variability of numbers reported on single land acquisitions, raising questions of reliability and accuracy. This appears a stubborn blind spot. It was already noted by other scholars (Edelman 2013; Oya 2013), but is still observable in the literature today, and relates to large-scale land investments in general (not only those oriented towards agriculture), including in the drylands.

The second blind spot emerges when comparing the maps in Figures 5.1 and 5.2. While the map of Africa shows many land acquisitions in dryland areas, the second map, that of Central Asia, appears almost blank, suggesting that only a few land acquisitions have taken place in the region. Yet, as we discuss below, similar struggles over land may exist in both regions—but when not labelled as 'land grabs' or raised publicly and observed so by outsiders, acquisitions may not receive international scholarly attention.

The third blind spot derives from the perception of land as an undivided space, which obscures the subtleties of what an LSAI may mean to (former) land and land-related resource users. First, the focus on land alone conceals the fact that LSAIs may involve the expropriation of a wide range of rights over land-related natural resources that are not easily captured under the 'land' category, particularly common-pool resources such as water, pastures, forests, fisheries, and wildlife/hunting grounds (Haller 2019). The term 'commons grabbing' has emerged in the literature to address this limitation (Haller et al. 2013; Dell'Angelo et al. 2017; Gerber and Haller 2021). In addition, the scholarly focus on the *local* impacts of 'land grabbing' misses out on the relevance of common-pool resources to distant and mobile groups that may use these resources seasonally and intermittently, such as pastoralists. The importance of common-pool resources and the rationale underlying mobility and intermittent use of natural resources are not always sufficiently understood or acknowledged.

The fourth blind spot emerges from the fact that quite a few LSAIs do not fully materialize or are not realized at all. However, instances of failure have rarely been studied, thus concealing the fact that some projects may be less mammoth than the initial figures suggested or even did not take place at all. By neglecting struggles and failures one may miss out on important dynamics and questions: What happens if previously acquired land is de-annexed when an investment fails or scales down? Does the land revert back to the local communities, or does the state take over? And what does this mean for local use and access to resources?

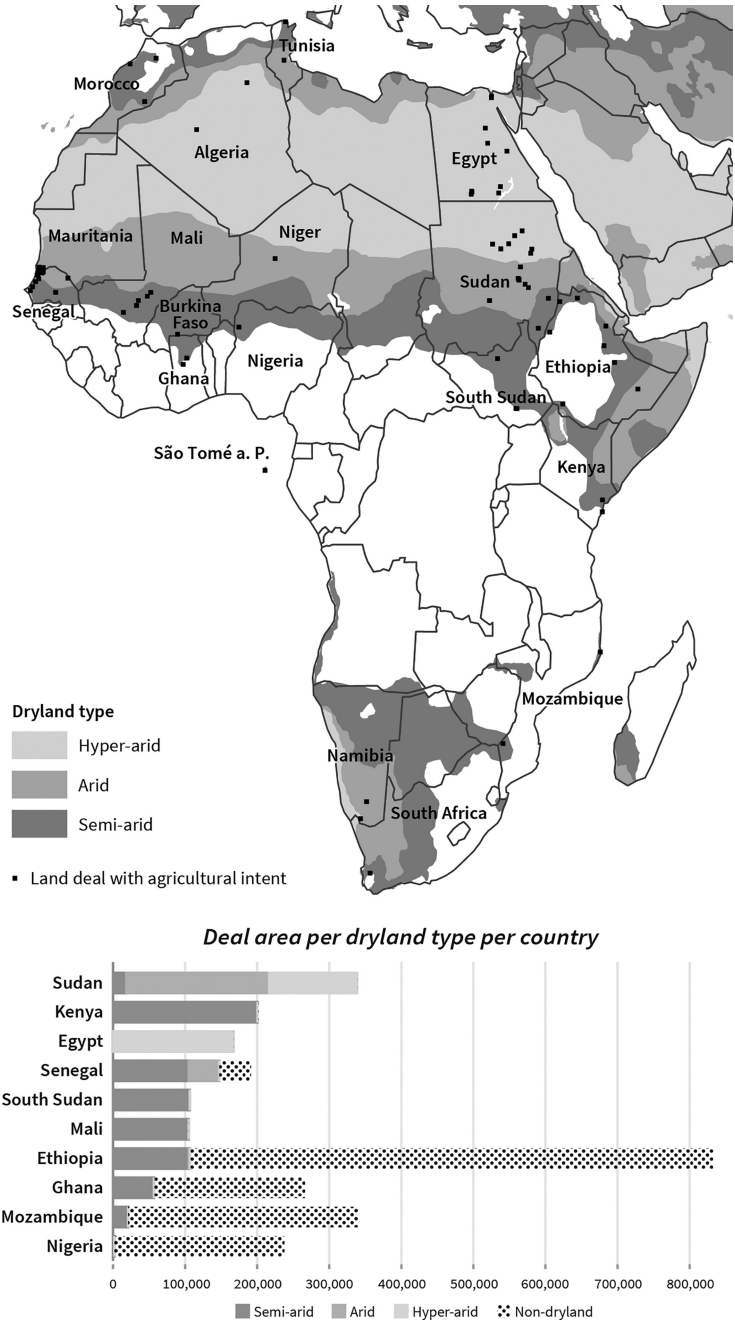

Figure 5.1 Land deals with agricultural intent in Africa (Land Matrix 2020; UNEP-WCMC 2007. Map composition and design by M. Abebe).

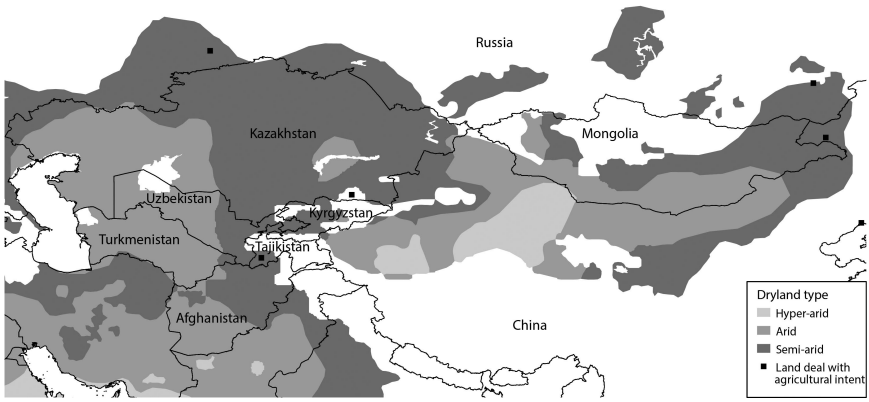

Figure 5.2 Land deals with agricultural intent in Central Asia (Land Matrix 2020; UNEP-WCMC 2007. Map composition and design by K. Hurni).

In the remainder of this chapter, we discuss these blind spots in more depth and illustrate them with concrete examples.

Lost in numbers

Single investments are often quantified in diverse ways, with regard to the extent of land (area) subject to investment. This confuses, and it raises questions: What do the figures actually represent and tell us? Do reported numbers refer to the land that *has been acquired*, or do they refer to the *intended* surface to be acquired but *not yet realized*? And, if realized: How much of the acquired land is actually brought under production, if any at all? Beyond those questions and, perhaps even more important: conflicting, varying numbers raise questions about reliability. Oya (2013) and Edelman (2013) problematized the reliability of data in reports that resulted from the rush to publish. Some of the early studies on LSAIs were published without 'fact checking' on the ground. A part of the studies or reports were cited with numbers being recycled, risking the further dissemination of numbers, which were then subsequently taken for granted (for a critique, see also Bräutigam 2015).

The case of a large-scale investment by a foreign actor in Mozambique illustrates the problem of varying figures. This investment has been subject to various reports on 'land grabbing' (Justiça Ambiental and UNAC 2011; The Oakland Institute 2011; FIAN 2012; Koordinierungsreis Mosambik 2016). It was initiated in 2005 and initially carried the name of Chikweti. In 2014, Chikweti merged with a company called Green Resources, acquiring the latter's name. An overview of the various studies that evaluated this investment sheds light on the fact that

the investment's land area has been reported in various ways, as demonstrated in Table 5.1. Not all reports included data on the categories we identified, and where they included similar categories the figures varied greatly.

The significant variety of numbers and the somehow vague descriptions attached to these numbers paint a confusing picture. Obviously, large figures tend to be foregrounded, and we also observe the recycling of figures, likely without fact-checking. However, reports may also include inconsistencies because researchers faced obstacles in obtaining accurate data. In this regard, we identify several reasons that might explain the discrepancies and contradictions in quantitative reporting of LSAIs. First, data on land investments tend to be controversial, and investors, state, and elite actors may conceal facts in order to prevent protests and international attention. For this reason, investment details may remain opaque, or figures are downplayed. Investors may also wish to hide corrupt agreements or seek to deflate figures to avoid paying high taxes and limit demands for compensation. In summary, data provided, if given at all, can be inaccurate. As stated in one of the studies included in Table 5.1: 'It is difficult to obtain precise information about the exact number and size of DUATs [land-use right titles], since authorities are reluctant to provide access to DUAT titles and the related documents' (FIAN 2012: 17). When the LSAI is a state project, we may observe other dynamics. Diverse state agencies, departments, or ministries may have and/or provide conflicting data. Moreover, agencies responsible for coordination and management may be reluctant to share land-related investment details—for instance, to hide operational inefficiencies and unmet project objectives from higher-level authorities. For all these diverse reasons, numbers may deliberately be manipulated (inflated or deflated) by the various actors involved. One remedy to better assess details about an investment's land area is to undertake research on the ground, perhaps supported by GPS tools or drone technologies, as well as by satellite images.

A deeper look at Table 5.1 highlights another important issue. A chronological order of the numbers, according to the studies' publishing date, shows that the studies were carried out at different times. The studies' timing may partly explain the diversity in numbers, reflecting the investment's trajectory over the course of the years. Indeed, the Chikweti/Green Resources investment changed its project plans several times: it extended its plantations at various times, faced damages due to fires, and underwent a merger that resulted in an increase in the surface area of the project (Kronenburg García et al. 2022). This trajectory exemplifies the fact that investments have lifetimes and evolve or develop over time in sometimes unintended directions. This complicates quantitative assessments, as each phase may involve a distinct category of land. In addition, land investments may involve specific categories of land, some of which emerge as investments mature. For example, when LSAIs are announced, given figures typically refer to the 'intended project area' or the 'potentially irrigated land'. Later on, numbers may come to refer to the land that is actually brought under cultivation, which is often smaller in size than the initially projected surface area. Thus, the variability of figures may also be due to the classification and types of land. For

Table 5.1 Studies reporting numbers (in ha) on the Chikweti/Green Resources investment

Study/report (in order of publication year)	*Intended*	*DUAT (land-use right title)*	*Preliminary DUAT*	*DUAT application in process*	*Planted*	*DUAT revoked*
Åkesson et al. (2009)	100,000 'area to be planted'				6,000	
Fundação Malonda (2010)	100,000 'project area'				13,000	
The Oakland Institute (2011)	140,000 'proposed'	28,970			32,000 'illegally occupied'	14,000
Justiça Ambiental and UNAC (2011)	140,000 'intended expansion'	31,000			32,000 'illegally occupied'	
FIAN (2012)	140,000 'to be managed'	51,000	35,430 (13,454 planted)	45,371	13,000/14,400; 32,000 'illegally occupied'	
IIED (2013)		32,217.77		12,040		
Blid (2014)		28,970		20,000		
Koordinierungsreis Mosambik (2016)	140,000 'concession area', of which 68,500 intended for tree plantations				32,000 'illegally planted'	
World Bank (2016)	258,000 'ambitioned'	63,040			14,250	

this reason, utmost care is required in the quantification of specific investments, and details on categories of land must be meticulously provided. In-depth research and fact checking that take the temporal dimension of projects into account are imperative to quantitatively report on LSAIs.

Lost in labels

The comparison between the two maps (Figures 5.1 and 5.2) points to another quandary that requires attention. While we observe many LSAIs in Africa, Figure 5.2 suggests that there are only a few in Central Asia. Is this correct, or are we overlooking something here? Has Africa really been 'the primary target of land deals' (Keene et al. 2015: 133)? What do maps reveal and what do they conceal?

Significantly, the term 'land grabbing' has not often been pitched in the academic literature on Central Asia, and the region has remained relatively underexplored in critical agrarian studies, one of the main fields of study that has looked into LSAIs. This is not to say that processes of land concentration and illegal seizing of landed wealth—that is, processes which could be categorized as 'land grabs'—have not taken place in the region. This brings us to the importance of attending to context-specific discursive frameworks. Grounded approaches are essential to identifying common processes that occur across the globe, and such processes are sometimes captured in distinct vernacular, or in non-English (and thus less read) publications. As Keene et al. (2015: 132) also noted, 'the language and definitions of drivers is overly structural unless accompanied by an in-depth understanding of the interests motivating different actors in specific land deals'.

In Central Asia, post-socialist agrarian change since the early 1990s generated opportunities for private wealth creation and concentration of land. International donors played an important role in this process, as various organizations pushed for privatization and demarcation of land plots (Petric 2015; Hofman and Visser 2021). While diversity exists in state ownership and land tenure, in most countries the state or ruling elites have sought to control the fragmentation of former state and collective farms' land in the last decades, in which the state, in some instances, granted rural wealth (fertile lands and pastureland) to capitalized, politically well-connected elites, while limiting access to land for the (less capitalized segments of the) rural population. Some of these elites held powerful positions in the Soviet state's administration in the late Soviet period; others emerged in the years afterwards. In Tajikistan, for instance, these include former bureaucrats and bankers, and former chairmen of collective and state farms, who had privileged access to 'grabbable' resources in the early 1990s. They were able to instrumentalize political and social capital to seize control over land and thereupon gradually accumulated wealth. The less privileged Soviet farm workers often had few opportunities to obtain (access to) land and farm assets. As a result, in many localities, post-socialist agrarian transformation triggered processes of land accumulation, and this has often been an incremental and concealed process (what we could call 'slow grabbing').

Two other more pronounced and related yet less recorded dynamics have taken place in Central Asia. First, besides the concentration of arable land ownership, urban elites have gradually accumulated control over pastureland over the past decades, in tandem with, and driven by, their investment in livestock. This trend has been observed by various scholars from and working in Central Asia but has not been recorded in academic literature (Hofman personal communication). Livestock is of high importance for rural livelihoods in most of Central Asia, as 'living capital' sold in times of crises or lifecycle events. Thus, the loss of or shrinking access to pastureland has significant implications. Second, instead of seizing land, elites in Central Asia have captured control over agricultural revenue streams. In Tajikistan, for instance, the Soviet-planned agricultural economy was replaced by a privately controlled planned economy. What thus happened was that—without dispossessing the rural population, but withholding autonomy over farm labour—elites who had co-opted the state could capture revenue streams, such as the revenues derived from cotton, while simultaneously showcasing a restructured countryside, with which they met international donors' demands to liberalize the rural economy (Hofman 2021; Hofman and Visser 2021). These processes of incremental seizure of pastures and control grabbing have been noted by scholars working in and on the Central Asian region, but some did so before the height of the attention paid to 'land grabbing' and perhaps more important, often did not use the 'land grab' vocabulary. Another important aspect is that most of the Central Asian societies have had few links to global social movements (until recently), as authoritarian rulers have been stifling connectivity to external actors, and the political climate discouraged people from openly expressing grievances. As a result, major changes in control over and use of land that have taken place in Central Asia in the wake of the breakdown of the Soviet Union and more recently, concerning pastureland as well as arable (rain-fed and irrigated) land, have often not been picked up in the literature on 'land grabbing'.

Another, yet related factor that explains why Central Asia has not received much attention from scholars focused on 'land grabbing' is the fact that in Central Asia, compared with Africa, only a few cases of 'foreignization' (Zoomers 2010) of land have been observed—that is, land acquisitions by foreign investors. Until recently, only a couple of foreign investors have been engaged in large-scale farming in the region. Chinese land investments were reported in Tajikistan since 2012 (Hofman 2016), and there a number of foreign investors (indirectly) engaged in Kazakhstan's agricultural sector (World Bank 2017). Notably, after lengthy and repeated protests in Kazakhstan in earlier years—mainly driven by fears over the growing presence of Chinese actors—the government of Kazakhstan banned foreign ownership of land (Reuters 2021). Uzbekistan, another Central Asian country opening up its economy since the passing of president Karimov in 2016, has recently been receiving growing attention from foreign investors, but references to 'land' or 'control grabbing' remain few (see Schweisfurth 2021 as an exception).

At any rate, compared with African countries, the relative absence of foreign direct involvement in the rural economies of Central Asia is evident and may be related to several factors. First, Central Asia does not have strong historical links

to Europe or the United States, which reverberates in the region until today in terms of private trade and private investment from Europe and the United States, as well as of scholarly relationships and the presence of international NGOs. There is a broad array of NGOs present in Central Asia (mainly focused on the poorest economies—i.e. Kyrgyzstan and Tajikistan), but these organizations are oriented towards socioeconomic changes and development, and they do not seek to appropriate landed resources for private (profit-oriented) goals. Most of these organizations deliberately approach problems in an apolitical, technical way, including land concentration by elites, and, for instance, the elite-controlled cotton sector of Tajikistan. In other words, these NGOs abstain from engagement in political affairs, assumed to be an implicit requirement to secure a presence on the ground (Hofman and Visser 2021). Second, private companies (as potential investors) from Europe and the United States may consider the political risks of investment in agriculture too high.

Hence, various factors explain why Central Asia has remained more or less outside of scholarly as well as international media attention on 'land grabbing', even though one can observe pronounced inequality in access to land and in elites' control over land in several parts of Central Asia. In Central Asia, instead of transnational corporations or pension funds, it is mostly domestic elites who, sometimes gradually and sometimes instantly, have accumulated land and seized valuable former state assets. The 'land grab' discourse may be geographically confined and shaped, but this is not to say that these developments do not take place in localities where the specific terminology is not used.

The invisibility of common-pool resources

Social impact assessments of LSAIs in drylands tend to overlook the fact that users of land or other natural resources may lack formal titles while holding common access rights and may use the resources together with other (groups of) people. Some users, such as pastoralists, may access and need these resources only intermittently. For pastoralists and shifting cultivators, access to those parts of land is essential, but they may remain invisible in studies conducted only once—that is, in snapshot studies.

A recent study based on Land Matrix data concludes that LSAIs may gravely affect common-pool resources (Giger et al. 2019). The impact of LSAIs on common-pool resources (e.g. pastures, water, fisheries) has long been overlooked in the literature (for a critique, see Mehta et al. 2012; Haller 2019; Gerber and Haller 2021). However, attention is warranted: common-pool resources are key, especially in the drylands, where local communities and social groups depend on these resources for food security, sources of income, and thus livelihood resilience.

Common-pool resources in much of Africa and Central Asia have been subject to major transformations over the past decades, if not centuries. In Central Asia, the most significant overhauls in access rights to land and other natural resources started with the intrusion of Tsarist Russia, and more significantly when the region became part of the Soviet Union. However, this is not to say that there was

no inequality in landed wealth before, but major changes took place in the early 20th century. The Soviet leadership tried to eradicate pastoralism and industrialize arable as well as livestock farming, resulting in larger herds. Over the years, the Soviet state sought to introduce strict pasture use rights based on the units of large-scale farms, which allowed, for instance, (newly built) farms in Tajikistan's lowlands to practise transhumance and bring flocks to the highlands in the summer period, and vice versa. As Cameron (2018) described, groups in Kazakhstan experienced radical changes in the early Soviet years, resulting in a famine in the 1930s that has long been silenced and continues to receive little international attention. All land was nationalized, and the population was forced into Soviet state institutions.

In many countries in Africa, the colonial state started a process of state appropriation and centralized governance as well, that ignored the complex institutions that people in drylands had developed to govern common-pool resources—including different ontological views on what was meant by 'land'—and thereby maintained complex cultural landscape ecosystems (Haller et al. 2013; Haller 2019, 2020). These institutions coordinated users and user groups' access to common-pool resources with relatively few problems, as they incorporated and appreciated the dispersed, variable, and seasonal availability of natural resources characteristic of the drylands (as was the case in parts of pre-Soviet Central Asia as well). In doing so, they guaranteed flexible and mobile resource use and were underpinned by a conception of space as constituted by a constellation of 'places'. These places were continuously reconfigured by the movements of pastoralists, shifting cultivators, and fishermen, according to the availability of resources (Retaillé 1998, 2000; Retaillé and Walther 2011; Haller 2020). Land was not seen as a separate resource but as interrelated with all other resources (Haller 2019).

Colonizers in Africa introduced a different notion of space based on their own understanding, one that was strongly sedentary, based on a two-dimensional geometry and the idea that territory is divisible into political-administrative partitions and land parcels (Pase 2011). This notion was the basis for a key institutional change that would see the transformation of common property into state property. First, colonial authorities divided territories into categories (e.g. land for colonial settlers, protected areas), resulting in a disconnect between 'land' and land-related common-pool resources (e.g. wildlife, pastures, water). This process of resource management fragmentation furthermore separated common-pool resources into units that were governed by separate statutory laws and regulations, units whose management thereupon fell under different state departments and administrative organizations (e.g. department of fisheries, of forestry, etc.; Haller 2019). In this process, 'land' (particularly farmland) became a privileged category subject to property rights, while rights to common-pool resources were denied (becoming invisible to outsiders) as they were nationalized (Haller 2019). Such understandings of land are also evident in much of the literature on 'land grabbing', with its emphasis on 'land' and concomitant invisibility of impacts on common-pool resources and their users.

This classification of and bias in understanding land fed into the ways in which the postcolonial state understood and dealt with 'land' after independence, and

this came to play an important role in the neoliberal privatization policies of the 1990s, as it solidified a preference for private property and individual ownership of land and relegated common property and common-pool resources even further into the shadow (Haller 2019). International donors entering Central Asia after the breakdown of the Soviet Union pushed for legal fragmentation in similar ways through agrarian reforms geared towards land individualization and demarcation. Thus, historical institutional changes and fragmentation processes, in combination with a biased representation of mobile pastoralism as 'traditional' and 'backward' (Pouillon 1990; Ancey and Monas 2005; Haller 2020), have formed the legal basis for past and present appropriations of land and common-pool resources in these different parts of the world (Alden Wily 2013).

In the drylands, LSAIs have particularly affected transhumant pastoralists, whose mobility often reflects a rational, calculated response to seasonal climatic fluctuations (see also Gillin 2021). The impact of enclosures on groups that do not have a permanent presence in the area is often not recognized. Transhumant pastoralists regularly reserve particular pastures and watering places for periods of drought, and they may not frequent these places for years. Losing access to these resources may mean the collapse of their pastoral livelihoods during dry spells (Haller 2020). As a result, investors may not only 'grab' land, but also affect local actors' resilience (Haller et al. 2020). This can happen gradually, when resources are cumulatively taken away under successive waves of commons grabbing, such as experienced by the pastoral Peul in the Senegal River Delta (Benegiamo and Cirillo 2014, 2016, 2018; Cirillo 2017). This river delta was historically inhabited by several Peul lineages of transhumant pastoralists (Audru 1966). The availability of water in this dryland region made the delta attractive for colonial rulers who were interested in developing a large-scale plantation economy using local labour (Boone 2003). Indeed, since the colonial period, several projects to build irrigation systems have been pursued. These projects restricted pastoralists' access to water and pastures, reducing the local grazing capacity (Corniaux et al. 1998). The Peul lost access to collectively used water and land and were forced to adapt by changing their mobility patterns and livelihoods. Some started to engage in sedentary agriculture and reduced their herds to preserve access to the river. Others moved to 'residual zones' not yet affected by agricultural expansion, but this meant that they had to intensify their transhumant movements over shorter distances to navigate circumscribed access to resources (Cirillo 2017). One of these frontier areas was a protected zone, called Ndiael, demarcated around a wetland, where agriculture was forbidden but grazing was allowed. Eventually, this area became the last refuge in the delta for pastoralists pushed away by land enclosures for agriculture. However, in 2012, at the height of the renewed global interest in farmland, the national government allocated 20,000 ha of the protected area to a Senegalese–Italian agricultural company without consulting the resident pastoralists, justifying their allocation by referring to the 'emptiness' of the area (Cirillo 2017) (Figure 5.3). The LSAI threatened pastoralists' already limited access to common-pool resources—hence threatening their pastoral livelihoods (Benegiamo and Cirillo 2018). Following

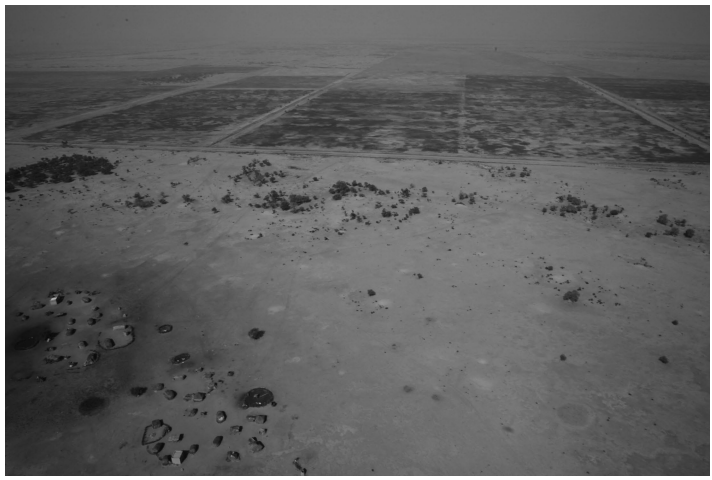

Figure 5.3 Expansion of the agricultural frontier in Ndiael, Senegal (2014). Photo taken by Giada Connestari and Davide Cirillo.

resistance and activist mobilization by a local grassroots movement, supported by national and international NGOs and think tanks, the Italian investor withdrew in 2017. The government of Senegal reduced the area of land allocated for investment to 10,000 ha, which stayed in the hands of the Senegalese investor. In recent years, pastoralists have continued their efforts to reclaim their rights to the land and have protested the lack of support from the government to develop their activities (Cirillo personal communication).

The invisibility of common-pool resources implies that the loss of access to these resources are often not fully or not at all included in compensation schemes. Investors involved in LSAIs regularly compensate local communities for the loss of agricultural land, but they do not always consider the loss of access to common-pool resources. Some investors also implement socio-economic development projects as part of their corporate social responsibility (CSR). When these are provided to people collectively, one could argue that they introduce new or alternative commons—in the form of, for example, schools, health services, community funds, and (irrigation) infrastructure (Haller et al. 2019; Gerber and Haller 2021). Case studies on such interventions in some countries in Africa, however, have shown that these provisions tend to fall short, as they cannot compensate for the resilience that the former (old) commons provided (Haller et al. 2019, 2020; Haller 2020; Gerber and Haller 2021). Compensation payments are often one-off and insufficient, and development projects are of a limited durability. Sometimes promises do not materialize. What is more, gains are often not well distributed (i.e. elite capture), such that those who most depended on the old commons lose most.

In short, the focus on '*land* grabbing' and *local* impacts in the literature on LSAIs and in compensation schemes seems to build on a tradition that neglects

the significance of common-pool resources for rural populations—particularly for non-sedentary periodical users and user groups—and the common-property institutions that regulate their use and access. In the drylands, commons grabbing is at least as important as, if not more important than, the grabbing of 'land' alone.

Forgotten failures

LSAIs do not always materialize or develop according to plan, yet 'failures', of any kind, have often remained invisible or hardly touched upon in the literature (for recent exceptions see Bräutigam 2015; Nolte 2020; Kronenburg García et al. 2022). This may be a result of snapshot studies, as organizations or researchers are unable to conduct longitudinal studies to evaluate how projects evolve over time. The emphasis tends to be on the early stages of development and expansion, often highlighting the impact investments have on local populations. However, attention to failures and operational struggles are of great relevance as they may reveal new and unexpected dynamics. As mentioned earlier, LSAI processes are far from linear: plans can be amended, interrupted, or sometimes completely fail. A range of (external and internal) factors, in isolation or combination, can cause such failures. External factors may include a change in commodity prices, difficulties in accessing international and domestic markets, financial issues, problems in electricity or fuel supply, and so on. Investors often do not report on their difficulties, but some recent studies have highlighted investors' experiences and struggles (Kronenburg García et al. 2022), including conflicts with farmers or pastoralists (see for instance Bertoncin and Pase 2012).

Many failures can be attributed to the 'one-commodity machine' logic (Scott 1998) that underlies LSAIs. In this regard, we identify three causes of failure. The first concerns the 'short-sightedness' of modern agriculture planning: investors are unable or unwilling to see what happens beyond a limited spatial and temporal horizon. They do not evaluate 'long-term outcomes (soil structure, water quality, land tenure relations) and third-party effects' (Scott 1998: 263–264). The second cause of failure concerns the underestimation of the complexity of large-scale agricultural production systems where everything has to work in unison to succeed and at the right time (e.g. arrival of fertilizers and seeds, diesel for tractors, electricity for pumps). The high dependencies among its constituent elements (e.g. hydraulic networks, machinery, pumping systems, maintenance) mean that the production machine is intrinsically fragile and susceptible to ruptures. The 'various components are difficult to fit into place at the same moment: besides the construction of the irrigation works, land has to be distributed and settled, new crops have to be grown and new markets found' (Hirschman 1967: 43). The third causal factor concerns the rigid nature of LSAIs, which hinders the ability to cope with climatic variations and social complexities (Bertoncin and Pase 2017; see Chapter 4, this volume).

When LSAIs enter into crisis or fail, this sometimes provides opportunities for local populations to re-appropriate and regain access to land and other resources. The Chikweti/Green Resources investment discussed earlier eventually

faced difficulties and ran into problems (Kronenburg García et al. 2022), and in 2020 the investor even transferred 54,000 ha of land back to local communities.[4] In other places, re-appropriation may take place in a situation of open access and conflict as a plethora of historical and new users rush to seize assets and benefit from resources. Gradually, however, new understandings and practices for resource use may emerge. This happened in the site of a former large-scale, state-run project near Lake Chad. The South Chad Irrigation Project on the Nigerian shores of Lake Chad was initiated in the 1970s, but it ran into problems during the 1980s' droughts and struggled to recover afterwards owing to reduced government funding. In the late 1980s, the South Chad Irrigation Project was effectively abandoned (Bertoncin and Pase 2017). However, along the intake channel, farmers and pastoralists slowly rebuilt their livelihoods by using abandoned LSAI infrastructures and combining new and old forms of knowledge and techniques in unexpected ways (Bertoncin and Pase 2017; see Chapter 4, this volume). In these interstices, common-use institutions for resources came into being, offering people the opportunity to take advantage of LSAI remnants, but in a way that was sensitive to the climatic and environmental vagaries of the drylands.

Discussion and conclusion

In this chapter, we shed light on the intricacies of studying and analysing LSAIs in dryland areas. We illuminated the blind spots we observed in the literature. These blind spots particularly relate to important aspects, not considered or not fully understood, yet of great relevance or specific to the drylands and essential to understanding the impact of LSAIs on dryland users.

First, we addressed the need to analyse the multidimensional impact of LSAIs by using a longitudinal and historically grounded research design, one that integrates past (colonial and even precolonial) uses and ontologies of land and common-pool resources and the past institutional fabric that regulated access to and management of those resources. Such an approach allows for capturing the ways in which projects or investments change or are amended over time and for how past changes feed into or even facilitate recent dynamics. We need to be attentive to institutional transformations from common to state and private property, because the latter is the basis for LSAIs. Longitudinal studies can also reveal that some projects are less gargantuan than initial figures may have suggested, or that projects have not materialized at all. Thus, it is imperative to regard LSAIs as processes whose outcomes are not predefined. Often LSAIs unfold or evolve in different steps, stage-wise. A longitudinal approach also allows researchers to identify diverse kinds of commons. These include what we could call 'old' commons—that is, the common-pool resources used prior to LSAI implementation, and the locally developed common-property institutions that regulated access and use. 'New' commons may appear in the course of LSAI development, such as the collective compensation payments and CSR projects set up by investors. Lastly, specific kinds of commons may come into being when LSAIs are abandoned or fail. We could call these 'interstitial' commons, which

emerge after local actors re-enter areas and rebuild their livelihoods in alternative ways, among abandoned infrastructures, adapting to the changed access to local resources and in line with the climatic variability and variable resource availability of the drylands. As such, local actors demonstrate agency and adaptive capacity to deal with a changing environment.

Second, in-depth, longitudinal research is also essential to covering the seasonal and inter-annual variability that characterizes drylands. This is particularly imperative to appreciate resources that are not always clearly visible throughout the year. For instance, water resources, or grasslands, may be more or less observable by a layman's eye, as their discernability is affected by seasonal characteristics, particularly erratic rainfall.

Third, and related to the above, drylands imply that analysis should appreciate mobility. Pastoralists are often represented as backward and sometimes even irrational. Some actors may therefore consider drylands as wastelands, useful only for livestock grazing. The value of such areas for mobile livelihoods is not always fully understood. However, it is precisely pastoralists' mobility that shows their adaptive capacity and their resilience. Mobility is what allows them to resiliently make use of common-pool resources, to adapt to the seasonal and spatial availability of land-related resources. The enclosures of land and the pressures to settle undermine pastoralists' livelihoods and may cause their disappearance.

Fourth, we highlighted the need for a different way to understand who or what is defined as 'local'. Local actors may include elite individuals, privileged and under-privileged individuals and groups, who all have their own interests and distinct ties to land and other resources. LSAI impacts are thus differentiated. Relatedly, the continuous and geometric space of the Western and 'sedentary' conception of the world provides for clearly delineated rights to (agricultural) land, but this does not match the characteristics of drylands, where one place is lived and experienced in multiple ways, at different times and by different users. More than a 'topography', there is a need for a 'topology' of space in drylands that ensures a plural, open, and ever-changing view of what is 'local'.

Fifth, we highlighted the importance of attending to framing, discourse, and language—that is, the specific vernacular used by internal and external actors to discuss, talk, and report about trajectories of land-use change in general and LSAIs in particular. This allows for understanding and observing parallel tendencies across localities and continents, similarities that remain concealed if one attends alone to English, French, or Spanish publications that refer to 'land grabbing'. This also means that analyses of impact should look beyond the appropriation of land alone, to also look at the appropriation of water flows and other kinds of commons (commons grabbing). Control grabbing can be equally pronounced, including the control over specific uses of land (labour). The latter may mean that not only do investors or other actors enclose land and therewith block outsiders' ability to enter, but they may also appropriate the power to determine specific use of dryland areas and natural resources. In that way, they take away people's and ecosystems' resilience. This sometimes happens gradually, cumulatively, when LSAIs develop over time.

By placing a spotlight on these blind spots and suggesting ways to examine the impact of LSAIs in drylands, we hope to contribute to the work on and the lives of those who depend on drylands. This should serve to protect the strength of mobile livelihoods and the resources on which they depend. As also noted in various other chapters of this volume, a holistic approach to studying dryland livelihoods, and the lived social and environmental changes and continuities in the drylands, is essential to gain a nuanced understanding of areas undergoing socio-political and environmental change.

Notes

1 We thank Jeroen Warner for feedback on an earlier version of this chapter.
2 https://landmatrix.org/ [Accessed August 2020].
3 'Large', however, can also refer to the size of financial flows or to the impact on livelihoods and/or the environment.
4 https://clubofmozambique.com/news/mozambique-green-resources-relinquishes-54000-hectares-of-land-in-niassa-report-176557/ [Accessed 25 March 2022].

References

Abeygunawardane, D., Kronenburg García, A., Sun, Z., Müller, D., Sitoe, A. and Meyfroidt, P. (2022). Resource frontiers and agglomeration economies: The varied logics of transnational land-based investing in Southern and Eastern Africa. *Ambio* 51: 1535–1551. https://doi.org/10.1007/s13280-021-01682-z

Åkesson, G., Calengo, A. and Tanner, C. (2009). It's not a question of doing or not doing - it's a question of how to do it: Study on community land rights in Niassa Province, Mozambique. Rapporter Institutionen för stad och land 6. Uppsala: SLU.

Alden Wily, L. (2013). Enclosure revisited. Putting the global land rush in historical perspective, in Allan, T., Keulertz, M., Sojamo, S. and Warner, J. (eds) *Handbook of land and water grabs in Africa. Foreign direct investment and food and water security*, pp. 11–23. London/New York: Routledge.

Ancey, V. and Monas, G. (2005). Le pastoralisme au Sénégal, entre politique « moderne » et gestion des risques par les pasteurs. *Tiers-Monde* 46(184): 761–783.

Audru, J. (1966). Etudes des paturages naturels et des problèmes pastoraux dans le Delta du Sénégal. Definition d'une politique d'élevage. 94700 Maison-Alfort: rapport IEMVT 10.

Baka, J. (2013). The political construction of wasteland: Governmentality, land acquisition and social inequality in south India. *Development and Change* 44(2): 409–428.

Benegiamo, M. and Cirillo, D. (2014). No land, no future. A community's struggle to reclaim their land. Action Aid International. http://www.actionaid.org/sites/files/actionaid/no_land_no_future.pdf [Accessed 23 June 2016].

Benegiamo, M. and Cirillo, D. (2016). Agricoltura e pastorizia nel Delta del fiume Senegal. Dai margini ai limiti dello sviluppo. *Tratti Geografici* 1: 115–126.

Benegiamo, M. and Cirillo, D. (2018). Food insecurity risk and global governance guidelines on agriculture: Evidence from the Senegal River Delta. In Forino, G., Bonati, S., and Calandra, L. (eds) *Governance of risk, hazards and disasters. Trends in theory and practice*. London: Routledge, Blackwell.

Bertoncin, M. and Pase, A. (2012). *Autour du Lac Tchad: enjeux, tensions et conflits pour le contrôle de l'eau*. Paris: Harmattan.

Bertoncin, M. and Pase, A. (2017). Interpreting mega-development projects as territorial traps: The case of irrigation schemes on the shores of Lake Chad (State of Borno, Nigeria). *Geographica Helvetica* 72: 243–254. https://doi.org/10.5194/gh-72-243-2017

Bertoncin, M., Pase, A., Quatrida, D. and Turrini, S. (2019). At the junction between state, nature and capital: Irrigation mega-projects in Sudan. *Geoforum* 106: 24–37. https://doi.org/10.1016/j.geoforum.2019.07.002

Blid, N. (2014). *Indústria florestal e movimento sindical em Moçambique: Estudo de base elaborado para o SASK*. Centro de Solidariedade Sindical da Finlândia.

Boone, C. (2003). *Political topographies of the African state. Territorial authority and institutional choice*. Cambridge: Cambridge University Press.

Borras, S.M. and Franco, J. (2012). Global land grabbing and trajectories of agrarian change: A preliminary analysis. *Journal of Agrarian Change* 12(1): 34–59.

Bräutigam, D. (2015). *Will Africa feed China?* Oxford/London: Oxford University Press.

Bräutigam, D. and Zhang, H. (2013). Green dreams: Myth and reality in China's agricultural investment in Africa. *Third World Quarterly* 34(9): 1676–1696.

Cameron, S. (2018). *The hungry steppe. Famine, violence, and the making of Soviet Kazakhstan*. Ithaca, NY: Cornell University Press.

Cirillo, D. (2017). Blind date: Pastoralists meet agribusiness in the Senegal River Delta. PhD Thesis, University of Padova/VU Amsterdam.

Corniaux, C., Cissokho, A., D'Aquino, P. and Sall, C. (1998). *Caractérisation des systèmes d'élevage dans le Delta du fleuve Sénégal, typologie des élevages et cartographie des zones des mouvements de troupeaux*. Dakar: Travaux et études PSI/CORAF/ISRA.

Cotula, L., Vermeulen, S.L. and Keeley, J. (2009). *Land grab or development opportunity? Agricultural investment and international land deals in Africa*. Rome: FAO, IIED, IFAD.

Dell'Angelo, J., D'Odorico, P., Rulli, M.C. and Marchand, P. (2017). The tragedy of the grabbed commons: Coercion and dispossession in the global land rush. *World Development* 92: 1–12.

Edelman, M. (2013). Messy hectares: Questions about the epistemology of land grabbing data. *The Journal of Peasant Studies* 40(3): 485–501.

Edelman, M., and León, A. (2013). Cycles of land grabbing in central America: An argument for history and a case study in the Bajo Aguán, Honduras. *Third World Quarterly* 34(9): 1697–1722.

Edelman, M., Oya, C. and Borras JR, S.M. (2013). Global land grabs: Historical processes, theoretical and methodological implications and current trajectories. *Third World Quarterly* 34(9):1517–1531.

Fairbairn, M. (2013). Indirect dispossession: Domestic power imbalances and foreign access to land in Mozambique. *Development and Change* 44(2): 335–356.

FIAN (2012). *The human rights impacts of tree plantations in Niassa Province, Mozambique*. Heidelberg: FIAN International for the Hands off the Land Alliance.

Fundação Malonda (2010). Informação sobre projectos referentes a 2010.

Gerber, J.D. and Haller, T. (2021). The drama of the grabbed commons: Anti-politics machine and local responses. *The Journal of Peasant Studies* 48(6): 1304–1327. doi:10.1080/03066150.2020.1758673

Giger, M., Nolte, K., Anseeuw, W., Breu, T., Chamberlain, W., Messerli, P., Oberlack, C. and Haller, T. (2019). Impacts of large-scale land acquisitions on common-pool resources: Evidence from the Land Matrix. In Haller, T., Breu, T., de Moor, T., Rohr, C. and Znoj, H. (eds) *The Commons in a Glocal World*, pp. 257–279. London: Routledge.

Gillin, K. (2021). Variability is not uncertainty; mobility is not flexibility: Clarifying concepts in pastoralism studies with evidence from Tajikistan. *Pastoralism* 11: 13.

Haller, T. (2019). The different meanings of land in the age of neoliberalism: Theoretical reflections on commons and resilience grabbing from a social anthropological perspective. *Land* 8(7): 104.

Haller, T. (2020). Institution shopping and resilience grabbing: Changing scapes and grabbing pastoral commons in African floodplain wetlands. *Conservation and Society* 18(3): 252–267.

Haller, T., Adams, T., Gmür, D., Käser, F., Lanz, K., Marfurt, F., Ryser, S., Schubiger, E., Sury, A. and Gerber, J.D. (2019). Large-scale land acquisition as commons grabbing: A comparative study on cases from Africa. In Lozny, L. and McGivern, T. (eds) *Global perspectives on long term community resource management*, pp. 125–164. Berlin/New York: Springer.

Haller, T., Fokou, G., Mbeyale, G. and Meroka, P. (2013). How fit turns into misfit and back: Institutional transformations of pastoral commons in African floodplains. *Ecology and Society* 18(1): 34.

Haller, T., Käser, F. and Ngutu, M. (2020). Does commons grabbing lead to resilience grabbing? The anti-politics machine of neo-liberal agrarian development and local responses. *Land* 9(7): 220. https://doi.org/10.3390/land9070220

Hirschman, A.O. (1967). *Development projects observed.* Washington, DC: The Brookings Institution.

Hofman, I. (2016). Politics or profits along the 'Silk Road': What drives Chinese farms in Tajikistan and helps them thrive? *Eurasian Geography and Economics* 57(3): 457–481.

Hofman, I. (2021). Migration, crop diversification, and adverse incorporation: Understanding the repertoire of contention in rural Tajikistan. *Canadian Journal of Development Studies/ Revue canadienne d'études du développement* 42(4): 499–518.

Hofman, I. and Ho, P. (2012). China's 'developmental outsourcing': A critical examination of Chinese global 'land grabs' discourse. *The Journal of Peasant Studies* 39(1): 1–48.

Hofman, I. and Visser, O. (2021). Towards a geography of window dressing and benign neglect: The state, donors and elites in Tajikistan's trajectories of post-Soviet agrarian change. *Land Use Policy* 111.

IIED [International Institute for Environment and Development]. (2013). *Investing in locally controlled forestry in Mozambique: Potential for promoting sustainable rural development in the province of Niassa*. London: IIED.

Justiça Ambiental and UNAC [União Nacional de Camponeses]. (2011). Lords of the land: Preliminary analysis of the phenomenon of land grabbing in Mozambique. Maputo: Justiça Ambiental and UNAC.

Keene, S., Walsh-Dilley, M., Wolford, W. and Geisler, C. (2015). A view from the top: Examining elites in large-scale land deals. *Canadian Journal of Development Studies/Revue canadienne d'études du développement* 36(2): 131–146. doi:10.1080/02255189.2015.1044503

Koordinierungsreis Mosambik. (2016). *On the wrong track?! Forest plantations in Mozambique*. Bielefeld: Koordinierungskreis Mosambik.

Kronenburg García, A., Meyfroidt, P., Abeygunawardane, D. and Sitoe, A. (2022). Waves and legacies: The making of an investment frontier in Niassa, Mozambique. *Ecology and Society* 27(1): 40.

Lu, J. (2021). Grounding Chinese investment: Encounters between Chinese capital and local land politics in Laos. *Globalizations* 18(3): 422–440.

Mehta, L., Veldwisch, G.J. and Franco, J. (2012). Introduction to the Special Issue: Water grabbing? Focus on the (re)appropriation of finite water resources. *Water Alternatives* 5(2): 193–207.

Nolte, K. (2020). Doomed to fail? Why some land-based investment projects fail. *Applied Geography* 122: 102268.

Oliveira, G. de L.T., McKay, B.M. and Liu, J. (2021). Beyond land grabs: New insights on land struggles and global agrarian change. *Globalizations* 18(3): 321–338.

Oya, C. (2013). Methodological reflections on 'land grab' databases and the 'land grab' literature 'rush'. *The Journal of Peasant Studies* 40(3): 503–520.

Pase, A. (2011). *Linee sulla terra. Confini politici e limiti fondiari in Africa sub sahariana*. Roma: Carocci.

Petric, B. (2015) *Where are all our sheep? Kyrgyzstan, a global political arena*. New York/Oxford: Berghahn.

Petrick, M., Wandel, J. and Karsten, K. (2013). Rediscovering the Virgin Lands: Agricultural investment and rural livelihoods in a Eurasian frontier area. *World Development* 43(3): 164–179.

Pouillon, F. (1990). Sur la 'stagnation' technique chez les pasteurs nomades: Les Peul du Nord-Sénégal entre l'économie politique et l'histoire contemporaine. *Cahier Science Humaine* 26(1–2): 173–192.

Retaillé, D. (1998). L'espace nomade. *Revue de Géographie de Lyon* 73(1): 71–82.

Retaillé, D. (2000). Afrique: le territoire entre identité et développement. *Cahiers d'Outre-Mer* 211: 189–212.

Retaillé, D. and Walther, O. (2011). Spaces of uncertainty: A model of mobilespace in the Sahel. *Singapore Journal of Tropical Geography* 32: 85–101.

Reuters. (2021). Kazakh president orders ban on foreign ownership of farmland. *Reuters* (25 February). https://www.reuters.com/article/us-kazakhstan-farming-land-ownership-idUSKBN2AP0MU.

Schoneveld, G.C. (2017). Host country governance and the African land rush: 7 reasons why large-scale farmland investments fail to contribute to sustainable development. *Geoforum* 83: 119–132.

Schweisfurth, L. (2021). Land-grabs – the new red flag for Uzbek cotton sector. *Apparel Insider* (19 February). https://apparelinsider.com/land-grabs-the-new-red-flag-for-uzbek-cotton-sector/ [Accessed 16 April 2022].

Scott, J.C. (1998). *Seeing like a state. How certain schemes to improve the human condition have failed*. New Haven/London: Yale University Press.

The Oakland Institute. (2011). *Understanding land investment deals in Africa: Country report Mozambique*. Oakland: The Oakland Institute.

UNEP-WCMC (2007). A spatial analysis approach to the global delineation of dryland areas of relevance to the CBD Programme of Work on Dry and Subhumid Lands. Dataset based on spatial analysis between WWF terrestrial ecoregions (WWF-US, 2004) and aridity zones (CRU/UEA; UNEPGRID, 1991). Dataset checked and refined to remove many gaps, overlaps and slivers (July 2014).

Visser, O. and Spoor, M. (2011). Land grabbing in post-Soviet Eurasia: The world's largest agricultural land reserves at stake. *The Journal of Peasant Studies* 38(2): 299–323.

Woodhouse, P. (2012). New investment, old challenges. Land deals and the water constraint in African agriculture. *The Journal of Peasant Studies* 39(3–4): 777–794.

World Bank (2016). Assessing the investment climate in the planted forest sector in Mozambique. Working Paper 1. Washington, DC: World Bank.

World Bank (2017). *Kazakhstan country economic update spring 2017. The economy has bottomed out: What is next?* Washington, DC: World Bank.

Zoomers, A. (2010). Globalisation and the foreignisation of space: Seven processes driving the current global land grab. *The Journal of Peasant Studies* 37(2): 429–447.