# Infrastructure projects and rural politics in northern Kenya: The use of divergent expertise to negotiate the terms of land deals for transport infrastructure

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## Introduction

Once complete, the Lamu Port–South Sudan–Ethiopia Transport (LAPSSET) corridor will connect Kenya, South Sudan and Ethiopia with transport infrastructure, including a new highway network, railway and pipeline. In November 2015, an article in a Kenyan newspaper ran with the headline, 'LAPSSET project runs into headwinds as residents demand full involvement' (Abdi 2015). This article reported that although communities in northern Kenya are not opposed to the transport corridor, they are mobilising nonetheless – trying to ensure that they are involved in the planning of this mega-infrastructure development. Towards Kenya's northern coast on the Indian Ocean, LAPSSET has made national headlines for very different reasons. Communities of small-scale fishers and pastoralists, along with supporting civil society organisations, have advocated to stall or stop construction on components of the corridor out of concern that it will displace their livelihood activities. In other parts of northern Kenya still, new civil society coalitions have emerged with the goal of assessing and monitoring the impacts of LAPSSET on the region's sensitive socio-ecological landscape. Such diverse reactions to LAPSSET reflect the complexity of rural responses to new transport infrastructure, as well as the range of tactics used by rural land users attempting to mitigate the negative impacts or maximise the opportunities associated with such projects.

Reflecting on rural reactions to the construction of new transport infrastructure in sub-Saharan Africa is a particularly timely topic of analysis. Laurance et al. (2015) identify 32 major transport



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corridors that are either planned or under construction across sub-Saharan Africa today. These corridors include networks of transport and logistics infrastructure to facilitate trade and transport flows between sites of investment and centers of economic activity (Kunaka and Carruthers 2014).[1] If and when complete, these new transport corridors will crisscross much of the African continent, spanning over 53,000 kilometres in length (Laurance et al. 2015) and subsuming large swaths of rural land in the process. In Kenya, transport infrastructure development is proceeding at a particularly rapid pace. The country has the highest number of mega-infrastructure projects underway in the East African region, including a number of transport corridors, such as the LAPSSET Corridor, the Northern Corridor and the Eastern and Central Corridors (Deloitte 2016). Despite the unprecedented expansion of transport infrastructure across the continent, the link between transport infrastructure and land access and exclusion remains relatively understudied to-date (Otskuki et al. 2016; Zoomers et al. 2017).

The construction of new transport corridors in sub-Saharan Africa has been driven by a recent resurgence of interest in infrastructure in mainstream African development discourse (Dye 2016; Verhoeven 2011; Verhoeven 2013). Dye (2016) refers to this enthusiasm around infrastructure as the return to 'high modernism' in development policy and planning. This approach to development is informed by technical and economic expertise that suggests that major infrastructure works are a precondition for industrialisation, economic growth and poverty reduction (see: Calderón and Servén 2010; Easterly and Servén 2003). Transport corridors are one piece of this modernist development vision, framed as key to unlocking national and regional economic growth. In addition to improving trade and attracting investors by better linking sites of investment to markets, transport corridors are promised to stimulate development in the rural areas surrounding transport routes. This discourse has been used to rationalise and depoliticise corridor projects, as well as to justify ensuing loss of land or other negative socio-economic and environmental impacts.

Although powerful narratives have been constructed to legitimise the development of new transport corridors, when these projects hit the ground, rural land users have diverse reactions. While some accept transport infrastructure as necessary and beneficial, others remain uneasy about how

[1] Transport corridors are also commonly referred to as development corridors, extractive corridors or growth corridors.

transport corridors threaten their access to or control over land. This article examines how two groups of rural land users with differing degrees of political power – pastoralists and conservationists – are responding to the construction of a transport corridor across northern Kenya's arid landscape. In the analysis that follows, I show how these groups are producing 'divergent expertise' to negotiate key decisions related to the transport corridor in question. Just as expertise has been constructed and circulated 'from above' to legitimise this corridor as key to economic growth and development, counter-claims have been produced and mobilised by rural groups to raise questions and create uncertainty around the benefits and value of transport infrastructure for rural landscapes and the communities that depend on these landscapes. In addition to contributing a case that links the construction of transport infrastructure to land access and exclusion, my analysis builds on research that examines the specific strategies used by rural actors to influence proposed land-use changes , as well as to research that considers how power dynamics shape and constrain the ability of rural groups to negotiate the terms of land deals to their own advantage.

To begin this article, I situate my analysis within two bodies of relevant literature. The first considers how rural groups respond to land deals and attempt to negotiate these deals to protect their interests, while the second explores how expertise is used by various actors to either make land deals possible or to resist land deals. My analysis sits at the intersection of these two research areas, as I illustrate how rural groups use expertise as a means of contesting and negotiating proposed land-use changes. Next, I contextualise my analysis by providing a historical and political overview of the study area, including background on LAPSSET specifically. In this section, I draw attention to the expert claims that have been used to frame LAPSSET as necessary and beneficial for development. Subsequently, I illustrate how rural land users in northern Kenya are responding to proposed land-use changes for the purpose of LAPSSET by creating and deploying expertise that raises questions about the benefits of this corridor for rural landscapes and communities. The concluding discussion draws the various and contending forms of expertise that surround transport corridors into conversation with one another, reflecting on how power dynamics shape the capacity of different groups to influence both where and how new transport infrastructure in built.

This article is informed by the discourse analysis of news stories and documents related to

LAPSSET published between January 2012 and May 2017. In May 2016, fieldwork was conducted in Kenya to validate the analysis of news stories through interviews and site visits. During this initial period of fieldwork, 20 semi-structured, qualitative interviews were conducted with civil society actors, local politicians and community leaders involved in debates about land acquisitions for LAPSSET. These interviews were primarily conducted in northcentral Kenya, which is a region where various planned components of LAPSSET transect. A follow-up trip was conducted in April 2017 to validate the analysis and gather updated insights. In both May 2016 and April 2017, research activities also involved visiting sites of land deals for LAPSSET and observing sites of LAPSSET development. During these site visits, observation and informal discussions were conducted with individuals present at these sites, such as smallholder farmers and pastoralists grazing their livestock, to assess how land that has been set aside for LAPSSET construction is used by rural communities on a day-to-day basis.

**Reactions to proposed land-use changes in rural spaces**

There is a large and growing body of literature that examines what happens 'on the ground' when governments and investors propose land-use changes in rural spaces. Much of this literature has been written in response to the 'global land rush' (Borras et al. 2011; Scoones et al. 2013), despite the fact that debates exist over when exactly this rush for land began and who exactly has been involved in driving it (Borras et al. 2011; Edelman et al. 2016). There are also ongoing debates around how best to quantify the amount of land implicated in this rush, as well as how this rush impacts rural people and economies (Edelman 2013; Scoones et al. 2013; Zoomers et al. 2016). Despite contending perspectives, there is widespread consensus around the fact that there has been increased government and investor interest in accessing and using rural land over the past decade, and that this renewed interest in rural land is driving processes of agrarian change – creating both new opportunities and challenges for rural societies (Edelman 2013; Edelman et al. 2013; Edelman et al. 2016; Li 2014b; Scoones et al. 2013;).

As access to and control over land in rural spaces changes as a result of the renewed rush for rural land, people who depend on access to land for their livelihoods react in varied and complex ways (R. Hall et al. 2015). These reactions can be placed along a broad spectrum, ranging from resisting displacement to seeking compensation to demanding better terms of incorporation (for examples

of this spectrum of rural responses, see special issue by R. Hall et al. 2015). Reactions are varied because land deals of different sizes and in different sectors have diverse impacts on rural populations, but also because rural land users are 'differentiated along lines of class, gender, generation, ethnicity and nationality, and…have historically specific expectations, aspirations and traditions of struggle' (R. Hall et al. 2015, 468). As a result of social differentiation, changing dynamics of land access are perceived and experienced differently by different groups in society and their reactions are therefore also diverse, with some groups welcoming proposed land-use changes with welcome arms and others resisting (Borras and Franco 2013, 1724).

Beyond shaping how people respond to land-use changes, social differentiation also influences the capacity that rural land users have to negotiate the terms of land deals to their own advantage. In the East African context, there is a growing body of research that documents the diversity of tactics used to by rural groups to resist land deals, and evaluates the success of these groups in affecting change. For example, works by Martiniello (2015), Westoby and Lyons (2014) and Cavanagh and Benjaminsen (2015) examine the strategies used by rural communities and NGOs in different parts of Uganda to resist land deals that threaten their eviction, forced relocation, autonomy and sovereignty – illustrating how both everyday practices of resistance and more forceful forms of protest are deployed to negotiate their changing access to land. Similarly, Moreda (2015) explores how the threat of displacement has led local indigenous communities in Ethiopia to engage in 'covert forms' of resistance, such as destroying crops, as well as 'overt forms' of protest, such as encroaching on land acquired by investors. This work acknowledges how historical and social conditions can shape and constrain the success of rural resistance but without dismissing the political agency of rural populations in East African contexts.

The analysis that follows builds on this research in two ways. First, by analysing how two different rural groups – pastoralists and conservationists – are using the same tactic of resistance, but achieving different outcomes, this article contributes to broader discussions around how social inequalities rooted in rural histories can shape and constrain the ability of rural groups to negotiate proposed land-use changes to their advantage. Second, the case study presented demonstrates a specific tactic of resistance being used by rural groups to influence key decisions related to land, that stands apart from tactics considered in other recent work. More specifically, I show how rural

land users are creating and deploying expertise on how rural land in northern Kenya is best used, valued and managed. They use this expertise to counter the discourse of powerful actors, such as the state, investors and international financial institutions, who adopt language of modernization to garner support for land deals for the purpose of infrastructure development. To frame the discussion that follows, a brief overview of recent literature that considers the role of expertise in making and unmaking land deals is useful.

*The role of expertise in enabling and disabling proposed land-use changes*

One set of actors that has begun to receive greater attention in analyses of land deals as of late is 'experts', including consultants, scientists, cartographers, bureaucrats, investors, land brokers and development economists and practitioners. Work by Li (2014), Wolford (2015a; 2015b) and Pritchard et al. (2016) shows how experts create and mobilise knowledge claims that make it possible for governments and foreign investors to 'legitimately' acquire land that was previously used by rural communities. These claims are often informed by ideas about modernisation, which suggest that investment is needed in rural spaces to unlock the potential of what is considered to be unused or unproductive land (Scoones 2015). Expert claims are also used to attract investors to rural spaces that were in the past often neglected by the global economy. For example, Li (2014) points to the role that land brokers play in calculating the ratio of risk to profit around new land deals to present investments as worthwhile, while Wolford (2015b) shows how bilateral development organisations promote and seek support for large-scale agricultural investments by claiming to have the expertise and technology needed to 'feed the world'. Such analyses reveal the role that experts play in making land deals possible and legitimising land deals as necessary for rural development.

Yet, epistemological differences between social groups often results in conflicting knowledge claims about how rural land is best used and managed (Agrawal and Gibson 1999; Goldman, Nadasdy and Turner 2011; Mitchell 2002). In some cases, contending perspectives and divergent understandings about land and its value can be mobilised to counter proposals to invest rural land. For example, Goldstein (2016) illustrates how 'alternate scientific knowledge networks' have emerged in Indonesia to produce divergent expertise about the suitability of Indonesia's peatlands for agricultural development in response to a recent rush to invest. By producing a 'countering

consensus' around how best to manage peatlands – which supports leaving peatlands undeveloped to protect the environment – these networks have been able to create a degree of uncertainty around new agribusiness investments (Goldstein 2016). This illustrates how divergent expertise can be used to make proposed land deals less desirable.

Although the role of expertise has received more attention as of late in research on the global land rush, Pritchard et al. (2016) suggest that this topic still warrants further attention. The analysis in this article is therefore significant, as it demonstrates how rural land users can mobilise alternative ideas about the local impacts of land deals to contests proposed land-use changes. This analysis builds on recent work by Goldstein's (2016) and Lyons et al. (2017), which similarly shows how civil society groups opposed to large-scale land investments circulate counter claims about the suitability of land for investment. Building on this research, I show how, given the right conditions, rural land users can use divergent expertise to frame proposed land deals as unethical, uneconomical or in opposition to public interest. Drawing on the ideas of Hall, Hirsch, and Li (2011), I argue that the production of divergent expertise serves as a 'counter-exclusionary' action, as rural groups can use the knowledge they produce to negotiate or counter attempts to exclude them from accessing land that they need and from using land as they desire.

**Contextualising political reactions from below in northern Kenya**

Northern Kenya has a long, complicated history of contentious land politics and unravelling this history provides important context for understanding the political reactions that are occurring in response to LAPSSET today. Nomadic pastoralism remains the predominant livelihood strategy in the region.[2] Prone to variable rainfall and covered by sparse vegetation and desertous landscape, much of the population in northern Kenya moves seasonally to sustain herds of livestock. As a livelihood system, pastoralism is well adapted to the arid conditions of Kenya's north (Fratkin 1997). The complex set of practices and knowledges embedded within this livelihood system enable people to make use of dryland areas, where the success of other land uses, likes farming, has conventionally been constrained. In addition to being well-suited for the environment, pastoralism also makes important contributions to the national and regional economy: Estimates

[2] There is much differentiation between pastoralist groups; however, most groups in this area — including the Maasai, Samburu, and Turkana — practice similar livelihoods and use similar land management practices, migrating seasonally along traditional routes to conserve grasing lands (Fratkin 1994; 1997; Cately et al. 2013).

suggest that pastoralism contributes about 13 per cent of GDP to Kenya's economy and market opportunities for pastoralists are growing due to Kenya's expanding and urbanising middle-class (IRIN 2013). Despite this, many urban Kenyans continue to perceive pastoralism as economically unproductive and an obstacle to national modernity and progress (Cately et al. 2013). As the government's recently updated policy on northern Kenya explains: 'For many Kenyans, the north of their country is a primitive, unfamiliar, even threatening, place. They see it as a hardship area: remote, insecure, hostile, hot, and resistant to change' (RoK 2012, 109).

Such perceptions of pastoralism have roots in the colonial era. In the early 1900s, the colonial administration began to allocate public resources disproportionately to the so-called 'more productive' regions of the country, such as the agricultural highlands (Eriksen and Lind 2009). During the same period, many pastoralists were evicted from fertile highlands and pushed either south or north so that white settlers could establish commercial ranches for beef production and large-scale land holdings for sport hunting (German et al. 2016; Sundstrom 2009). Pastoralists, who traditionally relied on the highlands for dry season grazing, were no longer permitted to move their herds into the region. The British effectively created an internal border between northern ('unproductive') and southern ('productive') Kenya by building 'frontier posts'. This served to confine pastoralists to *Afrique inutile* while securing *Afrique utile* for use by the colonial administration, where superior profits could be made (Reno 1999). This approach to governing people and land in Kenya reflects what Li (2010) refers to as the 'politics of let die,' as the colonial administration enclosed large tracts of land so that one subset of the population could benefit at the expense of another.

After independence, the government carried forward certain parts of the colonial agenda – often with the explicit intention of promoting agriculture and sedentarising pastoralists (Cately et al. 2013; Fratkin 1997; Korf, Hagmann and Emmenegger 2015; Schrepfer and Caterina 2014). Kenya's often-quoted first development strategy articulated the rationale for continuing with minimal state involvement in the north. It recommended that 'development money should be invested where it will yield the largest increase in net output,' with the goal of 'favour[ing] the development of areas with abundant natural resources, good land and rainfall, transport and power facilities, and people receptive to and active in development' (RoK 1965). This approach to

allocating public funds was based on the assumption that the benefits of agricultural development would eventually trickle down to benefit less productive regions of the country reflecting a linear approach to rural development that was widely promoted by development economists during this era.

In line with this understanding of rural development, the Kenyan government viewed nomadic pastoralism as a stage of socio-economic development that 'was expected to die a "natural death" in response to modernisation' (Idris 2011). Rather than seeking to develop and benefit from livestock trade, much of the government intervention in the north – as limited as it was – aimed to speed up the process of sedentarisation (Idris 2011). For example, a group ranching scheme was implemented in the 1960s by the Kenyan government, with the support of funding and expertise from the World Bank and other bilateral donors (BurnSilver 2009). Nomadic pastoralists were encouraged to settle on group ranch land, or 'privately titled collective rangelands used for communal livestock production' (Nelson 2012, 3). Like other land titling schemes implemented in other parts of the world during this time, there was a clear 'improving' rationale for settling pastoralists and land enclosure (Li 2007; Li 2014a). Authorities claimed that group ranches would increase communal livestock production and improve land security for pastoralists, as well as facilitate the delivery of government services to pastoralist communities (Nelson 2012).

By the mid-1970s, however, it was evident that most group ranches were failing to live-up to their intended objectives. The enclosed lands could not adequately support livestock: These lands were rapidly degrading, and conflict between pastoralists over resources was increasing at the same time (Nelson 2012). Some group ranches were dissolved or subdivided in light of these problems, while others were taken over by political elites (Sundstrom 2009). The relative failure of the group ranch scheme illustrates how previous attempts by government and development experts to reorganise land use and livelihoods in northern Kenya has produced unintended and often negative consequences for the region's population and ecology.

In the decades that followed, the government occasionally initiated other programmes aimed at settling and modernising pastoralists, but 'with little continuity and limited success' (Elmi and Birch 2013, 3). The government adopted a largely hands-off approach, allowing pastoralists to

return to more flexible land use and management practices. As one civil society advocate explained: 'During those years, the government could not organise pastoralism. They came with development and development could not persist. But pastoralism always continues to persist' (interview with representative of pastoralist civil society organisation, November 2014). Some group ranches consolidated their land by removing fences and sharing resources while others abandoned the ranch system altogether and returned to customary practices for managing land (Sundstrom 2009).

The relative absence of the government during this time created space for non-state actors to exert greater influence over land in the region. As many groups ranches were consolidated or dissolved, the conservation sector gained a new foothold in northern Kenya. Government agencies, along with white settlers who maintained large land holdings in north-central parts of the country, recognised this moment as an opportunity for growing the conservation sector (interview with representative of pastoralist civil society organisation B, Isiolo, May 2016). With the support of international conservation organisations, some settlers-turned-conservationists converted their land for wildlife tourism use, while others encouraged pastoralist to once again combine their land, remove fences and create community conservancies, suggesting that this would benefit both livestock and wildlife populations. Interestingly, claims that were earlier used to promote the group ranch scheme were once again used to encourage pastoralists to form community conservancies and to become participants in biodiversity conservation efforts (Nelson 2012, 4).

Today, the community conservancy scheme is rapidly growing across northern Kenya. This is once again placing new constraints on access to grazing land for those who are not members of conservancies. In many ways, the issues emerging around community conservancies are reminiscent of earlier attempts to reorganise land and livelihoods in northern Kenya, leading one civil society advocate to describe northern Kenya's conservation sector as 'Colonialism Part II' (interview with representative of pastoralist civil society organisation A, Laikipia, May 2016). This sentiment aligns with other critiques of the expanding conservation sector across East Afria, which suggest that conservation has come to play a critical role in the consolidation of power and control over land by both state and non-state actors at the expense of historically marginalized groups (Bersaglio 2017; Gardner 2012; German et al. 2016; Neumann 2002).

**The Lamu Port–South Sudan–Ethiopia Transport (LAPSSET) corridor**

It is in this context that LAPSSET is under construction. LAPSSET includes a 500-meter-wide corridor for transport infrastructure, overlaid by a 50-kilometre-wide economic corridor for industrial and agricultural investments (LCDA 2016). In the transport corridor, railway, highway and pipeline infrastructure is being built. This transport infrastructure 'renders land investible' (Li 2014b) by enabling flows of commodities and capital to circulate between landlocked sites of investment and global markets. In the wider economic corridor, development zones have been planned – including resort cities, special economic zones, export processing zones and agricultural growth zones – to attract further investment. According to authorities, these zones will 'not only ensure that the country is food secure but also lower the cost of living and further provide employment opportunities' for people in northern Kenya (LCDA 2016, 16). This design allows LAPSSET proponents to claim that the corridor is both an effective way of creating conditions that are attractive to investors while simultaneously stimulating rural development.

Different aspects of the LAPSSET corridor are used to justify the project to different audiences. At the national and regional levels, an emphasis has been placed on the necessity of transport infrastructure to Kenya's future. LAPSSET is key to the government's long-term national development plan, titled *Vision 2030*, which aims to transform Kenya into a 'newly-industrialising, middle-income country' by 2030. The government has argued that projects like LAPSSET are needed to achieve this goal, 'open[ing] up the pastoral regions' to investment by improving national interconnectivity (LCDA 2016, 42; 16). LAPSSET has also been framed as essential to unlocking regional economic growth and integration. The corridor will eventually form part of the 'land bridge' linking the east and west coasts of Africa (LCDA 2016), which stands to position Kenya as 'a transport and logistics hub to the continent' (EAC 2016, 52). For this reason, the East African Community (EAC) has identified LAPSSET as a priority infrastructure project in its *East African Community Vision 2050* and the African Union (AU) has endorsed the project under the Presidential Infrastructure Championship Initiative (PICI), signaling it is 'critical to the continent's regional integration aspiration' (Kabukuru 2016). Claims about the pertinence of LAPSSET to both national economic growth and regional integration have gone a long way in terms of securing political support and financing for the project.

At the local level, various initiatives within the wider economic corridor have been used to garner support for LAPSSET. One major selling point has been claims about how the agricultural growth zones will bolster food security in northern Kenya, which is a pressing issue in the region. Authorities state that LAPSSET will improve 'food self-sufficiency' by drawing commercial investors to the north, as well as by introducing new irrigation technologies that will expand the region's 'habitable and productive area' (LCDA 2016, 16). Authorities also claim that LAPSSET will grow local economies and 'positively impact the livelihoods of over 15 million people living in northern Kenya' as new jobs and enterprise opportunities are created within the economic corridor (LCDA 2016, 17). According to the media, LAPSSET has already created over 5,000 jobs (Ochieng' 2016) and the construction of the port facility in Lamu will create an additional 424,800 jobs in the coming years (Kamau 2017). Finally, LAPSSET authorities and financers, such as the World Bank, state that the corridor will enhance pastoralist livelihoods by expanding opportunities for livestock trade (LCDA 2016; World Bank 2015). It is suggested that greater interconnectivity will make it possible for pastoralists to integrate themselves into global value chains (LCDA 2016; World Bank 2015). In short, the main justifications underpinning LAPSSET at the local level are claims around how the corridor will benefit northern Kenya's population by improving food security and creating new employment and business opportunities for those who adopt a commercial outlook and entrepreneurial logic.

The ideas being circulated in support of LAPSSET reflect the recent resurgence of interest in infrastructure in African development discourse. This discourse emphasises the win-win potential of major infrastructure works, such as transport corridors, based on the belief that such projects can attract and service investors while also positively transforming the lives of the rural poor. As Kuhlmann et al. write, across sub-Saharan Africa, corridors have been framed as *the* key to 'generat[ing] economies of scale sufficient to attract the sort of private sector interest needed to fuel growth, increase exports and, ultimately, spur poverty alleviation' (2011, 5). Like LAPSSET, the Southern Agricultural Growth Corridor of Tanzania (SAGCOT) and the Maputo Development Corridor (MDC) have similarly been promised to improve the business climate while also promoting productivity in agriculture, improving food security and reducing rural poverty (Kuhlmann et al. 2011; Berguis et al. 2017). Influential voices, like Nelson Mandela, and powerful economic organisations, like NEPAD, have played an important role in framing corridor projects

as all but necessary for rural development, and also in helping obtain the financing and political support required to bring these initiatives into effect. Problematically, while development and economic expertis loudly proclaim the widespread benefits of corridors, evidence that corridors generate broad-based welfare gains for people who depend on access to land for their livelihoods remains subject to debate (Berguis et al. 2017; Byiers and Rampa, 2013; Kaarhus 2011; Kuhlmann et al. 2011; Sulle 2015).

**Rural reactions to LAPSSET in northcentral Kenya**

Laurance et al. (2015) estimate that LAPSSET will span 1,500,000 hectares of land once complete. In July 2016, the LAPSSET Corridor Development Authority (LCDA) proposed 'converting the required land along the corridor, whether it be private, community, or public land, to be "Land Banked"' so that access to this land is guaranteed as construction progresses (LCDA 2016, 38). In October 2016, the process of land acquisition for LAPSSET intensified, when the government issued a notice of intent to 'acquire 450 hectares for the Lamu resort, 81,811 hectares for the planned Lamu special economic zone, 10,744 hectares for the Lamu industrial zone, a further 28,500 hectares for the Lamu port and 5,012 hectares for the Isiolo resort city' (Ngugi 2016). The land being acquired for LAPSSET traverses a landscape that is vast in size, as well as in socio-cultural and ecological diversity. For this reason, political reactions to land acquisitions along the LAPSSET corridor are complex and diverse – with some groups knowing very little about the corridor, others eager for construction to proceed and others still deeply concerned about how the corridor is altering their access to and control over land.

***Using legal knowledge to negotiate LAPSSET***

As some of the most predominant land users in the region, pastoralists arguably have the most to lose as a result of land deals for LAPSSET. Moreover, the development of transport infrastructure has unique impacts on nomadic and semi-nomadic pastoralists in comparison to other rural land users. Pastoralists require access to large areas of land to sustain their livestock, but mega-infrastructure projects create new competition over land and resources (Letai 2015; Letai and Tiampati 2015). Mobility is also essential for pastoralists as they must be able to move their livestock to sources of pasture and water during periods of scarcity, but mega-infrastructure projects can place new restrictions on this form of mobility (Letai and Tiampati 2015). Pastoralists

also rely on healthy ecosystems, but mega-infrastructure projects come with the risk of land degradation and adverse environmental impacts (Laurance et al. 2015). In addition to increased air and noise pollution due to more traffic, the potential for pipeline leaks creates a further layer of environmental risk for pastoralist livelihoods.

Another complicating factor for pastoralists is the complexity of tenure arrangements in the north (Letai 2015). Many pastoralists in northern Kenya live and graze on untitled community land. Pastoralists may have access and use rights to such land, which may also be formally held in trust by the government or political elites (interview with civil society advocate, Laikipia, May 2016). This arrangement creates conditions under which pastoralists can potentially be displaced or dispossessed from access to natural resources without compensation if land is needed for the 'common good' of Kenya – such as for transport infrastructure development (Letai and Tiampati 2015).

Perhaps because LAPSSET carries such significant risks for pastoralist livelihoods, pastoralist groups have had strong political reactions to certain components of the corridor. For the past several years, a coalition of pastoralist organisations has planned an annual 'Camel Caravan,' which involves a multi-day march that culminates on United Nations International Day of the World's Indigenous People. This demonstration receives funding from international civil society organisations (CSOs) and serves, in part, as a platform to lobby the government to protect pastoralists against the negative environmental and social impacts of mega-infrastructure developments in northern Kenya. One concern of these groups is a mega-dam that has been proposed to service LAPSSET, including a resort city and the agricultural growth zone (interview with civil society advocate B, Laikipia, May 2016). Representative of pastoralist organisations along the coast have also formed coalitions with international CSOs to organise events, workshops and protests around the need for better consultation with and compensation for those impacted by other components of LAPSSET, such as the port. These efforts illustrate the use of discursive resistance tactics, as pastoralist groups 'utilise normative pressure from sympathetic parties' (Cavanagh and Benjaminsen 2015, 738) to attempt to prevent the government from moving ahead with components of LAPSSET that threaten to displace their livelihood activities.

In addition to engaging in more overt forms of rural resistance, some pastoralist communities and organisations have attempted to negotiate LAPSSET by documenting the impacts of the corridor on pastoralist livelihoods, and then using this research to influence land-use planning. This research shows how the transport corridor will impact the land and resources that pastoralists depend on, as well as documents the lack of environmental management measures in place (interview with civil society advocate B, Laikipia, May 2016). Information has also been collected documenting how land is being acquired for LAPSSET using tactics that violate Indigenous peoples' rights, along with instances where land has been acquired without adequate compensation or without attaining Free, Prior and Informed Consent (FPIC) from pastoralist communities (Kituo Cha Sheria 2014; Sena 2012; SWT 2016; PDNK 2016). Such research presents a challenge to more dominant narratives about the win-win potential of LAPSSET by drawing attention to the ways that the corridor threatens to impede pastoralists' rights and further marginalise pastoralist communities.

To many, LAPSSET is reminiscent of previous attempts to enclose land and dispossess pastoralists of rangelands. Organisations supporting pastoralists' struggles have shown how LAPSSET will place new pressures on grazing land, as large tracts of land that are used for grazing undergo industrial development, often without adequate compensation as a result of insure land tenure. It has been argued that the only option available to pastoralists who depend on this land will be to move north – into more arid regions of the country that also already used by other pastoralists, creating potential for conflict (interview with civil society advocate A, Laikipia, May 2016). In this sense, LAPSSET mirrors earlier interventions where pastoralists were pushed away from more productive regions of the country to create space for agricultural modernisation in the highlands. The government has promised that mitigation measure will be implemented to ensure that pastoralists can still move throughout the region once the corridor is complete – for example, by building overpasses over the transport corridor – and that expanded opportunities for livestock trade will make up for the adverse impacts of the project on pastoralist livelihoods. Although pastoralists groups acknowledge these efforts as a start, they also argue that the promise of economic benefit is not enough because access to and control over 'land is not just the means for economic survival but also the basis of their cultural identity and spiritual wellbeing' (PDNK 2016: 14).

Armed with knowledge about the impacts of LAPSSET on pastoralist livelihoods, cultures and ecologies and indigenous rights, pastoralists are pressuring authorities to rethink proposed land-use changes and compensation processes for LAPSSET (Letai and Tiampati 2015; PDNK 2016; SWT 2016). Some groups have launched court cases over violations in the environmental management of LAPSSET, as well as cases related to inadequate compensation for lost land or the violation of pastoralists' rights. As one civil society advocate explained: 'We are engaged in this work [of producing research] so that we can protect communities by understanding the value of land and communities' right…Now, everyone needs to go to court. The courts need to be filled so that people hear and listen to pastoralists' (interview with civil society advocate B, Laikipia, May 2016, May 2016). International rights organisations have also stepped in to support pastoralist communities and organisations in these social struggles. For example, Cultural Survival and Land Rights Now are involved in raising awareness around the impacts of mega-infrastructure projects on Indigenous peoples' rights in Kenya, while the International Work Group for Indigenous Affairs has visited Kenya to explore and report on the impacts of LAPSSET on Indigenous peoples.

In addition to gaining international attention, producing and circulating research about the impacts of LAPSSET has seemingly created more space for pastoralist organisations and leaders to participate in higher-level political discussions about proposed land-use changes and land deals for LAPSSET. For example, in response to pastoralists' concerns on the coast, the Kenyan government created a steering committee within local government to liaise between communities and government officials about LAPSSET construction (interview with civil society advocate A, Laikipia, May 2016). In other instances, pastoralist organisations have been invited to inform political discussion about compensation frameworks and resettlement plans for communities who will lose grazing land (interview with civil society advocate A, Laikipia, May 2016; interview with civil society advocate B, Laikipia, May 2016).

Finally, and perhaps most importantly, pastoralists leaders and organisations were consulted as part of the recently conducted *Strategic Environmental Assessment for the LAPSSET Corridor* (SEA). The draft SEA states that as a result of LAPSSET, land used 'for pastoralism is likely to slowly be replaced by aggressive, capital intensive commercial investments to take advantage of modern transport infrastructure in form of airport, road and railway' (LCDA 2017, xxv). The documents

continues on, acknowledging that the large-scale takeover of pastoral land for LAPSSET risks replicating problems created for pastoralists during previous 'large-scale government takeover of pastoral lands' (LCDA 2017, xi–xii). Such statements stand in stark contrast to the win-win narrative that has dominated LAPSSET discourse, which largely dismisses the potentially adverse impacts of the project on pastoralist communities. In addition to recognising pastoralists as peoples that stand to be uniquely impacted by LAPSSET, the SEA commits the LCDA to formulating and implementing a mitigation strategy based on the concerns of pastoralist communities (LCDA 2017). Thus, the evidence collected and circulated by pastoralist communities and organisations about the impacts of LAPSSET on their livelihoods has begun to inform higher-level discussions on land-use planning for LAPSSET, at least discursively.

***Using biodiversity science and ecosystem valuation to negotiate LAPSSET***

Next to pastoralism, conservation is likely the most dominant land use in northern Kenya. The region is home to over 75 percent of the country's wildlife, along with 18 national parks, reserves and sanctuaries and 33 community conservancies (NRT 2015). These spaces support much of Kenya's biodiversity and serve as key migratory routes for animals. Northern Kenya also plays an important role in the conservation of certain endangered species, such as Grevy's zebra, hirola, wild dog, black rhino and elephant. Beyond protecting wildlife, the conservation sector – which includes nature tourism ventures, game viewing activities and biological and ecological research – contributes to the local economy. For example, northern Kenya's largest conservation organisation, NRT, claims to provide some degree of economic support to over 250,000 people in northern Kenya on an annual basis (NRT 2015).

Although the exact route is yet to be determined, LAPSSET transport infrastructure may cut across or run alongside internationally protected heritage sites and world-renowned conservation areas, such as Marsabit National Park and Samburu National Park. The impacts of LAPSSET on conservation efforts in northern Kenya stand to be lasting and potentially harmful. The construction and operation of new highways, access roads, rail lines, and pipelines will disrupt these spaces, as well as wildlife and human/livestock migratory patterns. Given the high environmental costs and potential for habitat destruction, some conservation organisations have gone so far as to claim that LAPPSET's costs may outweigh its benefits (interview with representative of conservation

organisation C, Laikipia, May 2016). They also argue that certain components of the project are 'clearly incompatible' with national and international biodiversity and conservation objectives' (interview with representative of conservation organisation B, Laikipia, May 2016).

In addition to the direct environmental impacts of transport infrastructure, other components of LAPSSET present significant environmental risks from a conservation perspective. For example, the sites selected for the proposed resort cities are in sensitive socio-ecological areas. Isiolo resort city was originally planned for a remote area of northcentral Kenya that has traditionally served as a dry-season grazing ground for pastoralists, as well as an important migratory route for elephants (interview with community leader, Kipsing Gap, May 2016). A new dam in the Ewaso Ng'iro River has been proposed, in part, to service the resort city, as well as to provide irrigation for the agricultural growth zone. If the proposed dam is to go ahead as planned, the reservoir will submerge a total of 2,083 hectares of conservancy land, and additional land will be sequestered for the dam's power station and switchboard (SWT 2016). Submerging this land to create the dam upstream will place new pressures on land and pastures both down and upstream, impacting wildlife, humans and livestock. The dam will also alter the ecology of the Ewaso Ng'iro Basin by affecting the flow of the river and the perennial availability of water (interview with representative of conservation organisation A, Laikipia, May 2016; SWT 2016).

Recognising the various environmental risks that LAPSSET presents, conservation actors in the region – including owners, managers and employees of conservancies and ecotourism ventures; conservation industry associations and interest groups and white landowners – are taking steps to respond to and influence proposed land-use changes for LAPSSET. These actors have attempted to solicit political support from international conservation organisations and multilateral organisations, such as the UNESCO World Heritage Centre (interview with representative of conservation organisation A, Nairobi, May 2016). They have also lobbied local and national politicians to heed their concerns. In communicating with these stakeholders, conservation actors have used their own research documenting the impacts of proposed transport infrastructure on biodiversity efforts in northern Kenya, as well as the region's conservation sector, to influence decisions.

Over the past few years, various conservation groups have produced research that assesses the impacts of LAPSSET, including technical reports that measure, estimate and predict how the corridor will affect biodiversity and sensitive socio-ecological systems in northern Kenya. These groups have conducted integrated technical reviews of the new dam, engaging economists, ecologists, hydrologists, civil engineers and resettlement experts in the process. They have also created maps that portray wildlife ecosystems, human activity and tourism ventures in relation to proposed components of the LAPSSET corridor and illustrate how human and wildlife migratory patterns will be interrupted by new transport infrastructure. Using these studies and maps, conservation actors have assessed the environmental and economic costs of LAPSSET on the conservation sector – for example, illustrating how LAPSSET will drive lost tourism revenues. In doing so, these groups are attempting to ensure that the cost of LAPSSET have been accurately captured in the government's cost-benefit analysis of the project (interview with representative of conservation organisation A, Nairobi, May 2016). Interestingly, studies conducted by conservation actors provide a much more comprehensive valuation of LAPSSET's costs than the government's initial valuation of the corridor, creating a countering consensus around the benefits of this development.

Ultimately, conservation organisations have produced and used countering expert claims about the impacts of LAPSSET on the green economy in northern Kenya as political leverage to pressure LAPSSET authorities, as well as national environmental agencies, to rethink proposed land-use changes and land deals for LAPSSET (Interview with representative of conservation organisation A, Nairobi, May 2016; Interview with representative of conservation organisation B, Laikipia, May 2016). Using their own technical studies to highlight the true costs of the corridor on northern Kenya's sensitive ecosystems and economically-productive conservation industry, conservation organisations have raised questions about the proposed LAPSSET route. The influence of their efforts is evident in the recently published SEA, which includes the recommendation of rerouting the corridor and relocating the resort city to avoid areas that are important for different wildlife species, including elephant sanctuaries and migratory routes (LCDA 2017). While it remains to be seen whether these mitigation measures will be heeded, the proposal to reroute the corridor to protect wildlife habitats demonstrates the successes that conservation actors have had in producing and circulating alterative ideas about how land in northern Kenya should be used, managed and

valued.

**Concluding discussion**

As a flagship project that is driving Kenya's new, long-term national development plan, LAPSSET is promised to attract new investors and industries to northern Kenya by lowering transport times and improving regional integration. In addition to serving and attracting investors, authorities claim that LAPSSET will transform and improve peoples' everyday lives by reducing travel time and travel costs; improving access to markets; bettering government service delivery; creating more secure transport routes; and increasing economic activities and land value in northern Kenya (LCDA 2016). In many ways, LAPSSET serves as both a real and metaphorical pathway towards Kenya's goal of becoming a newly-industrialised, middle-income country by 2030. The advertised benefits of LAPSSET have aided authorities in generating widespread support amongst urban Kenyans, political elites, investors, regional organisations and international financial institutions for this multi-billion dollar project.

However, LAPSSET is unfolding in a rural context where people are deeply attached to and dependent on land. This is true of many pastoralists who see land as fundamental to their identity and wellbeing, but also of many conservationists who maintain strong notions of entitlement to land and wildlife resources in the region. As significant tracts of land have been claimed for infrastructure development, rural groups have expressed their concerns. In some cases, they have engaged in overt acts of resistance, such as marches and blockades. However, it seems that more often, pastoralists organisations and conservation networks in northern Kenya have attempted to negotiate the terms of land deals for LAPSSET by creating a contending set of facts about the benefits and risks of the project which contrast with the government's own assessment. In doing so, these groups have sought to influence decisions related to land acquisition and management to their own advantage.

The success that these groups have had in influencing LAPSSET planning is most clearly reflected in the draft SEA. This document was commissioned following demands from pastoralists organisations and conservation networks for more consultation with rural groups and better environmental management measures before proceeding any further with LAPSSET development.

The text of the document reflects the concerns of these rural groups, stating that the success of the corridor will be based on addressing priority issue areas raised during the SEA stakeholder consultation process, including:

> The issue of Land: This issue was emotively discussed in all the Community level meetings. Communities are apprehensive that their land is being alienated. Communities want protection for their land. Communities want LAPSSET to negotiate with them before acquiring the land (LCDA 2017, 132)

> The issue of Wildlife: Stakeholders in Wildlife are concerned that LAPSSET is traversing critical wildlife habitats in Ijara, Isiolo, Laikipia, Samburu and Marsabit which host vast populations of wildlife outside protected areas with some endangered species…The corridor should realign to avoid high density migratory corridors and provide modalities for traffic separation to allow free movement of wildlife (LCDA 2017, 133)

These statements show how rural groups can inform the contours of land debates by presenting evidence that raises questions and creates uncertainty about the benefits and value of land deals for rural landscapes and societies. In other words, this case illustrates how rural groups can use divergent expertise to disrupt or unsettle the terrain on which land deals occur and stall land acquisition procesess.

At the same time, this case also illustrates how power inequalities shape and constrain the ability of rural groups to use divergent expertise to negotiate the terms of land deals to their advantage. To-date, the concerns of conservation actors have received more attention from LAPSSET authorities than those expressed by other groups. In late 2016, the media began report local officials stating that rerouting LAPSSET to protect wildlife is a 'matter of urgency' (Abdi 2016). In contrast, many local politicians continued to emphasise the 'improving' rationale of LAPSSET in relation to pastoralists, claiming that the transport corridor would better the livelihoods of pastoralist communities rather than impede their rights (interview with community leader, Isiolo, May 2016). Then, in 2017, the SEA proposed rerouting the entire corridor north and relocating the resort city

to avoid habitat fragmentation for wildlife.[3] Importantly, while the newly proposed route will appease many of the concerns of conservationists, it will still fragment and degrade pastoral rangelands.

The proposal to simply push the corridor north to avoid fragmenting conservation areas reflects broader social and historical inequalities in northern Kenya, which continue to undermine pastoralist systems in favour of land uses that are deemed to be more lucrative, modern or desirable. Conservation actors occupy a position of privilege in northcentral Kenya: The green economy is rapidly growing in the region and green agendas have become intimately intertwined in the region's politics (Bersaglio 2017; German et al. 2016). Moreover, the region's conservation efforts have also gained a place of prominence in global discourse, as northcentral Kenya has been recognized as a global biodiversity hotspot. By demonstrating how the initial routing of the corridor may harm biodiversity efforts, as well as the conservation sector at large, it appears that conservation organisations have been able to influence the trajectory of land acquisitions for LAPSSET.

The success of conservation actors in influencing proposed land-use changes and land deals for LAPSSET raises important questions about how existing land inequalities are reproduced as the successful resistance of one group overshadows or undermines the interests of another. In this case, rural land users who are seen as being relatively more important to northern Kenya's economy (i.e. the conservation sector) have been able to circulate expertise to further their own agendas while relatively less powerful rural groups (i.e. pastoralists) have faced an uphill struggle in altering LAPSSET plans, despite the clear impact of the corridor on their livelihoods. Moreover, politicians and lobby groups have also been more receptive of the attempts of conservation actors to influence LAPSSET planning when compared to other groups (interview with representative of conservation organisation D, Nairobi, April 2017). In short, even when rural groups employ the same tactic of resistance, they may achieve different outcomes because those that are seen as more 'efficient' producers or more 'modern' land users can more easily sway powerful actors to amend their plans.

[3] It remains to be seen whether authorities will actually heed the recommendations made in the SEA. As Wolford (2015b) writes, even when gains are made as a result of political mobilisation from below, the 'staying power' of resistance is uncertain given the powerful interests that back land deals.

Ultimately, competing claims about LAPSSET and its impacts on rural society are part of a much larger struggle over if and how transport corridors should be planned and constructed if they are to contribute to development: contending perspectives about transport corridors in the Kenyan context are a microcosm of similar debates taking place across the continent. Proponents of new transport corridors, such as governments and international financial institutions, argue that these spatial development initiatives promise to transform 'underutilized' and 'underproductive' rural areas of Africa by attracting investors and creating new opportunities – benefiting local communities while also driving national and regional development goals, such as economic growth and modernisation. However, across Africa, international conservation organisations, non-governmental human rights organisation and activists often contest such claims. Each guided by their own set of priorities and interests, these groups are demonstrating how the unprecedented expansion of transport infrastructure unfolding across the continent stands to interfere with other development goals, such as those related to biodiversity conservation, climate action, reducing inequality and ensuring equitable access to land. While governments and international financial institutions have begun to acknowledge the concerns of conservation actors – drawing on their expertise to 'green' infrastructure investments[4] – they have been much slower to recognise and mitigate the costs of corridors on people who depend on access to land for their livelihoods. This further demonstrates how power dynamics shape the capacity of different groups to affect change in relation to proposed land-use changes, as well as the need for continued advocacy by rural groups, along with scholars, activists, and practitioners, to push for the incorporation of rural peoples' needs and priorities into transport corridor policy and planning.



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[4] For a detailed scholarly analysis of the new emphasis that is being placed on 'greening' Africa's corridors, see Berguis et al. 2017.

## References


Abdi, A. Lapsset project runs into headwinds as residents demand full involvement. *The Standard.* 3 November 2015.

Agrawal, A., & Gibson, C. C. 1999. Enchantment and disenchantment: the role of community in natural resource conservation. *World Development* 27(4): 629-649.

Bergius, M. 2016. Expanding the Corporate Food Regime in Africa through Agricultural Growth Corridors: The Case of Tanzania. ISS Colloquium Paper No. 27. 4-5 February 2016

Bergius, M., Benjaminsen, T. A., & Widgren, M. 2017. Green economy, Scandinavian investments and agricultural modernisation in Tanzania. *The Journal of Peasant Studies*. Online first: 1–28.

Byiers, B., & Rampa, F. 2013. Corridors of power or plenty? Lessons from Tanzania and Mozambique and implications for CAADP. ECDPM Discussion Paper 138.

Bersaglio, B. 2017. *Safari tourism, the green economy and 'acquiescence' in Laikipia, Kenya: A genealogy of green grab.* Doctoral dissertation. University of Toronto.

Borras Jr, S. M., & Franco, J. C. 2013. Global land grabbing and political reactions 'from below.' *Third World Quarterly 34*(9): 1723–1747.

Borras Jr, S. M., Hall, R., Scoones, I., White, B., & Wolford, W. 2011. Towards a better understanding of global land grabbing: an editorial introduction. *The Journal of Peasant Studies 38*(2): 209-216.

BurnSilver, S.B., 2009. Pathways of continuity and change: Maasai livelihoods in Amboseli, Kajiado District, Kenya. *In Staying Maasai?* 161 – 207. New York: Springer New York.

Calderón, C., and L. Servén 2010. Infrastructure and economic development in Sub-Saharan Africa. *Journal of African Economies* 19(S1): 13-87.

Catley, A., Lind, J., & Scoones, I. 2013. *Pastoralism and development in Africa: Dynamic change at the margins*. New York: Routledge.

Cavanagh, C. J., & Benjaminsen, T. A. 2015. Guerrilla agriculture? A biopolitical guide to illicit cultivation within an IUCN Category II protected area. *Journal of Peasant Studies* 42(3-4): 725-745.

Commons and Lords Hansard, the Official Report of debates in Parliament. Northern Frontier District of Kenya. Lords Sitting. HL Deb 3 April 1963 vol 248 cc600-36.

Deloitte. 2016. Africa's changing infrastructure landscape: Africa Construction Trends Report 2016. Belgium: Deloitte University.

Dye, B., 2016. The return of 'high modernism'? Exploring the changing development paradigm through a Rwandan case study of dam construction. *Journal of Eastern African Studies* 10(2): 303-324.

East African Community. 2016. *East African Community Vision 2050.* East African Secretariat. Arusha, Tanzania.

Easterly, W., & Serven, L. (Eds.). 2003. The limits of stabilisation: infrastructure, public deficits and growth in Latin America. World Bank Publications.

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

Edelman, M., Oya, C., & Borras Jr, S. M. 2013. Global Land Grabs: historical processes, theoretical and methodological implications and current trajectories. *Third World Quarterly* 34(9): 1517-1531.

Edelman, M., Oya, C., & Borras Jr, S. M. (Eds.) 2016. *Global Land Grabs: History, Theory and Method*. Routledge.

Elmi, M. & Birch, I., 2013. Creating Policy Space for Pastoralism in Kenya. Future Agricultures Working Paper 068. IDS, Sussex.

Eriksen, S., & Lind, J. 2009. Adaptation as a political process: Adjusting to drought and conflict in Kenya's drylands. *Environmental management* 43(5): 817-835.

Fourie, E. 2014. Model students: policy emulation, modernisation, and Kenya's Vision 2030. *African affairs: the journal of the Royal African Society* 113(453): 540-562.

Fratkin, E. 1997. Pastoralism: governance and development issues. *Annual review of anthropology* 235-261.

Gardner, B. 2012. Tourism and the politics of the global land grab in Tanzania: markets, appropriation and recognition. *Journal of Peasant Studies* 39(2): 377-402.

German, L. A., Unks, R., & King, E. 2016. Green appropriations through shifting contours of authority and property on a pastoralist commons. *The Journal of Peasant Studies* 1-27.

Goldstein, J. E. 2016. Knowing the subterranean: Land grabbing, oil palm, and divergent expertise in Indonesia's peat soil. *Environment and Planning A* 48(4): 750-770.

Goldman, M. J., Nadasdy, P., & Turner, M. D. 2011. Knowing nature: Conversations at the intersection of political ecology and science studies. University of Chicago Press.

Hall, D., Hirsch, P., & Li, T. M. 2011. *Powers of Exclusion: Land Dilemmas in Southeast Asia.* University of Hawaii Press.

Hall, R., Edelman, M., Borras Jr, S. M., Scoones, I., White, B., & Wolford, W. 2015. Resistance, acquiescence or incorporation? An introduction to land grabbing and political reactions 'from below.' *Journal of Peasant Studies 42*(3-4): 467–488.

Idris, A. 2011. Taking the Camel through the Eye of a Needle: Enhancing Pastoral Resilience through Education Policy in Kenya. *Resilience: Interdisciplinary Perspectives on Science and Humanitarianism* 2: 25-38.

IRIN. Pastoralism's economic contributions are significant but overlooked. 6 May 2013. Nairobi: IRIN.

Kabukuru, W. 2016. A megaproject rises in East Africa. *Africa Renewal Online* August–November 2016.

Kaarhus, R. 2011. Agricultural growth corridors equals land-grabbing? Models, roles and accountabilities in a Mozambican case. In International Conference on Global Land Grabbing: 6–8.

Kunaka, C., & Carruthers, R. 2014. *Trade and Transport Corridor Management Toolkit.* World Bank Publications.

Korf, B., Hagmann, T. & Emmenegger, R. 2015. Respacing African drylands: territorialisation, sedentarisation and indigenous commodification in the Ethiopian pastoral frontier. *Journal of Peasant Studies* 42(5): 881–901.

Kuhlmann, K., Sechler, S., & Guinan, J. 2011. Africa's development corridors as pathways to agricultural development, regional economic integration and food security in Africa. Unpublished a Draft Working Paper. The Aspen Institute.

LCDA. 2016. Brief on LAPSSET Corridor Project.

LCDA and Repcon Associates. 2017. Strategic Environmental Assessment Study in the Master Plan for the LAPSSET Corridor Infrastructure Development Project (LCIDP) – Draft Report. January 2017.

Laurance, W. F., Sloan, S., Weng, L., & Sayer, J. A. 2015. Estimating the environmental costs of Africa's massive 'development corridors'. *Current Biology* 25(24): 3202-3208.

Letai, J. 2015. Role of community land in the development of the ASALS in Kenya. Resource Conflict Institute 1: 1-10.

Letai, J. and Tiampati, M. 2015. Capturing benefits whilst safeguarding livelihoods: The debate over LAPSSET. *Disaster risk reduction: East and Central Africa.*

Li, T. M. 2007. *The will to improve: Governmentality, development, and the practice of politics.* Durham: Duke University Press.

Li, T.M. 2010. To make live or let die? Rural dispossession and the protection of surplus populations. *Antipode* 41, no. s1: 66–93.

Li, T. M. 2014a. Fixing Non-market Subjects: Governing Land and Population in the Global South. *Foucault Studies* 18: 34-48.

Li, T. M. 2014b. What is land? Assembling a resource for global investment. *Transactions of the Institute of British Geographers* 39(4): 589–602.

Lyons, K., & Westoby, P. 2014. Carbon colonialism and the new land grab: Plantation forestry in Uganda and its livelihood impacts. *Journal of Rural Studies* 36: 13-21.

Mitchell, T. 2002. *Rule of experts: Egypt, techno-politics, modernity*. Oakland: University of California Press.

Martiniello, G., 2015. Social struggles in Uganda's Acholiland: understanding responses and resistance to Amuru sugar works. *Journal of Peasant Studies*, *42*(3-4: 653-669.

Moreda, T. 2015. Listening to their silence? The political reaction of affected communities to large-scale land acquisitions: insights from Ethiopia. *Journal of Peasant Studies* 42(3–4): 517–539.

Nelson, F. 2012. *Community rights, conservation and contested land: The politics of natural resource governance in Africa*. New York: Routledge.

Neumann, R.P., 2002. Toward a critical theorisation of conservation enclosures. *Liberation Ecologies: Environment, development and social movements*, *179*.

Ngugi, B. Swazuri team plans Lapsset land payouts. *Business Daily,* 23 October 2016.

Northern Rangelands Trust 2015. NRT State of the Conservancies Report 2014. Lewa: Northern Rangelands Trust.

Ochieng, L. Kenya's infrastructure projects win global award. *Daily Nation*, 11 March 2016.

Otsuki, K., Read, M., & Zoomers, A. 2016. Large Scale Investments in Infrastructure: Competing Policy regimes to Control Connections. The Hague: ICAS Colloquium.

Pastoralist Development Network of Kenya. 2016. LAPSSET: Voices from the Ground. Nairobi: PDNK.

Patel, R. 2013. The long green revolution. *The Journal of Peasant Studies* 40(1): 1-63.

Pritchard, S., Wolf, S. and Wolford, W. 2016. Knowledge and the politics of land. *Environment and Planning A* 48(4): 616–625

Reno, W. 1999. *Warlord politics and African states.* Colorado: Lynne Rienner Publishers.

Republic of Kenya. 2012. Sessional Paper No. 8 of 2012 on National Policy for the Sustainable Development of Northern Kenya and other Arid Lands 'Releasing Our Full Potential'. Office of the Prime Minister. Ministry of State for Development of Northern Kenya and Other Arid Lands.

Samburu Women's Trust. 2016. Report on Indigenous Women and the Lapsset Corridor in Laikipia and Isiolo Counties. Laikipia: Samburu Women's Trust.

Scoones, I. 2015. *Sustainable livelihoods and rural development.* Practical Action Publishing.

Scoones, I., Hall, R., Borras Jr, S. M., White, B., & Wolford, W. 2013. The politics of evidence: methodologies for understanding the global land rush. *Journal of Peasant Studies* 40: 469-483.

Schrepfer, N., & Caterina, M. 2014. On the Margin: Kenya's Pastoralists — from displacement to solutions, a conceptual study on the internal displacement of pastoralists. Internal Displacement Monitoring Centre: Geneva.

Sena, K. 2012. Lamu Port–South Sudan–Ethiopia Transport Corridor (LAPSSET) and Indigenous Peoples in Kenya. Copenhagen: IWGIA.

Sulle, E. 2015. Land Grabbing and Agricultural Commercialisation Duality: Insights from Tanzania's Transformation Agenda. In Chinigò, D. *The new harvest agrarian policies and rural transformation in Southern Africa*. Afriche e Orienti.

Sundstrom, S. 2009. Rangeland privatisation and the Maasai experience: implications for livestock herding, open space, and wildlife conservation in southern Kenya. Doctoral dissertation.

Verhoeven, H. 2011. Dams Are Development': China, the Al-Ingaz Regime and the Political Economy of the Sudanese Nile. *Sudan Looks East: China, India & the Politics of Asian Alternatives.* Edited by Daniel Large and Luke A. Patey. James Currey.

Verhoeven, H. 2013. The Politics of African Energy Development: Ethiopia's Hydro-Agricultural State-Building Strategy and Clashing Paradigms of Water Security. *Philosophical Transactions of the Royal Society A* 371(2002): 1–16.

Wolford, W. 2015a. From Pangaea to Partnership. *Sociology of Development* 1(2): 210-232.

Wolford, W. 2015b. Fixing the land: The role of knowledge in building new models for rural development. *Canadian Food Studies/La Revue Canadienne Des études Sur L'alimentation 2*(2): 225–232.

World Bank. 2015. World Bank Group Approves $500 Million For Eastern Africa Development Corridor. Press release. 11 June 2015.

Zoomers, A., Gekker, A., & Schäfer, M. T. 2016. Between two hypes: Will "big data" help unravel blind spots in understanding the "global land rush?" *Geoforum* 69: 147–159.

Zoomers, A., van Noorloos, F., Otsuki, K., Steel, G., & van Westen, G. (2017). The Rush for Land in an Urbanizing World: From Land Grabbing Toward Developing Safe, Resilient, and Sustainable Cities and Landscapes. *World Development*. Online first.