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What's in a Line?

Clashing concepts of land and territoriality between the Borana pastoralists of Isiolo and Kenyan authorities engaged in regional infrastructure development

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About

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The Feinstein International Center is a research and teaching center based at the Gerald J. and Dorothy R. Friedman School of Nutrition Science and Policy at Tufts University. Its mission is to protect and strengthen the lives, livelihoods, and dignity of people affected by or at risk of hunger or humanitarian crises.

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Abstract

Focusing on the impacts of road construction through the Waso Borana rangelands in Isiolo County, this analysis explores how large infrastructure projects such as the Lamu Port and Southern Sudan–Ethiopia Transport (LAPSSET) Corridor and the Modogashe–Isiolo road deepen local socioeconomic inequalities. These developments trigger new dispossession coupled with structural marginalization with the delayed implementation of the Community Land Act (CLA)¹ and the reclassification of community land, formerly considered “trust land” and used by the state, which enables the state to displace and further restrict access to development benefits. Additionally, these developments trigger the erosion of livelihoods, livestock production, and moral and ecological values that are sacred to the Waso Borana. On a broader scale, northern Kenya has emerged as a key site and an economic frontier for Vision 2030’s large-scale infrastructure agenda. While initiatives like LAPSSET in East Africa are designed to drive national economic growth and reverse the long-term marginalization of the region, they fit into a global pattern of large-scale planning projects that are, in fact, undermining pastoralist livelihoods by eroding land rights, restricting customary mobility, and imposing rigid territorial boundaries, thereby intensifying historical patterns of marginalization and exclusion. This paper explores the clashing concepts of land and territoriality between the Waso Borana pastoralists of Isiolo, and state authorities engaged in regional infrastructure development.

Keywords: Pastoralism, territoriality, land, infrastructure, development, and community land

1 Although Kenya passed the Community Land Act in 2016 to secure communal tenure for communities, its implementation remains uneven across the country. In Isiolo County—particularly in the Waso Borana rangelands—the act has yet to be operationalized, leaving local pastoralist communities vulnerable to land dispossession (Wily, 2018).

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Introduction

This paper interrogates how the construction of a large-scale infrastructure corridor project, slated to transect a large portion of East Africa from the coast of Lamu in Kenya to South Sudan, brings to light conflicting conceptualizations of land and development. The study gives particular attention to the “place of land”² and the conditions of productivity in the culture of the Waso Borana pastoralists, whose ancestral territories lie in a key region of Northern Kenya targeted for the construction of the Lamu Port and Southern Sudan–Ethiopia Transport Corridor (LAPSSET). It also interrogates the role of land and notions of progress and development, ideas which stand in stark contrast to those of the Waso Borana. These ideas have been expressed not by the Borana, but by powerful regional elites, directors of commercial enterprises, and national and local political officials who support the corridor construction and who are poised to benefit from its rapid completion.

This paper foregrounds the voices and concerns of Waso Borana pastoralists, whose land and lives are being reshaped by state-led road infrastructure projects in northern Kenya. The analysis investigates the multifaceted impacts of road construction on Borana sociospatial realities. The study seeks to redress the imbalance created when the voices of pastoralists are disregarded in the national discussions about development, particularly those infrastructure projects taking place in productive pastoral rangelands. Many Borana pastoralists now exhibit reluctance to engage in development projects, given the legacy of harm caused by past interventions. Planning processes and negotiations often face significant challenges in establishing trust and securing access to key decision-makers. This study was therefore designed to draw attention to the voices of herders and to make their way of life visible.

The researcher selected the fate of a specific well-known pair of grove trees, sacred to the Borana, that lies along the route of the projected new road, as the focal point to highlight these contrasting positions. The government had originally scheduled the bulldozing of the trees during the construction of the Modogashe–Isiolo road. The community then mobilized to save them. The land around the trees, essential for the ritual ceremonies that occur at the grove, has already been bulldozed, but at the time of writing, the sacred trees themselves remained standing but under threat by the LAPSSET project construction.

The research for this study, carried out between January 2024 and March 2025, combined participant observation, direct interviews with actors from a range of standpoints in relation to the grove trees, and analysis of documentary evidence to explore the intersecting dynamics

2 The concept of “place of land” is linked to time, memory, a geographical location, and spatial presence. It also has complex physical elements that determine what it looks like (Agnew, 2011).

of land, infrastructure, and community politics among the Borana, on the one hand, and those who are overseeing the Modogashe-Isiolo road construction and who planned the LAPSSET Corridor, on the other. It explored community activities - such as ceremonies at the sacred grove, grassroots efforts to protect trees and land, and internal disputes involving elders, activists, and others—against the backdrop of the unfolding infrastructural project. The research also investigated how decisions were made by authorities and contractors in designing and implementing the project, which intersects with and impacts local values and interests, revealing specific tensions related to territorial control. Central to the analysis is how the Waso Borana understand territory through customary law, spiritual significance, and livestock herding practices, forming a “moral geography.” This geography is increasingly challenged by external impositions, such as mapped boundaries and infrastructure routes like LAPSSET, which introduce new, often disruptive forms of territoriality. The theoretical framework developed by James C. Scott in his book, *Seeing Like a State: How certain schemes to improve the human condition have failed*,³ guides the discussion.

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

What's in a Line?

Sacred and historical spaces like the pair of ancient grove trees along the above-mentioned corridor, ancestral burial sites, and ritual landscapes form part of a people's moral and historical geography. Development-led destruction is increasingly threatening these sacred sites in this area of Kenya, as large-scale industrial changes to the landscape are designed and implemented far from the locations to be impacted. The erasure of such sites through road construction and infrastructure expansion constitutes more than ecological loss; it signals a profound moral rupture at the local level. This destruction is where customary rights, state power, development, and capital intersect and collide. As Livingston (2005) describes, such intrusions produce "moral injury," a disruption of cultural continuity and ethical order through imposed development. This paper examines such a case in detail, bringing to the fore the voices of impacted people who were not part of the planning process.

The central case study selected for this analysis is the fate of a sacred pair of trees revered by the Waso Borana, threatened by a segment of the LAPSSET Corridor, and Modogashe–Isiolo road, an ongoing issue at the time of this research. The ancient grove trees stand in the pathway of the proposed route of the new LAPSSET road and the Modogashe–Isiolo road currently under construction. Although the surrounding land—integral to the ceremonial and communal function of the site—has already been cleared in preparation for the construction, the grove itself remained intact at the time of writing. The community-led effort to resist its destruction had initially saved it in 2022. Participants recounted these stories of resistance firsthand as part of this qualitative research, and they provided the occasion for pointed inquiry and observation by the investigator. The findings reveal a tension between cultural preservation and state-led development imperatives, the latter of which are better known and more extensively addressed in the literature. These data not only highlight the resilience of local communities in defending their heritage in the face of enduring structural neglect but also point to remedies in which both sets of actors may achieve their aims. Such remedies could have implications for the ethical and strategic implementation of other future large-scale development projects in East Africa or globally.

Two major roads are currently under construction in northern Kenya in the Waso Borana rangelands. A Chinese company is undertaking the construction of the 190-kilometer Isiolo–Modogashe road, which is expected to be completed by the end of 2025. Additionally, sections of the larger LAPSSET Corridor project are in progress; in some areas, contractors have begun clearing vegetation and preparing construction plans, while in others, road demarcation has commenced. In the adjacent county where the LAPSSET Corridor originates, certain segments have already been tarmacked (in Lamu and part of Tana River counties).

In the Waso Borana customary territory of Isiolo County, the proposed LAPSSET will span approximately 111 kilometers, with a right-of-way extending five hundred meters in width—

amounting to a permanent loss of fifty-five square kilometers of communal land. Constructed linearly to reduce costs, the highway bisects critical rangelands, disrupts traditional migratory corridors, and threatens vital community institutions. One village slated for demolition is Yaq-Barsadi, home to essential public infrastructure including water points, a mosque, schools, and a dispensary. These services, however, are not slated for replacement. Moreover, compensation is restricted to only account for permanent stone or cement structures; appropriation of communal land itself is excluded due to its legal status as “trust land.” For the past three years, more than twenty households in the village have been prohibited from initiating or renewing construction on their homes—effectively disqualifying them from the limited compensation package offered.

The pastoralist communities who will lose territory under this project are currently experiencing the irreversible loss of ancestral lands without meaningful consultation or inclusion in decisions on routing the road in consideration of critical ecological resources. The planned LAPSET route impacts long-term and short-term water sources which could be preserved through participatory planning discussions. Strategic planning could enable the preservation of critical grazing rangelands in micro-niche locations, which provide essential nutrients required for the health of the animals on which pastoralists depend. Destruction of critical existing routes and residences could be avoided—or the residences relocated—as part of the transection of pastoral territories by large-scale infrastructure. However, at the time of the study, the exclusion of pastoralists from the infrastructure planning processes persisted across Isiolo County and national governance structures.

This study triangulates road construction with the expansive rangelands of the Waso Borana, which serve as vital corridors for pastoralist mobility. The two roads converge at the village of Yaq-Barsadi, which now faces imminent displacement. Adjacent to the settlement lies a concealed pair of grove trees, locally referred to as Yaq—a culturally significant landmark for the Waso Borana pastoralists. Given the strategic and symbolic importance of this rangeland segment, the construction of both roads is set to fundamentally reshape pastoral territoriality and patterns of mobility. Accordingly, this research investigates the projected impacts of these infrastructure developments on the Waso Borana community.

The National and Regional Context

Pastoralism is practiced by over nine million Kenyans who inhabit arid and semi-arid lands (ASALs) that account for over 80% of Kenya’s landmass. The remaining 20% of Kenya’s land mass hosts 80% of the country’s population. Drylands across the Horn of Africa demonstrate high productivity despite their harsh ecological profile, marked by extreme heat, erratic rainfall, and prolonged dry spells. Policymakers and planners should not overlook this fact as they proceed with actions that cripple this sector. Similar dryland areas constitute

approximately 70% of the rest of the Greater Horn, encompassing 95% of Somalia, 70% of Ethiopia, 60% of Uganda, and nearly half of Tanzania. These regions support diverse economic sectors in addition to livestock rearing, including agriculture, tourism, and wildlife, all of which are critical for ensuring national food security. Indeed, most of the meat, milk, and other livestock-derived products consumed in the Horn of Africa originate from the drylands (Mortimore, 2013). Pastoralists manage 75% of Kenya's livestock (Wafula et al., 2022), valued at over USD \$800 million (Bacsi et al., 2023). According to government statistics, semi-arid lands are home to 90% of Kenya's wildlife, a major driver of tourism which accounts for about 12% of the national GDP.

The Borana, one among many of Kenya's pastoralist communities, primarily reside in two of northern Kenya's 29 ASAL counties, known for some of the driest terrains in the country: Marsabit and Isiolo Counties. According to the national census, the total Borana population in Kenya was 276,236 in 2019 (Kenya National Bureau of Statistics, 2019). While diversification and transformation of their traditional livelihood system continues, pastoral production remains central to the Borana economic, social, cultural, and political systems.

Although pastoralist communities in northern Kenya maintain a degree of autonomy in managing their livelihoods and cultural traditions, I have learned from their commentary that the Borana and pastoralists in general are not intrinsically resistant to state-led development initiatives. This raises a critical inquiry: why, then, are pastoralist perspectives persistently marginalized in policy dialogues, particularly in developing land use frameworks that would empower pastoralists to steward their territories in ways that reflect their sociocultural values and ecological contexts? This study sheds light on this question.

Pastoralist Traditional Knowledge and Seasonal Land Management

Pastoralist communities in northern Kenya have developed strategic resource management practices over generations to optimize land use and sustain livestock productivity (Fratkin, 2001; Scoones, 1995). Sophisticated kinship and spiritual structures handle some of this management, ensuring the continuity of knowledge retention and respect for key practices.⁴

4 The Borana are divided into two moieties, Sabbo and Gona, each led by its own Qallu (spiritual leader). This moiety structure remains intact among the Waso Borana and the wider Borana communities in northern Kenya. To this day, Dirre and Liban—sacred sites located in southern Ethiopia—are preserved as cultural and spiritual centers. These centers serve as historical guides to Borana social norms and moral economic values. Until the mid-twentieth century, the Waso Borana actively practiced the Gada system, which was central to their spiritual, political, and cultural life (Hogg, 1981). Hogg further notes that the last Qallu of both moieties in the Waso Valley converted to Islam in the 1970s, ceasing their pilgrimage to Dirre and Liban and their participation in the Gada ceremonies, which occur every eight years. Although most Waso Borana are now Muslim, their cultural identity, traditions, and language remain closely tied to their Ethiopian kin. The Ethiopian Borana

A fundamental aspect of these practices is precisely timed, seasonal livestock movement/migration. These decisions facilitate access to wet and dry season grazing areas by aligning livestock movement with the temporal and spatial availability of forage and water, ensuring resource use does not hinder plant regeneration or deplete water supplies. Customary institutions such as the *Dheda* Council of Elders, a rangeland management council responsible for regulating access to and utilization of natural resources to ensure the long-term viability of grazing lands, traditionally oversee the governance of these resources (Napier & Desta, 2011). This governance system operates through customary laws and regulations that help the *Dheda* promote environmental stewardship and conservation of resources.

During the rainy season (*robaa*), pastoralists move herds to areas with temporary subsurface water resources, while in the dry season (*bona*) they direct herds toward regions with permanent water sources. This rotation mitigates grazing pressure, preserves plant vigor, and facilitates rapid vegetative regeneration (Oba et al., 2012). In instances where certain grazing areas experience excessive utilization, land managers may temporarily set them aside for multiple growing seasons to allow for ecological recovery. Such adaptive strategies demonstrate the intricate balance between traditional ecological knowledge and sustainable pastoral resource management (Behnke et al., 1993). A casual or indifferent observer might erroneously see this as land abandonment and use it to justify the appropriation of such land. In reality, however, this practice signifies careful and strategic resource management and investment in future prosperity by allowing the land to recover and flourish.

The Borana grazing system represents a sophisticated, ecologically attuned form of indigenous environmental governance. Structured around seasonal cycles—wet, post-wet, and dry—this land-use system is rooted in communal knowledge and long-standing adaptation to environmental variability. Innovations such as the integration of camels and selective grazing demonstrate that the Borana are dynamic environmental stewards rather than static traditionalists (Fratkin, 2001). Nonetheless, external pressures, particularly land encroachment and top-down conservation interventions, are increasingly undermining this adaptive capacity. The Borana are active agents in ecosystem management, and interventions that disregard or override their indigenous governance systems risk weakening rather than supporting local climate adaptation efforts (Watson, 2003).

One of the Waso Borana elders in his early 70s participated in this study reflected, “Land is the bone that carries the flesh and the entire body.” This metaphor encapsulates a worldview in which land embodies the historical, cultural, and existential foundation of the Borana people. For Borana pastoralists, land is not merely a spatial asset—it is the axis upon which social life, ecological knowledge, and cosmological beliefs are organized. As custodians of seasonal

continue to uphold the Gada system, which governs their daily lives through a social, political, and economic framework (Baxter et al., 1996).

mobile livelihood system, the Borana regard land as sacred—so essential to survival and identity that its defense is considered a moral and existential imperative.

The Borana regard the landscape as a living archive. Beneath the soil lie the remains of ancestors, underscoring land's sacredness and the ongoing connection to the living; above ground, the skeletal traces of livestock testify to generations of symbiotic life between humans and animals. This relationship to the land and its water sources is more than utilitarian: it is profoundly spiritual and ecological. The seasonal micro-niche rangelands are areas of essential nourishment for livestock. Memories and practice by herders preserve these elements. Pastoralists calibrate customary boundaries, intricately mapped through oral history and pastoral mobility, to microclimatic zones and seasonal ecological rhythms. Each breed—camel, cattle, or goat—thrives within specific ecological niches, reinforcing the inseparability of culture, climate, and animal husbandry.

Pastoralists and the State

In northern Kenya, pastoralist communities sustain their livelihoods primarily through mobile livestock herding, demonstrating resilience in navigating ecological uncertainty through long-standing environmental knowledge and adaptive strategies. Although nonprofit and humanitarian organizations have, in recent decades, introduced support and advocacy initiatives to strengthen pastoral livelihoods, state policy has largely marginalized pastoralism (African Union, 2013). Favoring sedentarized governance and mainstream agricultural models, the Kenyan state has simultaneously pursued development plans aimed at incorporating northern Kenya into national economic circuits. These initiatives—most notably road infrastructure projects and large-scale renewable energy investments in wind and solar power—have drawn increasing interest from external investors, often sidelining pastoralist needs and practices (Schilling et al., 2023).

Introducing lines that cannot be crossed (roads)—which may also become administrative or ethnic boundaries—and thus causing overt physical displacement or forced transhumance into unfamiliar territories, not only disrupts livelihoods but also induces cultural dislocation and dissonance (Catley et al., 2013). In this context, land is not interchangeable—it is inhabited, remembered, and morally charged. As a result, forcing pastoralists to move to new areas and limiting their mobility, especially in dry years, is deeply disruptive, and the disintegration of their relationship to specific land is both visible and visceral. Elders in both Isiolo and Marsabit remember the razing of sacred communal spaces without their consultation. Projects in the name of “development” have flattened landmarks steeped in memory and pastoralist communities recall how technocratic planning overwrote ancestral rights. With the LAPSET Corridor development, all these memories have welled up and found reinforcement: even the prospect of loss is traumatizing to the community members.

Tensions and distrust between Waso Borana and the state remain high, as pastoralists demand recognition of pastoralism as an enduring way of life. Such recognition entails the right to freely move within their customary territorial lands, access formal markets for their products, participate in formal economic systems, and be acknowledged as contributors to national development. For example, implementing the CLA⁵ for the Waso Borana would formally recognize their land as community-owned, enabling the community to receive appropriate compensation for any land appropriated for development.

This legal recognition would also empower them to negotiate infrastructure routes that currently obstruct access to critical resources. At this critical juncture in development planning, however, the state has delayed the implementation of the CLA. This prolonged inaction reinforces the status quo, allowing the state to continue treating pastoralist territories as trust lands and to advance state-centric resource control agendas. In northern Kenya, roads serve as key instruments of resource control. The relationship between the state and pastoralist groups such as the Waso Borana has thus been marked by exclusion, with the government sidelining local voices and pushing forward infrastructure projects without meaningful engagement (Greiner, 2012).

This tension reveals a fundamental incompatibility between the temporalities of pastoral life—rooted in adaptive cycles of ecology — and the accelerated, linear timelines of infrastructural modernity. Since President Mwai Kibaki launched the “Opening Up Northern Kenya” initiative in 2007, an unprecedented influx of megaprojects has targeted the region. These include transport corridors, renewable energy installations, and mineral extraction ventures, all intended to integrate historically marginalized areas into the national economy. This model of integration has frequently resulted in dispossession, marginalization, and the erosion of intricate socioecological systems that have sustained pastoral livelihoods for generations (Greiner et al., 2013; Schilling et al., 2012).

5 The Waso Borana express a strong desire for the full implementation of the Community Land Act (CLA), envisioning a future in which they hold legitimate and collective ownership of their ancestral land. When the act was passed in 2016, the community welcomed it with optimism, anticipating a more inclusive and participatory land governance framework. A few NGOs initiated awareness-raising campaigns in Kina and Sericho wards to inform residents about the provisions of the CLA. However, it has yet to be implemented. As a result, the land continues to be technically classified as a “trust land” under the Isiolo county oversight, while the CLA remains largely symbolic and unimplemented in practice.

Methodology

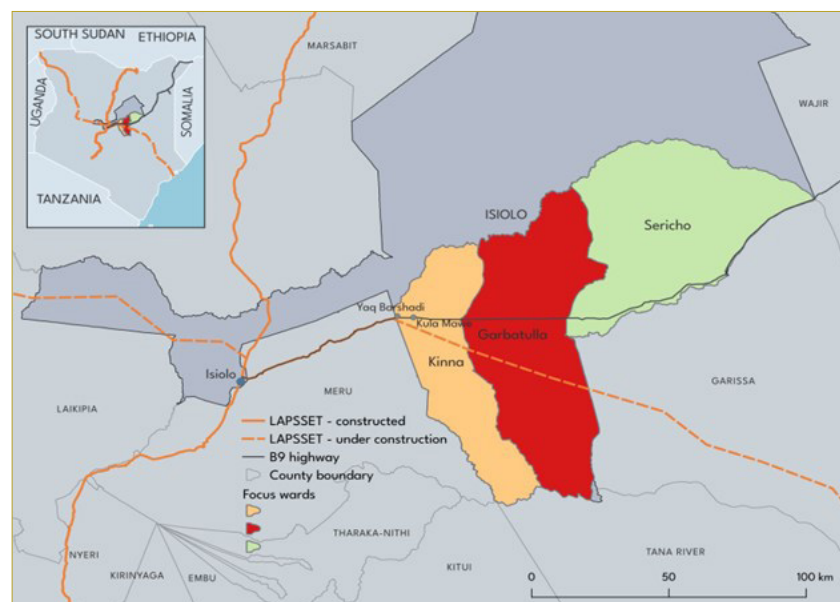
Having grown up as a shepherd in Ethiopia and sharing a closely related language with the Borana—albeit with minor dialectical differences—I was able to engage in immersive ethnographic fieldwork among the northern Kenyan Borana. This linguistic proximity enabled deep co-residence and sustained interaction, facilitating close engagement with the everyday experiences and perspectives of the community.

My fieldwork included: Eight focus group discussions, 12 interviews with NGO personnel and 14 government actors, and over 25 in-depth interviews with Borana community members. NGO personnel were selected based on the specific programs they oversee in the region, particularly those operating within Isiolo County. Government officials were identified according to their institutional mandates, including representatives from the land bureau, the road authority, the National Disaster Risk Management Authority (NDMA), local political offices, and the LAPSSET project. Key informant interviews (KIIs) and focus group discussions were organized by respondents' ward of residence, with initial community entry facilitated by a locally respected NGO that provided access to the region and, more specifically, to the Waso Borana community. The interviews were transcribed by a locally embedded development practitioner who is Borana himself.

Study Site

The researcher collected the primary data in Isiolo County (25,336.1 km²), with additional data gathered from Marsabit County for comparative insights. The study focused on three wards in Isiolo County: Kinna Ward (2019 population: 27,216), Garba Tulla Ward (2019 population: 36,301), and Sericho Ward (2019 population: 36,213), with a total population of 99,730 (see Map 1).

Map 1: Research



Amongst the three wards studied, Kinna Ward experienced the most economic stability, due largely to consistent rainfall and access to downstream flows from adjacent highlands. These factors position Kinna as a comparatively advantaged region within Isiolo County using classic economic criteria. In contrast, Sericho and Garba Tulla Wards, located in the arid lowlands (Garba Tulla Sub-County: 9,819 km²), face significant environmental and socioeconomic vulnerabilities. Despite these challenges, both wards are home to expansive and well-preserved rangelands that are highly suitable for livestock grazing. In recent years, however, recurrent droughts have disrupted traditional livestock rearing practices, prompting a gradual adaptation from cattle herding to the more drought-resilient practice of camel herding, which continues to gain prominence in the region. The forced response to the intervention of large-scale infrastructure, which restricts access to regions identified and essential for maintaining the health of livestock, introduces sudden unanticipated disruption (Kagunyu & Wanjohi, 2014).

The researcher deliberately selected these three wards for their strategic positioning along two infrastructure corridors. The first hub encompasses the Modogashe–Isiolo road, followed by the LAPSET Corridor, which significantly intersects the Waso Borana rangelands. The Modogashe–Isiolo road begins in Sericho Ward, traverses Garba Tula, and reaches Isiolo town. Garba Tula, positioned between Sericho and Kina wards, serves as a pivotal midpoint along this route. In parallel, roads in Kina Ward cross the rangelands inhabited by the Waso Borana and converge near the customary boundary between Waso Borana and Meru County, ultimately continuing toward Isiolo, the county capital. This zone of convergence encompasses many of the wards' rangelands, whose livelihoods depend primarily on livestock herding.

The roads cut across extensive areas of all three wards, rendering them key sites for analyzing how infrastructure development affects pastoral mobility. Each ward exhibits relatively different ecological and territorial characteristics. For example, Garba Tula—located between Sericho and Kina—frequently hosts Somali pastoralists during the dry season due to the accessibility of its rangelands. By contrast, Kina offers fertile landscapes bordered by Meru National Park, Meru County, and Waso Borana, attracting migrating herders during pasture scarcity. At the core of these intersecting rangeland systems lies the infrastructure corridors, which penetrates critical grazing areas and will reshape movement, access, and ecological adaptation patterns.

The data collection in Isiolo county and its environs took place in January 2024 and March 2025. In addition to collecting new data, it ensured the inclusion of voices previously not part of the conversation and introduced diverse participant categories: men, women, civil society groups, and other government authorities and representatives of private commercial enterprises. The researcher also used photographs to document changes, particularly those resulting from ongoing road construction, ensuring the precision and clarity of the dataset.

Map 2: LAPSSET



Map of LAPSSET - Waso -Borana Range lands-Isiolo County

As noted above, the infrastructure development of the LAPSSET Corridor and the Modogashe-Isiolo transportation routes intersect the three wards of the study site, providing the investigator the opportunity to compare circumstances. In addition to the road construction in Isiolo County, there are partially completed airports, and an unfinished mega abattoir. From the developers' standpoint, the decision to transect this region underscores its status for them as a "strategic location." They have overtly highlighted the significant implications for regional integration, levy collection, and socioeconomic development and transformation in their promotional materials (Owino, 2019).

The rangelands in the three study wards are essential to sustaining livestock health and productivity, particularly because of their favorable environmental conditions. The Waso River, which traverses the region, provides a critical and reliable water source for pastoralist communities within these arid zones. However, during prolonged droughts, Sericho and Garba Tula are compelled to migrate towards Kinna Ward, situated on the fringes of the Meru Highlands. With its more stable access to fodder and other essential resources, Kinna Ward serves as a critical refuge and last-resort grazing area during dry seasons, and both roads pass through Kinna ward.

For instance, Molitti Wells remains the most reliable and esteemed water source in Kinna ward, prized not only for its sustainability but also for the unique mineral properties of its water, which are highly beneficial for livestock. Molitti consists of over 17 traditional wells owned by various Borana sub-clans and managed by the Abba Herrega, a respected community-appointed custodian known for his impartiality. Although now semi-traditional with generator-powered pumps, the wells were originally hand-dug, and the costs of fuel and maintenance (e.g., upgrading the troughs with cement) are collectively shared based on livestock ownership. However, the LAPSET Corridor will threaten Molitti, as it is slotted to pass only a few kilometers away. The corridor will intersect traditional livestock routes which ensure pastoral mobility and access to Molitti. Given Molitti's centrality to Waso Borana livelihoods, any disruption to this water point or its access routes will have far-reaching implications. Water itself remains a communal good and is still treated as such, with both financial and labor contributions organized through long-standing cooperative practices among herders. Disruptions to this source and system would have profound consequences for Waso Borana pastoral livelihoods, given Molitti's central role in sustaining the community's herding economy and mobility patterns.

This example of dynamic resource access and strategic mobility underscores the pivotal role of Kinna Ward in safeguarding the livelihoods of the Waso Borana pastoralist communities, particularly during periods of climatic stress. Moreover, the strategic importance of the Waso Borana rangelands, and Kinna Ward specifically, extends beyond Isiolo County. This area is a vital resource hub for Borana pastoralist groups from Isiolo and Marsabit Counties and Ethiopia. This transboundary utility highlights Kinna Ward's broader regional significance in sustaining pastoralist livelihoods amid environmental and socioeconomic challenges.

Waso Borana Culture

Several aspects of the Waso Borana culture reveal deep cultural continuity, one of the most public being traditional Borana dress. Many Borana women traditionally wear the *gorfo*—a soft leather apron or colorful fabric—along with headscarves and beaded or aluminum alloy jewelry. Men traditionally wear white shorts (*hidda*), trousers, or a loincloth secured with a belt, while elders wear the *ruufa*, a colorful turban-like wrap (Sobania 2003; Somjee 1993).

Today, nearly all Waso Borana men wear the *kufi* cap, expressing their adherence to Islam. Historically, the community practiced *Waqeffanna*, a belief in *waqa* (God), before converting to Islam in the early twentieth century (Kassam 1999; Schlee 2013).

Many families in the Waso area of Isiolo County maintain strong ties with relatives in Ethiopia. Cross-border migration is a common and seamless aspect of their pastoral lifestyle. The clan and sub-clan structures serve as the core pillars of customary governance and remain largely intact and functional on both sides of the international border. Wako's (2002) paper on tradition, memory, creativity, and personal narratives details these shared realities. Furthermore, religious affiliation has not affected marriage traditions, including the genealogical rules governing inter-clan marriage restrictions and limitations, clan taboos, and norms.

A deeper examination into Borana daily life reveals that herding, cultural practices, taboos, values, and, most importantly, the moral economy continue to mirror those of Ethiopian Borana. Ethiopian Borana customs still influence cultural activities such as peacemaking, traditional conflict resolution mechanisms, weddings, and other social events. This continuity reflects a governance system that, despite geographical separation, remains culturally unified.

Road Under Construction: Laying Down the Line

Infrastructure projects routinely traverse rural territories, disrupting villages, seasonal water sources, and, notably, sacred sites. The state frequently guides route selection—so critical to the impact on livestock rearing—by imperatives unrelated to community values or livelihood preservation; rather, it seeks to reduce construction costs and advance its strategic interests, in the absence of knowledge about the cultural, ecological, social, and, above all, economic significance that the land holds for local communities and for Kenya as a whole.

The LAPSSET Corridor, officially launched in 2012, is a strategic regional infrastructure initiative designed to enhance East Africa's connectivity and economic integration. Originally conceptualized in the 1970s but incorporated into Kenya's Vision 2030, the project seeks to address spatial inequalities, reduce dependence on Mombasa Port, and provide alternative maritime access for landlocked nations such as South Sudan and Ethiopia. Managed by the LAPSSET Corridor Development Authority (LCDA) since 2013, the project encompasses multimodal infrastructure including highways, railways, pipelines, and airports. As part of the African Union's Presidential Infrastructure Champion Initiatives (PICI), stakeholders also promote LAPSSET as a driver of intra-African trade and regional development (Awuor & Boakye, 2023).



Yaq-Barsadi Village: The Road Section

While the primary focus of this study is the ongoing LAPSET road construction, I also examine the impact of a completed road referred to as the “Isiolo–Moyale road,” which connects Kenya to the Ethiopian border. It was completed in 2017–18. The Modogashe–Isiolo and Lamu Port–Isiolo corridors remain under construction. I use the completed Isiolo–Moyale road as a comparative reference point for the impacts of road construction on pastoralism. One lesson from the Isiolo–Moyale road is that engaging directly with pastoralist representatives offers a vital opportunity to understand, protect, and strengthen this form of livelihood, which holds enduring potential to steward the land sustainably, support large herds, and contribute to the public good.

State Conceptualization

As part of the Kenyan 2030 Agenda, the state’s dream has been to see northern Kenya connected, accessible, and secure, with resources that can be tapped and people able to move around easily. The following is excerpted from an interview with a retired government official in his late 60s, who explains how roads are instrumental for the state and human development:

A few years ago, when the road from Moyale to Isiolo was not finished, it took two

days to reach Isiolo from Moyale. The corrugation is terrible. It breaks the car, and the tires are gone after one or two trips. Pregnant women struggle to travel on this road for hours. Today it takes 6–7 hours. People can easily drive from Moyale to Marsabit then Isiolo, camel milk can reach Isiolo in less than seven hours and Nairobi in a day.

The state has a great interest in economic value, connectivity, security, and above all, resource control, as roads are assumed to be the one of the tools that gives the state an upper hand in controlling the once-not-fully-controlled frontier more effectively. By doing so, the state undermines the great values of pastoralism—its economic contribution to the country's development, ecological value, and their role as ecological stewards—damaging their social and spiritual values by systematically pushing them toward the monetization of ecological sacredness; a Government of Kenya (2012) ASAL policy paper details the potentials of the drylands that need to be unleashed. By developing roads, the government wants to increase connectivity, and eventually, increase gradual sedentarization, which would in turn increase legibility, facilitating tax collection and further control. However, this would lead to a decline in the sense of conviviality that has been embedded in the pastoralism that is inseparable from the ecology and the land where almost everything is communally shared and protected.

Road development brings with it financial capital, political leverage, and mechanisms of social organization. The government uses this infrastructure to implement a formalized governance structure that follows the road network, enabling urban centers such as Isiolo City to emerge and function as hubs of state authority. This infrastructural expansion also attracts domestic and international investors to sectors and regions rich in natural resources. These investments, in turn, reinforce the state's ability to mobilize development financing—whether through loans from international financial institutions or through bilateral and multilateral funding mechanisms. Thus, the road becomes a central hinge in the state's broader project of territorial integration, economic expansion, and political consolidation.

The Kenyan state also envisions regional roads as critical tools for enhancing cross-border trade with neighboring countries, including Ethiopia, South Sudan, and Uganda. State actors argue that inadequate infrastructure in northern Kenya has led to substantial economic losses by preventing the region from realizing its full commercial potential. Senior government officials, including the president, assert that the completion of the LAPSET Corridor will significantly streamline the export of live livestock to Gulf states and other global markets, leveraging northern Kenya's abundant livestock resources. Kenya also views Ethiopia as a potential trading partner. If Ethiopia begins using the Lamu port, Kenya could generate substantial revenue through port levies—an opportunity currently unrealized in terms of economic benefit.

Economic and political elites who propose and implement infrastructure development on a grand scale often imbue it—particularly in the form of roads, economic corridors, and land

deals—with transformative potential. That is the case here with the LAPSSET and Modogashe-Isiolo roads. Planners have been guided by a narrative of infrastructure development tied to past colonial dynamics that need revision or replacement with better policy.

Parallel to the elite and the state, pastoralist communities like the Waso Borana see such a project as a threat to their land in particular, as the land is vital for their way of life. To the Borana, land is more valuable than the livestock it supports; it is an irreplaceable asset. For instance, the land supports certain trees that are environmental signposts: some indicate water sources, while others serve as natural warnings of potential hazards such as disease or conflict. *Acacia senegal*, locally known as *saphansa*, and *Acacia abyssinica* (*dhadacha*) bloom early, signaling rising humidity and the onset of the rainy season. When the rains are delayed, their fallen dry flowers—rich in protein—provide excellent fodder for shoats. Locally referred to as *dhadacha*, the dry fallen flowers and pods of acacia trees during the dry season are highly valued as nutritious feed for both shoats and camels. The knowledge inherent in the changing characteristics of these trees illustrates pastoralists' deep ties to the land. These connections are essential for survival and result in responsible environmental stewardship. The knowledge-keepers value the knowledge of the terrain and the practices which are essential to maintaining its productivity, and they pass it down in sacred rituals requiring them to take responsibility and make key decisions for the good of all. In Borana tradition, people also often compare land to a mother—yet they consider it even more fundamental, as it provides what even a mother cannot, because it never dies.

Results and Discussion

The findings of the study included how development and state actors typically frame roads as markers of progress, while locals perceive them as tools of marginalization and dispossession. While external actors emphasize sedentarization and market access as the sign of development, many Waso Boranas see those same roads (which start as lines on a map) as threats to their mobility, their retention of cultural knowledge, and their ability to train and deploy a healthy labor force—in short, a threat to their pastoral identity. The study contributes to critical debates on infrastructure, development, and the future of pastoralist livelihoods by foregrounding these divergent interpretations, contested meanings, and social imaginaries associated with the LAPSET road infrastructure among the Waso Borana pastoralists.

The following sections explore the political, economic, social, moral, and environmental consequences of the lack of engagement and communication between the state and the pastoralists.

Political Consequences:

"Seeing Like a State", Placing LAPSET Planning in Focus

As James C. Scott (1998) has argued in *Seeing Like a State*, mobile populations—pastoralists, hunter-gatherers, and shifting cultivators—have historically frustrated state ambitions for surveillance, taxation, and administration. The Borana, like other pastoralist groups, resisted incorporation into state logics by virtue of their mobility, flexible political organization, and autonomous ecological knowledge. In Scott's terms, they were "nonstate spaces," difficult to map, discipline, and rule.

As a result, as a project of mapping, discipline, and rule, a particularly violent articulation of this marginalization was applied during the Shifa War (1963–1964). In the wake of Somali irredentist ambitions and accusations that northern communities—especially the Borana—were supporting secession, the postcolonial Kenyan state deployed military force to crush dissent. The response mirrored colonial counterinsurgency tactics: livestock were confiscated or indiscriminately slaughtered, civilians massacred, women raped, and entire populations forcibly relocated. Movement was tightly restricted—famously limited to a five-kilometer radius under the Special Areas Act—creating a carceral geography across the north (Whittaker, 2012). This war on mobility was not merely a security strategy; it was a broader state project of pacification and legibility.

The trauma of the Shifta War continues to echo through time. In Waso Borana communities, especially around Isiolo, the persistent underdevelopment and poverty are not mere policy oversights—they are structural legacies of political exclusion. Political rhetoric of national unity and postcolonial freedom has bypassed northern Kenya, focusing instead on southern Kenya, where sedentary agriculture, economic productivity, and demographic density made state investment more “rational” in the eyes of planners. Roads were built, schools established, and public institutions entrenched in the highlands and coastal zones, while the north remained a “blank space” on the national map—a zone of exception. According to Whittaker’s work, the state of emergency was enforced from 1963–1968.

Today, over half a century later, a second wave of “emancipation” (redress) is unfolding across northern Kenya—this time driven not by nationalist rhetoric but by infrastructure and capital and controlled by actors whose vision very much reflects those who are acting and “seeing like a state.” Three converging forces drive this transformation: the consolidation of state power, the incursion of global capital, and the alignment of internal (elite) and external development interests. Infrastructure—particularly roads—has emerged as the state’s primary tool for integrating and disciplining the periphery. Once too expensive to maintain a presence in the north, the state now sees development not just as a promise to fulfill but as an instrument of governance.

As Scott (1998) notes, states are not only institutions of coercion but also tools of legibility advancement. They seek to render societies “legible” through maps, censuses, registries, and grid-like spatial orders that make populations visible—and therefore governable. In Kenya’s northern frontier, roads and other mega-projects have become material expressions of this legibility. Initially pursued along colonial transport corridors, these efforts now find new momentum through projects like the LAPSET, wind farms in Marsabit, and geothermal energy extraction in the Rift Valley. These infrastructure projects extend the state’s gaze and grip deep into territories that were once marginal and relatively opaque.

The association of infrastructure with state performance is explicit. As one resident of Kina, a woman in her 50s, observed, “For the roads, [[planning]] was [[started]] during Uhuru [Kenyatta]’s regime... some projects are still ongoing under President Ruto’s administration as well.” This underscores how infrastructural projects are closely tied to political regimes and serve as vehicles for state legitimation. Successive administrations use large-scale infrastructure as a means of signaling progress, responsiveness, and authority—what Schindler and Kanai (2021) term “infrastructural statecraft,” whereby the materiality of development becomes a terrain for political performance and competition.

It is characterized by reductive, top-down, state-led design. Infrastructural interventions often generate friction during their initial phases and introduce persistent disjuncture between anticipated benefits and immediate disruptions, especially concerning access,

displacement, and compensation. They create tensions over statutory and customary land regimes and highlight unresolved complexities of legal pluralism and contested sovereignty over land (Boone, 2014).

Respondents also frame development as compensation in terms of social infrastructure improvements. These claims echo anticipatory development logics—investing in infrastructure as a catalyst for future prosperity. The state and planners also narrate infrastructure as social investment, especially in human capital formation while infrastructural expansion also contributes to security improvements. Kenyan state discourses portray infrastructure as a civilizing force in peripheral and historically marginalized regions (Anderson & Broch-Due, 2020). The LAPSET Corridor is thus not only merely an economic conduit but also a spatial strategy for consolidating territorial sovereignty and integrating frontier zones into the national fold.

The corridor is intended to consolidate geopolitical reach. Advocates highlight the corridor's continental dimension, consistent with regional integration initiatives such as the African Union's Programme for Infrastructure Development in Africa (PIDA), which envisions transnational infrastructure as a foundation for continental cohesion and economic transformation.

Finally, the processes are not transparent. Civil servants responsible for implementation face bureaucratic restrictions within strict hierarchies and normative constraints on their abilities to critique or reveal the inner workings of the process.

Moral Consequences:

Land Dispossession, Memory & Resilience in Waso Borana Rangelands

The *Daaba* (1967–1969), a brutal military campaign waged against the Borana community of Isiolo at the height of the State of Emergency, constitutes a foundational trauma with enduring effects on collective memory, identity, and political consciousness. Although the *Daaba* marked a postcolonial state-making agenda, using colonial-era legislation and practices, it also served as a deliberate resource control mechanism in the drylands. The state used it to assert authority over pastoralist populations, compelling compliance with state policies through spatial and institutional reorganization. In its aftermath, new settlements such as Kina, Garba Tula, and Kulamawe were established; a boarding school was constructed in Garba Tula, and a few gravel roads were developed. However, the *Daaba* left the community deeply impoverished as a whole. The Waso Borana were confined to a concentration camp–style enclosure with limited access to pasture (~5km radius), resulting in substantial livestock losses. Development efforts were concentrated in select villages where coercive measures were introduced, including forced sedentarization and agricultural schemes. Today's Kina town became a model site for this transition, exemplifying

the state's preference for a coercive shift from pastoralism to sedentary agriculture. Far more than an episode of isolated violence, *Daaba* is recalled as a demographic and moral rupture—an event marked by state betrayal that redefined the Borana's relationship with the postcolonial Kenyan state.

According to a senior retired expatriate in late 60s, who has worked in NGOs for over 30 years, and who lost his mother during the *Daaba*, “the *Daaba* situation significantly impacted our population, eroded our confidence, and led to excessive use of force against us... 50% were killed, 30% migrated to Somalia, and 20% remained.”

This stark testimony foregrounds the *Daaba* as both a material and symbolic loss, resonating with Scott's critique of state-led efforts to impose “legibility” through the suppression of autonomous, mobile lifeways. Omitted from official national narratives, the *Daaba* is remembered by Borana communities as a deliberate erasure of sovereignty and an act of targeted violence. Yet, amid this rupture, the narrative also highlights resilience. Despite mass displacement and repression, Borana communities returned to reoccupy ancestral lands, sustained cultural continuity through *finna*⁶—the deep ancestral knowledge of ecology, livestock diversity, and social cohesion—under the repository of the Gadaa system, and reaffirmed pastoralism not only as a livelihood but as a political and ontological order.

Then, sixty years later, during the construction of a large road project between Modagashe and Isiolo, a sacred site to where pastoralists had returned, Yaq-Barsadi, was threatened by demolition to make way for the LAPSSET Corridor.

Adjacent to Yaq-Barsadi stands the pair of ancient pair of grove trees, estimated to be over 300 years old. The land on which these sacred trees stand has served as communal space where elders enact customary law, conduct spiritual rituals, and deliberate on matters of social and political life. The LAPSSET is now being constructed within 10 meters of these trees. If completed as planned, both the village and these irreplaceable cultural landmarks will be lost, severing critical links between landscape, law, and legacy.

The Borana refer to places like *Magado* (a crater with a salty spring water) adjacent to Yaq-Barsadi, and Kachiru villages a kilometer away from Yaq-Barsadi as more than mere geographical locations—these are landscapes imbued with memory, identity, and spiritual meaning. Such spaces hold deep historical and cultural significance since they have been the site of multiple historic meetings, decisions, and ceremonies, having served as sites for governance, ritual, and reconciliation. The image of elders gathering on horseback for

6 An interwoven concept and notion of fertility/reproduction (*finna*) and the cosmic order. *Finna* also constitutes the ethical principles and common code of practice, based on a deep respect for ecology (*cheera fokkoo*), where Borana traditionally coordinate their relationship with the environment around them in relation to their daily life and livelihoods (Arero, 2007).

meetings at these spaces symbolizes the enduring role of customary institutions and reflects the sacred relationship between land and Borana sociopolitical life (Hodgson, 2011).

What the LAPPSET corridor threatens is not simply territory, but also memory, heritage, and the moral scaffolding of community life. The newly under-construction LAPSSET road, markedly wide and more intrusive, cuts through critical dry season grazing reserves that sustain traditional herding systems. It severely disrupts pastoralists' seasonal mobility. Although local communities have actively proposed alternative alignments during rare consultations on the Modogashe road and LAPSSET, these participatory processes are frequently performative or often disregarded altogether. As one senior man in his 60s who is a resident of Duse village observed, "They ask us to speak, but the plan is already drawn. Our words are like dust behind their cars." This systemic exclusion from meaningful decision-making exemplifies a broader pattern of marginalization that continues to undermine pastoralist communities' agency over the future of their territories. When pastoralists voice their concerns—not with hostility but with rightful apprehension—they are frequently mischaracterized as "reactionary" or "anti-development." Yet, such resistance is not against progress itself, but against a form of development that is extractive, exclusionary, and dismissive of place-based knowledge and environmental stewardship (Lind, Sabates-Wheeler, & Kohnstamm, 2020).

The following section gives an account of the Yaq-Barsadi site and the threat it faced approximately four years ago during the expansion of the colonial-era corrugated Modogashe–Isiolo road on top of LAPSSET, which is about to arrive.

Social and Environmental Consequences:

The Yaq Grove Trees

In the arid landscapes of northern Kenya, the grove trees—locally known among the Borana as Yaq or tree grove—occupies a place of exceptional ecological and cultural significance. The grove trees thrive only in specific locations, or microhabitats, with one of the most prominent stands located in the Waso rangelands. Within this fragile and sparsely vegetated ecosystem, the towering baobabs serve as enduring ecological markers. Ecological studies suggest that the historical dispersal of these trees may be linked to elephant migratory corridors traversing Eastern Africa, potentially originating from as far afield as Tanzania. This association further elevates the baobab's status as both a botanical relic and a historical vestige of ancient ecological pathways (Chládová et al., 2019).

Within Borana cosmology and customary practice, the Yaq is revered as one of the largest and most enduring trees, symbolizing strength, continuity, and communal life. Historically, it has functioned as a central site for social gatherings, councils, and dispute resolution—a significance that persisted into the colonial era, during which British administrators routinely

held meetings with Borana elders beneath its expansive canopy of Yaq, at Yaq-Barsadi village. This colonial-era practice contributed to the naming of the surrounding settlement as “Yaq-Barsadi,” a toponym derived from the Swahili term *baraza*, denoting an assembly or council space. As Borana elders in their 70s, affirmed to me, while standing under the pair of the grove trees: *“We as Borana have specific respect and values for big trees, and the grove tree is among the biggest ones.”*

This underscores the grove’s enduring symbolic and ecological centrality. In general, the tree’s massive, water-storing trunk exemplifies resilience, retaining moisture through prolonged droughts, while its bark exhibits remarkable regenerative properties, quickly healing from injury. Seasonally, the tree sheds its leaves during the dry period, serving as an essential source of fodder for livestock—including goats, sheep, and camels—while minimizing water loss and releasing stored moisture only during periods of acute scarcity.

The grove’s prominence in this location was further apparent from the 1940s onward, following the construction of the Isiolo–Modogashe colonial road, which passes within a few hundred meters of the grove. Improved access to the site contributed to its transformation into an interethnic meeting ground frequented by Borana and neighboring pastoralist groups, including the Meru. Situated at the base of a prominent plateau, the trees occupy a strategically significant location historically recognized as both a pastoral convergence point and a cross-cultural frontier.

Beyond its utilitarian functions, this particular Yaq holds deep spiritual and ceremonial significance. It harbors three active beehives, historically carved into its trunk by local shepherds, transforming it into a living beehive that continues to yield honey. Prior to the community’s widespread conversion to Islam, the site also functioned as a sacred gathering space where prayers for peace, rainfall, and communal well-being were offered. As one elder in his 70s recalled, *“See, you can see there are three fixed stones where people used to make a fire to make tea and barbecue when a goat is slaughtered, which evokes living memories of communal feasts and rituals centered around the tree.”*

In recent decades, the baobab grove has emerged as a potent symbol of cultural resilience and environmental stewardship. When the Modogashe–Isiolo road construction started in 2017–2018 and threatened the grove’s survival, Borana elders mobilized to safeguard it, including petitioning in person the National Museums of Kenya to register the trees as tangible historical heritage. This advocacy led to the partial diversion of the road, sparing the trees—albeit temporarily.

Today, however, the community faces a more existential threat. The planned construction of the LAPSSET Corridor and the associated railway line from Lamu Port pose an imminent risk not only to Yaq-Barsadi village—including its schools, mosque, and dispensary—but also to

the treasured baobab grove itself. This looming crisis and vulnerability of the sacred grove illuminates broader tensions between state-led development initiatives and the imperative to protect pastoral rangelands, heritage sites, and the intricate human–nature relationships they sustain. Along the Modogashe–Isiolo road, large wire-fenced enclosures—some the size of soccer fields—are standard, some constructed during the fieldwork period and observed by the researcher. Often linked to local elites and politically connected individuals, these land grabbers are exploiting the legal ambiguity of trust land under county jurisdiction, as the full implementation of the CLA is still pending. With prior knowledge of the plans for road development, these actors are securing land at minimal compensation and acquiring titles through political patronage.

In light of the experience working to save the trees in 2017–18, which touched the entire population, the exclusion of local communities from consultation and participation in planning and decision-making processes emerges in the face of a much bigger project like LAPSET. The Waso Borana carry that collective memory with them when they confront the Kenyan authorities.

The conception of the road project originated within the central government of Kenya, driven by the pursuit of economic, political, and social objectives that primarily benefit the state. However, local communities directly affected by the infrastructure, such as the Waso Borana pastoralists, have received minimal consultation. Engagement with these communities typically occurs only after construction has already commenced. For the Waso Borana, the consultation phase holds critical importance, as it allows them to anticipate the road's trajectory and reorganize their grazing patterns, which are fundamental to their livelihoods. One Kina Ward resident in his early 50s observed:

They (government people) only talk to us because they're basically informing us that the road is passing through here, and this is a government project, and we have very little to say. If we strongly resist, we fear that things might go in the direction of *Daaba*? What they are telling us is that this is a high-level government agenda. Every time any inch of this road is done, it's always reported on the national TV. We can see that this road has nothing to do with supporting us. It is a lot to do to support the central government.

This account highlights the enduring trauma and tension rooted in historical experiences where the government has implemented major interventions to serve its interests, routinely excluding the voices of local populations. Such interventions have two primary detrimental effects on the affected communities.

First, local residents often feel compelled to accept these projects because they lack the power to resist them. As a result, they do not perceive themselves as stakeholders in the

development process. Only a few coerced or co-opted elites are included, leaving the broader community disengaged. Second, the local population receives minimal information about how these development projects are operationalized or the potential material benefits they could access if they were better organized. Consequently, they experience exclusion on multiple levels. Initially, they lose access to critical rangelands that sustain their livelihoods, including sacred sites like the *Yaq*. Even when they wish to participate in the development process, such as by settling along the proposed roadside, they lack the necessary information and financial resources to establish themselves along the roads that might yield economic gains; hence the exclusion persists.

Moreover, the land's legal status as trust land further exacerbates this marginalization. Individuals with capital and political influence can acquire and develop parcels of land along the road, often with little or no compensation, reaching the local pastoral communities to whom the land traditionally belongs.

When interviewed, Borana elders revealed that they are aware of the coming project but do not have "official" knowledge of it, not having been consulted. The following are the observations of a 65-year-old man, a resident of *Yaq-Barsadi* village, when he was asked directly what he knows about the LAPSSET project:

We've only heard about it but [officially] know very little. There are two projects: LAPSSET and HODP for the Isiolo–Madogashe road. Construction has begun and has passed Garissa, reaching Garba. We were never involved in it and know nothing about it. There were two meetings by the National Government, which I saw on TV, but the state house press media handled those meetings. Apart from that, we've had no information. The road construction has started, but we have been excluded from decision-making as the Borana community. I attended a meeting on January 25th, where we argued that the DCC said the Borana community is illiterate. The road covers 69 km in Meru and passes through Isiolo in a small portion called Kachiru and *Yaq-Barsadi*. Despite our educated community members, we are only given positions as truck drivers and casual laborers. Out of over 700 people in the camp, only 30 are Boranas, while 200 to 280 are from the Turkana and Meru communities. One construction project was forced to stop because the government claims the house needs to be demolished for the road, although we've lived here for generations. We're told the land belongs to the government, but compensation is supposed to come through social infrastructure projects like schools and vocational training centers, which haven't materialized. Our leaders have done nothing to ensure fair compensation.

This account reveals that the *Daaba* and the *Yaq* incidents have underscored the systematic marginalization experienced by this affected population. Government authorities and a

Chinese construction company bypassed meaningful consultations with affected populations, thereby sidelining local perspectives during both the planning and implementation phases. The process was characterized by a lack of transparency, with minimal public disclosure regarding critical decisions, project timelines in different lots, and contractor agreements. Moreover, the Waso Borana were largely denied employment opportunities during the construction phase, a dynamic that reinforced their sense of marginalization and deepened longstanding mistrust toward state-led development initiatives.

This exclusion will likely eventually undermine the legitimacy of the project from the Waso Borana perspectives. Meanwhile, it exemplifies a top-down development paradigm that has been widely critiqued in critical development studies (Whittaker, 2015). Another Waso Borana resident, in her 40s explained that infrastructure development, particularly road construction, has *"destroyed grazing areas and drought reserve centers, as well as trees, which are very important to us."* Such damage points to significant ecological degradation and the erosion of local communities' adaptive capacity, particularly in the face of increasing climate stress such as recurrent droughts. Expressions of distrust toward state institutions further illustrate the depth of community disillusionment emerged, as evidenced by the comments. The National Land Commission (NLC) disburses compensation funds to the county government, which assumes responsibility for their allocation. However, the county government rarely directs these funds toward compensating individuals whose land was appropriated for road construction. Instead, it frequently "talks" about reallocating of the resources to address community needs, such as constructing schools, building dispensaries, and digging boreholes. Consequently, individuals affected by land loss often receive no compensation, despite the original intent of the disbursement. One senior woman, chief of Baranbate village, explained that *"there would be no direct compensation, but a bank account would be opened with the county government."* This reflects widespread skepticism in the community regarding the implementation of promised benefits. This skepticism is rooted in a history of state neglect and perceptions of corruption. In addition, due to the incomplete implementation of the CLA, land in the Waso Borana remains classified as trust land under county jurisdiction. As such, the county government retains the authority to receive compensation on behalf of local wards or to oversee the proceedings by the NLC. However, these funds are typically managed at the county level and are rarely distributed directly to the communities most affected by infrastructure projects. Consequently, any development compensation is generalized to countywide benefits, with only negligible amounts reaching the impacted villages. The affected communities, therefore, view any county-mediated support as indirectly related to compensation for projects like LAPSSSET or the Modogashe–Isiolo road: compensation they do not expect to receive, despite bearing the brunt of these developments.

The voices from the herders and religious leaders paint a picture of the deep disruptions caused by infrastructure development in pastoralist areas. One of the most emotionally charged issues raised is the destruction of traditional burial sites due to road construction.

These sites, created through mobile pastoral traditions, carry profound spiritual and ancestral significance. The bulldozing of graves—especially of a revered figure like “Aab-Sharamo”—is not simply physical destruction but a rupture in the community’s moral and cultural order. For Waso Borana, Aab-Sharamo is well known as a knowledge holder from a very important clan of Borana; everyone has a high respect for him and his graveyard is also quite well known in these rangelands. It has gradually become a landmark, and now that landmark will be erased forever. The experience of systemic disrespect, pointing to a broader sense of institutional disregard for pastoralist values and history, remains visible through the physical destruction upsetting the community.

A recurring theme in the accounts of Borana elders is the lack of genuine consultation or consent, particularly regarding major infrastructure projects. One elder noted: “*We know nothing about it [LAPSSET] since we are neither informed nor consulted in any way.*” The researcher witnessed that there was no prior discussion with the community, indicating a violation of the principle of Free, Prior, and Informed Consent (FPIC), a right embedded in both international law and Kenya’s own legal frameworks. Interestingly, a rare exception was the Modogashe road project, where at least some level of engagement resulted in the building of a culvert to accommodate animal movement—symbolically named “Elephant Way.” This contrast underscores how rare meaningful participation is, and how token measures can carry outsized symbolic weight in contexts of systemic exclusion. Even the Elephant Way discussion excludes pastoralists, reflecting a deep bias in favor of the tourism industry over pastoralism, despite the crucial role of pastoralist mobility in accessing vital resources. A senior herder man, Borana in his 60s, said:

I reside in Kina Ward, close to Meru National Park, where elephants routinely migrate out of the park during the rainy season, because of too many flies and muddy terrain—often moving toward the nearby highway now under construction. LAPSSET people are aware of these seasonal movements and have proposed underpasses to accommodate elephants. Their interventions have largely overlooked the mobility and access needs of surrounding pastoralist communities. Even for elephants, the bridge will not be built.

The solution found for elephants could work well for livestock and people. Similar accommodation could be constructed through the ancestral lands of pastoralists to allow their movements, save their terrain, and allow vital water sources to remain intact.

The image below illustrates the railway line traversing Nairobi National Park. During the construction of this infrastructure project, by a Chinese firm, the Kenya Wildlife Service (KWS), a powerful state agency, intervened to protect wildlife and the tourism industry. As a result of this advocacy, the project planners and contractors were told to include an underpass to facilitate wildlife movement.



Nairobi National Park, underpass for Wildlife, for railway: Nairobi-Mombasa

In contrast, no such wildlife or livestock underpasses were constructed/planned in the Waso Borana rangelands, where the LAPSET Corridor and the Modogashe–Isiolo Road pass through pastoral territories, and the revered sacred pair of grove trees are about to be bulldozed. This omission is particularly significant given the frequent need for livestock to access crossroads in search of water and pasture, and it reflects a broader asymmetry in how infrastructural developments respond to different forms of mobility and livelihood.

There is growing anxiety about the threat the project poses to pastoral mobility—an essential strategy for managing environmental variability. Reduced access to grazing areas may adversely affect camels, which are particularly critical during drought periods. One participant in his 50s, in a focus group discussion setting in Kulamawe village, a few kilometers from Yaq-Barsadi, said in a worried tone:

The camels won't have a good place to graze- We travel longer distances each day with camels than with any other livestock. The road cuts through essential pasturelands, runs close to critical water points, and traverses seasonal salt licks favored by our camels. We have learned that the road will be wide and paved, allowing vehicles to travel at high speeds. Given that we are mobile, we must cross the road many times daily, the risk of livestock-vehicle collisions is unavoidable. We have also observed that the road design includes no bridges or underpasses, not even near key water points such as boreholes, where thousands of animals typically cross. This omission of underpasses raises serious concerns within the community regarding the safety of our camels and the broader implications for our livelihoods.

The current construction of roads will fragment rangelands, disrupt mobility patterns, and further marginalize pastoralist livelihoods that depend on spatial flexibility and seasonal movement unless specific remedies are proposed, agreed upon, and operationalized.

Participants in the study also exposed a particularly striking depth of botanical knowledge related to nutrients and medicine. Respondents differentiated tree species by ecozone and ecological functions. *"In Gamooji, you find Qonqom and Buruqe... In Badda, trees like Bathan and Dhadacha..., in Chari, Anthath and Qoote are more common"*. These are not random taxonomies; they are components of a relational ecology. *"Sabansa and Dhadacha... blossom when rain is near, and that triggers grass growth."* Such phenological cues function as *ecological clocks or indigenous early warning signs*, allowing communities to anticipate seasonal changes and make strategic preparations. This anticipatory mode of environmental sensing contrasts with external adaptation frameworks, which often prioritize reactive interventions. Borana ecological knowledge is proactive, empirical, and continuously refined through lived engagement with the land. Imposition of arbitrary criteria without consultation represents a violation of a finely tuned system. This economic system represents a complex model of natural resource management that necessitates a continuous ecological balance between factors exerting pressure on both livestock and human populations.

The ecological impacts likely to result from the current infrastructure plan are extensive and layered. The destruction of key species like the *Dhadach* [acacia] tree, critical for fodder, milk production, and traditional medicine, signals a loss that is not merely environmental but directly affects livelihoods and food systems. The disruption of camel habitats and natural water reservoirs compounds the vulnerability of dryland communities, whose survival strategies depend on mobility, biodiversity, and intimate ecological knowledge. These cumulative changes illustrate how roadbuilding, as currently carried out, catalyzes and paves the way for ecological degradation. The road building also erodes the adaptive capacities that pastoralists have cultivated over generations by compromising fodder species and restricting movement to locations where specific species thrive.

Despite these pressures, the resistance deepens. One senior man, 67 years old, and former chief of Sericho, fearlessly confronted the area - member of parliament (MP) about LAPSSET at a gathering of the Borana council of elders (BCE), declaring, *"We will stop them and inquire why they did not inform us,"* signaling a form of grassroots agency. The elder observed, *"You only need us when the election campaign comes, then you barely show up."* This statement underscores the perceived neglect by political elites, who are seen as engaging with pastoralist communities primarily during electoral periods and barely coming to the area otherwise. Such disengagement reflects a broader pattern in which state actors fail to address the sociopolitical and ecological issues they pledged to resolve during the campaign. In response, pastoralist communities continue to rely on their

customary strategies of resistance to forms of development that threaten their livelihoods and cultural integrity. This is not organized rebellion but a moral demand for recognition and a right to be consulted. Such expressions align with Scott's concept of "weapons of the weak"—everyday acts and discourses through which marginalized groups assert claims to justice, land, and dignity. The respondent's voice represents more than grievance; it embodies a form of local political consciousness shaped by historical memory, cultural values, and the insistence on being seen and heard amid top-down development schemes.



The tree grove during dry season.



The tree grove just after a short rainy season.



The Grove/Baobab Tree, during rainy season



Magado crater (salt crater)

The Seasonal Rangelands Under Threat

In the Waso Borana rangelands and among the Borana regions of northern Kenya, pastoralists divide grazing land into three categories based on seasonal suitability for livestock. These classifications help optimize pasture use throughout the year. The first category is *oomar*—a warm microclimate during the rainy season, characterized by salty plants, shrubs, and soft grasses that grow easily in the area. The *oomar* environment supports cattle, shoats, and camels, offering favorable conditions for milk production and animal health.



Oomar rangelands

The second category is *malbee'*—rangelands with denser bush cover that are important during the short rainy season. These areas include plateaus, gullies, and more vegetated plains. Though *malbee'* soil is dark and can be very muddy and slippery, especially during rains, the soil retains moisture better than red soil. Drought-resistant trees and shrubs thrive in these areas, and their leaves, pods, and bark provide crucial fodder for animals during the dry season. While *malbee'* provides essential grazing opportunities, it also poses challenges such as an increased presence of ticks and other parasites that can harm livestock. Proper rangeland management and preventive veterinary measures are particularly necessary to safeguard animal health in this environment (Farah, 1996; Roba, 2020). These practices of Borana pastoralists reflect the meticulous ecological and medicinal knowledge that helps communities remain resilient in arid and semi-arid lands.



Malbee' rangelands

The third category is *badda*, a relatively cold-region microclimate used only during extreme drought. These cooler, densely forested, sometimes swampy areas support vines, tall grasses, and tree leaves, making *badda* particularly suitable for camels. However, herders limit grazing to short periods due to the presence of parasites, including tsetse flies and pathogens like *Toxoplasma gondii*, which pose serious threats to both livestock and wildlife (Fratkin, 2001). The pastoralists' knowledge of medicinal plants and how to access them is important for managing the health of livestock and human populations.



Badda—Molitti traditional wells

Economic Consequences: The Painful Process of Compensation

The uncertainty surrounding compensation and development benefits emerges clearly in the case of the village of Yaq-Barsadi. Residents face displacement due to the planned construction of a major railway station yet promises of future infrastructure or services remain vague and conditional. There is mention of photographic documentation by the surveyors of the Modogashe-Isiolo/LAPSSET and the NLC team—possibly as a substitute for real inclusion or accountability—which further highlights the extractive nature of the process. Compensation, when offered, appears speculative and detached from the community's own priorities or timelines, reinforcing a pattern of imposed development rather than participatory change.

Delays in compensation for demolished structures have further exacerbated community frustration. As one respondent in her 40s, resident of Kulamawe village noted *"people are now tired of the empty promises that were never fulfilled because it's been seven years, and the compensation has not been made."* Compensation packages exclude land—which is considered communal—and are based on outdated 2017 valuations that fail to reflect inflation or the rising construction costs. This has generated widespread dissatisfaction and eroded public trust in state institutions, particularly the NLC, which is frequently accused of mismanaging compensation funds. The exclusion of communal land from compensation is consistent with broader patterns of dispossession faced by pastoralist communities, who often lack formal title deeds despite customary claims to land—a condition that renders them particularly vulnerable in the face of large-scale infrastructure projects (Wily, 2011).

This erosion of trust has implications that extend beyond compensation; it also affects the broader perception of state-led development. Although the road project is officially promoted as a driver of economic growth, it is also perceived as a source of precarity, particularly for pastoralist mobility and livestock security. The anticipated benefits of development, including improved trade, connectivity, and opportunities for social integration (e.g., intermarriage), are seen as conditional and long-term, whereas the associated risks—land dispossession, animal theft, and ecological degradation—are immediate and tangible.

At one of the focus groups discussions, conducted in Yaq-Barsadi village, one of the community members in his early 50s said, *"We fear they will grab our land without compensating us...we haven't been told where to relocate to. It's up to us to find a new place."* Such accounts illustrate how development is perceived not as inclusion but as dispossession—a form of spatial violence that deepens marginalization. Perceptions of political exclusion and inequitable development also pervade the discourse. A group discussion outcome contrasts the infrastructural neglect of Borana areas with the relative state investment in Meru and Samburu County. The absence of a dedicated Borana County, inadequate access to security and services, and discriminatory land governance

systems are cited as indicators of longstanding marginalization. This is reflected in a quote from the senior elder who has worked in the NGO sector for over three decades, and who lost his mother in the *Daaba*: *"This is the second form of unfairness, redressing and intimidation... even though we are the majority here since 1940."* (The first *Daaba* he refers to is the Shifta War).

Such grievances reflect a broader narrative of exclusion from the Kenyan political mainstream, tied to a legacy of resistance that spans colonial and postcolonial periods. Security remains a persistent concern, particularly in relation to conflict with Samburu raiders. One of the community members, in his late 60s, emphasizes the Borana reliance on community-based protection mechanisms and contrasts their self-sufficiency with what they perceive as Meru dependence on state security: *"We often clash with them because they are cattle raiders, and they kill our herders"* said senior Yaq-Barsadi village resident in his 50s. This dichotomy reinforces a moral economy centered on resilience, sacrifice, and collective autonomy. His statement reflects ongoing tensions rooted in resource-based conflict and violence. The informant contrasts these experiences with what is perceived as differential treatment by the state, noting that, unlike the Borana and the Samburu, the Meru community appears to receive more consistent and favorable government support.

Compensation regimes further illustrate an epistemological disconnect between state-led development rationalities and pastoralist ontologies. Bureaucratic frameworks fail to recognize communal land as a compensable asset, for example, reflecting a deeper inability to value land's social, cultural, and spiritual significance within pastoral life. This misalignment typifies neoliberal development paradigms that privilege economic quantification over relational and ecological embeddedness.

One young woman, who served as a community liaison on the Modogashe–Isiolo road project, noted that *"Boji, Yaq-Barsadi, and Kulamawe youth protested twice at the end of 2023. Kulamawe were seriously blocking the road, and finally, the area parliament member came."* A graduate in Political Science and International Relations, she explained that the protests emerged in response to the exclusion of local youth from daily labor opportunities on the construction site. Following the road blockade, the area Member of Parliament visited the site to address the unrest and temporarily resume the halted construction. During the visit, the MP recorded the names of several youths, promising employment. However, only a few were eventually hired, while the remainder were placed on a waiting list. As of the interview, those on the waiting list had yet to be called. Promises of labor inclusion, meanwhile, constitute a mirage of empowerment. While low-skilled employment offers marginal economic relief, it also entrenches exclusion from meaningful participation in decision-making and skilled work. These dynamics foster internal stratification and disillusionment, with protests eliciting only symbolic concessions rather than substantive reform.

Conclusion and Recommendations: Persistent Pastoralism

Infrastructural interventions such as large-scale road construction produce decisive outcomes. But the winners and losers experience these at vastly different scales. Winners like local elites have been equipped with decisive information about such development. Politicians use such actors to penetrate the community, weakening social cohesion, while the government continues to push its agenda in a tangible manner. While symbolizing connectivity and progress, they simultaneously fragment grazing territories, gradually alter existing land use patterns, and attract external interests. This spatial reordering challenges the mobility central to pastoral livelihoods and reveals the disjuncture between developmental imaginaries and pastoralist realities and practicalities. Repeated cycles of protest and bureaucratic neglect have led to a sense of political exhaustion among the pastoralists. As engagement yields diminishing returns, while communities shift from active resistance to resignation, not from resolution of grievances but from disillusionment with institutional responsiveness. Nonetheless, pastoralist resilience persists. Core practices such as mobility and livestock rearing endure despite intensified threats. While development interventions have not yet dismantled these lifeways, they exert cumulative pressures—through land appropriation, environmental degradation, and insecure compensation—that incrementally erode the foundations of pastoral existence.

Pastoralist resilience and adaptive capacity stem from their deep ecological knowledge and nuanced understanding of livestock diversity. They integrate their comprehension of local ecologies with the specific needs and characteristics of the animals they raise, drawing upon generations of accumulated knowledge and shared experience. This sophisticated ecological literacy enables Waso Borana pastoralists to anticipate and respond to environmental variability, ensuring livestock survival under extreme climatic conditions. Their expertise reflects a long-standing trust in the adaptive potential of their herds, grounded in indigenous knowledge systems and centuries of practical engagement with the rangelands.

In contrast, state-led development agendas—often backed by capitalist imperatives—prioritize ecological extraction. Infrastructure such as roads, along with access to energy and advanced technologies, facilitates the exploitation of rare minerals and other natural resources. Roads, in particular, reduce travel time between mineral extraction sites and processing or export destinations, thereby accelerating the commodification of remote

ecologies. These infrastructural developments serve as strategic tools that enable the state and its partners to penetrate pastoralist territories that were previously inaccessible to them while rendering pastoralism as a way of life more legible and also more exploitable, partly by encouraging sedentarization.

Despite the limits of private investment in such regions—often due to ecological, financial, or logistical constraints—states like Kenya continue to envision the transformation of pastoral rangelands into sites of sedentary agricultural production. Rather than supporting pastoralism as a viable and ecologically attuned livelihood system, state policies employed during the research period tended to marginalize herding practices. This vision of agricultural production on what is currently pastoralist land persists even though these rangelands are predominantly drylands, characterized by fragile ecologies and soils unsuited for conventional agriculture. The costs of agricultural production in these environments far exceed those in more fertile highland areas, primarily due to the scarcity of water—an essential element for any large-scale farming initiative.

In the case studied here, the Kenyan state promotes road connectivity as a central component of its national development agenda. However, in advancing this vision, it frequently marginalizes local perspectives—like that of the Waso Borana—by excluding them from meaningful participation in the planning and alignment of infrastructure projects. Bureaucratic opacity and entrenched practices of corruption further silence these voices. Instead of engaging communities on the potential impacts of such developments, the state presents its agenda as fixed and non-negotiable, expecting the Waso Borana to acquiesce despite the risks posed to ecologically critical rangelands that sustain their pastoral livelihoods.

Establishing viable agricultural schemes in such arid zones demands significant investment in both water infrastructure and appropriate technologies capable of ensuring sustainable water use. Moreover, it requires substantial research and development to determine suitable crops and cultivation methods that align with the local ecological conditions. In light of these challenges, completely abandoning pastoralism—a system that has proven adaptive and sustainable over generations—appears both economically irrational and environmentally detrimental.

Pastoralist community members have indicated a willingness to engage constructively, proposing alternative alignments—such as rerouting roads to avoid sensitive ecological zones and to protect settlements like Yaq-Barsadi from erasure. These alternatives would have enabled infrastructure development without the wholesale destruction of entire communities. To foster a more equitable and sustainable relationship with the Waso Borana, the state must prioritize inclusive and participatory planning processes. It should also provide compensation for the estimated 55 square kilometers of communal rangeland projected to be lost to the LAPSET project.

Moreover, preserving the physical and cultural integrity of villages and sacred groves is essential, as their destruction would displace communities and sever ties to collective memory, moral values, and spiritual traditions. Integrating infrastructural features such as underpasses or overpasses at key ecological and pastoral mobility corridors—particularly along the Modogashe and LAPSSET roads—would facilitate livestock movement and uphold the viability of pastoral livelihoods. Such measures are necessary to align development with the values, needs, and rights of the affected community.

The systematic marginalization of pastoralism through means examined here—the encroachment on rangelands via road construction, the denial of compensation for flora lost to national development projects, the persistent delay in implementing the CLA, and the lack of meaningful investment in pastoralist livelihoods—risks triggering political unrest once these cumulative grievances reach a tipping point. It is critical to note that the Northern Kenyan Pastoralist Alliance is gradually gaining momentum and possesses the potential to mobilize and articulate a form of resistance. This resistance may emerge not only in opposition to exclusionary development practices but also as a demand for recognition and equitable treatment within the national framework—on par with the rights and livelihoods enjoyed by other citizens.

This study found that drawing and enforcing of arbitrary lines impede or block access to critical lands, disrupt and undermine this balance in ways that are destructive, incur great loss to the people, and harm the environment, but, with adjustments to the planning approach, could be avoided.

Although infrastructural projects in the region are beyond the scope of this study, northern Kenya is home to a range of other development projects in addition to roads, including renewable energy (e.g., wind power), non-renewable energy (e.g., oil exploration), and mega infrastructure development. This study's recommendations for more consultative road construction apply equally to many other types of development.

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