

Closing the Gap: The Politics of Property Rights in Kenya*

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Abstract

Politicians and scholars alike have advocated for land reform as a tool to address political instability and poverty. Yet in many cases of land reform, governments provision land but withhold property rights. Why do leaders withhold these rights and when do they grant previously withheld rights? We argue that land rights are often an irreversible distributive good that leaders relinquish conservatively and selectively in order to build popular support. Using micro-level data from Kenya – where successive governments have distributed nearly 10% of the country’s arable land – we find that leaders under democratic regimes are more willing to formalize rights than those under autocratic regimes. Further, the logic of land formalization changes with regime type. Whereas autocrats prioritize land formalization among core supporters, elites facing elections prioritize pivotal swing voters. The article demonstrates how the provision of property rights is primarily a function of political calculations rather than state capacity.

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1 Introduction

Over the last century, a third of all countries have embarked on large-scale land reforms efforts (Albertus, 2015). Leaders and scholars alike have advocated for such reforms as a way to address inequality and rural poverty, or quell potential unrest (Huntington, 1968; Lipton, 2009; Kapstein, 2017). What many observers overlook, however, is that while these reforms have re-distributed landholdings, they have often failed to provide accompanying rights to land (de Janvry, Gonzalez-Navarro and Sadoulet, 2014). This creates what Albertus (2021) has termed a “property right gap.” That is, property rights are incomplete because beneficiaries lack the “full rights to extract, manage, transfer, and alienate [land]” (Ostrom, 1990). These gaps in property rights, moreover, are hardly unique. Albertus (2021) estimates that close to two billion people farm land to which they have no formal rights.¹ Indeed, from Afghanistan (Murtazashvili and Murtazashvili, 2016) to Zimbabwe (Boone and Kriger, 2010), governments have embarked on large-scale land redistribution programs. But rarely, and often only much later, have they delivered property rights.

This gap points to an important puzzle in the study of distributive politics: If complete property rights improve efficient land use and economic growth (Feder and Feeny, 1991; Goldstein and Udry, 2008), why would leaders withhold such rights? More so, under what conditions would leaders who withheld such rights decide to grant them?

Examining the politics of land rights is important, not only because it tells us something about distributive politics, but because the process through which the state provisions and protects property rights is foundational to political order, democratization, and the state-building project (Boone, 2014). State decisions about who receives formal tenure rights can serve as tool of demographic engineering, settling certain ethnic or racial communities while rendering others landless (Frymer, 2014). Such policies can also provide leaders with a tool of political consolidation and control, by allocating land rights to loyal constituents, while revoking rights from opponents. Similarly,

¹Specifically, Albertus (2021, 261) specifies that 37/44 land redistribution programs leave land users with a partial or complete gap in property rights.

state actors can empower or weaken a landed elite by withholding or assigning tenure rights to smallholder farmers (Albertus, 2015). Decisions to allocate land rights are ultimately decisions about who can accumulate wealth, and who can enjoy full citizenship rights (Lund, 2016).

Our starting assumption, then, is that formal rights to land are rarely a function of market forces alone, but instead, political calculations. The question then, is how state actors make decisions about when to relinquish rights to land, and which individuals or communities will acquire such rights. Scholarship on distributive politics and land rights offer three potential explanations.

First, gaps in the supply of land rights may be a function of weak state capacity. By this account, leaders provision tenure rights – thereby closing the property rights gap – only when and where they have the administrative capacity to do so (Joireman, 2007; Toulmin, 2008). Second, regime type may shape the incentives and capacity of political leaders to formalize rights: authoritarian regimes will tend to withhold land rights as a means of establishing and maintaining control over supporters (Albertus, Fenner and Slater, 2018; Albertus, 2021), while democratic leaders are more likely to close the property rights gap as a way of building electoral support. A third, and related line of research emphasizes the clientelist nature of land rights; that like other goods, leaders will distribute land with different features to different groups (Diaz-Cayeros, Estévez and Magaloni, 2016). These studies emphasize the ways that elites have used land to build and maintain political support, notably, by providing land rights to supporters and revoking land from opponents.

While these theories help account for broad, cross-national patterns in land formalization, they are less useful in explaining important sub-national variation. We build on past research to examine land formalization both across and, especially, within autocratic and competitive multi-party electoral (democratic) regimes.² Doing so provides insight into how leaders weigh the political costs and benefits of land formalization in different environments, and how these elite logics affect

²Our theory hinges on the presence of competitive multi-party elections. We recognize that not all regimes that hold such contests are consolidated democracies (Levitsky and Way, 2010). However we overlook the quality of elections and focus on their presence because elections fundamentally alter the types of political threats that leaders face, and how we expect leaders to respond. For ease of readability, we use democratic and electoral regimes interchangeably.

prospects for land formalization among different allottees. Notably, whereas Albertus' landmark study (2021) focuses on when governments create and close property rights for rural dwellers, we ask the additional question: among rural dwellers, whose rights will the state prioritize?

Our predictions rely on two observations about land rights across much of the world. First, we build on the observation by Catherine Boone (2014) that land rights constitute a political relationship between citizens making claims to land, and the state, which has the power to allocate, enforce, and revoke rights from citizens (Klaus, 2020a). Where citizens lack secure tenure rights, they remain dependent on leaders to provide provisional security, creating a clientelistic relationship that "enmeshes" land users (i.e., clients) to patrons (Boone, 2014; de Janvry, Gonzalez-Navarro and Sadoulet, 2014; Albertus, Fenner and Slater, 2018; Larreguy, Marshall and Trucco, 2018).

Second, the distribution of land rights tends to be a one-shot and irreversible exchange: once the state assigns rights, they are difficult to revoke. This is in contrast to revocable goods that typify clientelist exchanges such as public sector jobs, electricity, fertilizer subsidies, or land without full rights. As Hicken and Nathan (2020) observe, revocable goods make clientelist exchanges self-enforcing: voters support the candidate in order to maintain benefits they might otherwise lose. Yet because rights to land are difficult to revoke, their provision is all the more puzzling.³

Taken together, leaders are inclined to maintain weak or informal property rights so as to maintain clientelistic ties (Boone, 2014; de Janvry, Gonzalez-Navarro and Sadoulet, 2014). And since land formalization is often irrevocable, leaders relinquish rights strategically, provisioning them conservatively and selectively.⁴ Importantly, while the distribution of rights may temporarily boost a leader's support among recipients, he cedes a key tool by which to coerce support in the future.

We argue that leaders formalize land rights – thereby closing the property rights gap – only

³An important caveat is that even when land users hold formal rights to land, state actors may use violence and coercion to expropriate or forcibly remove people from their land, especially in non-democratic contexts. Nonetheless, while revoking formal rights is possible, the costs of doing so make land rights categorically distinct from goods that are more easily withheld or withdrawn.

⁴Even in contexts where land rights are reversible (i.e., through coercion), the allocation of rights makes their forfeiture by leaders or the state more difficult in the future.

when the short-term political benefits of doing so outweigh the long-run costs of breaking patron-client bonds. Two key factors influence this calculation, helping to explain the context in which land formalization is most likely. The first factor is regime type. Autocratic leaders have strong incentives to withhold land rights in order to maintain patronage networks with clients. Democratic leaders, by contrast, are more likely to use land formalization to solidify electoral support, prioritizing their short-run political survival over maintaining a loyal support based in the longer-run. Therefore, we expect higher overall rates of land formalization in electoral than autocratic regimes.

We also expect regime type to affect the types of allottees that leaders prioritize, based on how pivotal a group is to political survival. When autocrats formalize land, they are likely to prioritize core supporters whose support is often sufficient for regime stability. Under electoral regimes, however, leaders facing competitive elections must expand their support beyond core voters to maintain power. Hence, leaders facing competitive elections will prioritize the land rights of swing voters, distributing a durable good that they cannot easily renege on in the future (Albertus, 2013).

We evaluate these arguments by examining land formalization across Kenyan settlement schemes: state-controlled land sub-divided into individual parcels, primarily for smallholder farming. These schemes cover 1.2 million hectares of land, totaling nearly 8% of Kenya's arable land (Dyzenhaus, 2021). Since Kenya's colonial rule under the British, the central state has played a significant role in the allocation of land rights, enabling political leaders to allocate land rights to build support, while withholding or revoking land rights from opponents (Onoma, 2009; Boone, 2014). Kenya thus provides an important case to examine the process and patterns of land formalization within a highly centralized system where land has long-served as a powerful patronage good.

We combine micro-level data on settlement schemes with localized census data and election results to create a time-series dataset of when and where the state formalizes land. Our findings align with our main expectations: that electoral regimes are more likely to formalize rights than authoritarian regimes, and that whereas autocrats prioritize co-ethnics, considered the most loyal supporters of each president, leaders under electoral regimes prioritize swing voters.

Several additional analyses lend support to our broader theoretical framework about land as an important clientelistic good. Kenyan leaders have used land registration to build short-term support during moments of political uncertainty and short time horizons. In these moments, leaders were most willing to relinquish long-term clientelistic control for short-term political gain. Other analyses rule out alternative explanations, including the role of state capacity.

This paper makes three main contributions. First, we contribute to literature on the politicization of state capacity. By treating property rights as a distributive good, we highlight leaders' political incentives to strategically limit or undermine state capacity (Holland, 2017; Suryanarayan, 2019). Leaders may be unwilling to allow the state to operate at its potential capacity if doing so undermines their ability to maintain political control (Onoma, 2009; Hassan, 2020). Evaluations of state capacity must therefore consider the political factors that affect leaders' incentives to increase or decrease capacity in a particular area.

Second, we situate the distribution of land rights in a broader debate about distributive goods. Specifically, the irrevocability of land rights makes this resource comparable to durable goods such as tenured civil service jobs (Hassan, 2020; Brierley, 2020), the construction of infrastructure projects (Burgess et al., 2015), and the creation of new administrative units (Gottlieb et al., 2019). More broadly, our findings lend support to research demonstrating that leaders distribute bundles of goods, playing a mixed strategy meant to entice both core and swing voters (Kramon and Posner, 2013; Diaz-Cayeros, Estévez and Magaloni, 2016). Yet land rights also have many unique features. Notably, they carry significant symbolic importance. Beyond material livelihood, land rights connote belonging and identity. And more than many other distributive goods, such as new roads or job creation, the distribution of land rights confers political power and status, elevating the claims of recipients above others. In this regard, we aim to demonstrate the ways that the allocation of land rights is both illustrative of a broader dynamic of distributive politics, and equally, how land rights represent a unique type of distributive good; one that warrants particular focus because struggles over land powerfully shape national political discourse and claim-making

across much of the world.

Third, our focus on variation across regime type contributes to research showing that electoral regimes are more responsive to the needs of their citizens than autocratic regimes. Many studies find that elites facing competitive elections are likely to distribute goods and services more widely and equitably than their authoritarian counterparts (Buono de Mesquita et al., 2003). We build on this work to show that the recipients of state resources, including in the agricultural sector, change alongside regime type. Autocrats still face incentives to provide some resources to citizens, but prioritize different groups than elected leaders (Bates, 1981; Kasara, 2007; Thomson, 2019).

2 A Theory of Land Rights Formalization

This paper examines the conditions under which a state moves to formalize land, facilitating the closure of the property rights gap.⁵ We begin by addressing the limitations of state capacity arguments that we've outlined above and then detail our theory of land formalization, specifying the conditions under which state elites are most likely to extend rights to land users.

We focus on land formalization in contexts where the state has allocated land to free-holder farmers within a larger agricultural space (e.g., an administrative region or former plantation) without providing allottees with full, alienable property rights to their individual parcel within that larger space. In these contexts, the state retains property rights over this land. The broader universe of cases includes areas where the state grants or allocates rights to individual land users. This type of arrangement is ubiquitous but varied, including highly centralized land settlement programs such as *Imidugudu* in contemporary Rwanda, *Ujamaa* in Tanzania under Julius Nyerere, or agricultural settlement schemes in Sri Lanka. Another version exists, or once existed, in settler colonies such as the United States, Australia, or Israel, which used land policy to control and

⁵We use the terms “registration” and “formalization” interchangeably to refer to the process through which the state codifies land rights (Putzel et al., 2015). We recognize that the registration/formalization of land may not result in property rights that are societally legitimate or effectively enforced.

engineer settlement patterns.

Indeed, state capacity may shape the opening and subsequent closing of a property rights gap. Before citizens can obtain title for their land, the state must carry out numerous bureaucratic tasks such as delineating property boundaries, creating cadastrals and land registers, and adjudicating boundary disputes. These tasks require capacity across different arms of the state, capacity that many African countries lack (Joireman, 2007; Toulmin, 2008; D’Arcy and Nistotskyaya, 2017). Further, and among African countries in particular, the state may not have the capacity to “disrupt” the strength of customary institutions that are considered custodians over land (Herbst, 2000).

Recent literature, however, suggests that state capacity is often a political choice: that even relatively weak states can effectively perform core governance tasks if leaders benefit from doing so. In contexts of relatively weak capacity, for example, leaders can change bureaucratic management practices to improve or deliberately decrease government effectiveness (Hassan, 2020) or choose not to enforce certain rules or regulations (Holland, 2017). Leaders may thus keep property rights institutions weak and dysfunctional where they perceive incentives to do so (Onoma, 2009). In this way, while a state’s capacity may give us a ceiling as to what the state can accomplish (Williams, 2020), we must account for variation in leaders’ decisions to extend state capacity in some domains but not others. Indeed, Albertus (2021) argues that a state that has the capacity to expropriate and allocate land also has the capacity to dole out the associated property rights. In sum, while we expect state capacity to play a role in the closing of the property rights gap, it cannot fully account for the decisions of political actors.

2.1 The Role of Regime Type and Partisanship

We argue that elite decisions to allocate land hinge on two factors: 1) whether the regime is autocratic or democratic, and 2) whether land users are ethnic or political partisans. We start with two assumptions. First, autocrats need less popular support than their elected counterparts. Instead, autocrats’ main survival imperative is to maintain some level of popular support and legitimacy that

minimizes the risk of unrest or rebellion both from the public and from rival elites. Second, leaders facing elections have shorter time horizons than autocrats. A continuous cycle of competitive elections means that leaders' political survival only goes as far as the next election.

With these assumption in mind, we expect that a property rights gap is more likely to emerge and endure under autocratic regimes compared to more democratic regimes. As noted, autocrats often distribute resources that enmesh recipients in relationships of dependence (Albertus, Fenner and Slater, 2018). Distributing land without rights leaves allottees without formal land security, all but ensuring their dependence on political leaders for tenure security. The implication, then, is that land users will remain loyal to autocratic leaders, if only to maintain their access to land.

We expect this logic to change under democratic regimes. For one reason, land reform, with or without rights, is a highly contentious and disruptive process, creating new winners and losers (Boone et al., 2020). This means that it will be more difficult for democratic leaders to push through highly disruptive or coercive land reform policies, both because they face electoral consequences, but also because there are a greater number of veto players who can stall land reform (Boone et al., 2019). More importantly, we argue, is that even while most leaders would prefer a land insecure peasantry to maintain clientelistic bonds, leaders facing competitive elections often prioritize short-term electoral gains over long-term political control. Formalizing land rights can provide one (among many) useful tools to consolidate electoral support. In particular, even when incumbents have other campaign tools at their disposal, being able to promise land rights (e.g., land registration) is a powerful appeal, especially in contexts where rights to land animate national and party politics. Hence, compared to autocratic regimes, we expect the property rights gap under democratic regime is more likely to close. We specify this prediction as follows:

Hypothesis 1: The property rights gap is less likely to close in autocratic regimes compared to democratic regimes.

Our second set of predictions concern whose land the state is most likely to formalize. With respect to autocracies, we expect that in the few instances where autocrats do assign tenure rights, it

will be among their core supporters. This is partly because it is cheaper for an autocrat to maintain support among a core group rather than win over new supporters. Having a large base of core supporters also mitigates threats from rival elites or the broader public.

Though outside the scope of our theory and empirics, the ease with which autocrats maintain core support is often due to the higher level of resources that this group receives relative to other groups. Across much of Africa, for instance, a leader tends to draw his core support from co-ethnics. These co-ethnics often benefit from higher levels of social services, infrastructure, and state jobs (Burgess et al., 2015; Kramon and Posner, 2016; Brierley, 2020). Importantly, this skewed distribution of resources means that these supporters may remain in a clientelistic relationship with the autocrat even after obtaining land rights. That is, while distributing tenure rights to core supporters may weaken patron-client bonds, autocrats can rely on other strategies of targeted distribution, such as subsidized farm inputs (Bates, 1989) or agricultural taxes Kasara (2007) that continue to enmesh farmers in relationships of dependence even after formal land registration.

Under democratic regimes, by contrast, we expect a leader to prioritize the land rights of swing voters. This is partly because elected leaders can rarely rely on core voters alone, and must rely on strategies to win over swing voters. Further, as Stokes (2005) observes, core voters cannot credibly threaten to vote for an opposing party, so parties may choose to focus their resources on swing voters. This pivotal status gives swing voters leverage to demand valuable and more durable distributive goods, including land formalization Albertus (2013). Hence, leaders should be inclined to respond to such demands under electoral regimes, both as a way to counter opponent's promises to formalize land, and to signal the credibility of their commitment to swing voters.

We note that formalizing the land rights of swing voters does not guarantee their electoral support. Indeed, allocating rights breaks the patron-client bond between leader and voter, weakening the leader's ability to coerce support. Yet in contexts of competitive elections and unmonitored clientelism, leaders may nonetheless gamble on swing voters, trading long-run political control for potential short-run electoral benefits, even if they cannot ensure the support of these voters (Diaz-

Cayeros, Estévez and Magaloni, 2016; Hicken and Nathan, 2020).⁶ We specify these predictions as the following hypotheses:

Hypothesis 2: Under autocratic regimes, core supporters are more likely to benefit from land rights formalization compared to swing or non-core supporters.

Hypothesis 3: Under democratic regimes, swing voters are more likely to benefit from land rights formalization compared to core voters.

Overall, residents living under democratic regimes should be more likely to benefit from land formalization than residents living under autocracies. Within autocratic regimes, core supporters are more likely to benefit from land registration whereas under democratic regimes, swing voters (i.e. non-core supporters) are the more likely beneficiaries.

3 The Kenyan Case

3.1 Settlement Schemes and Demand for Formal Land Rights

Land has occupied a central role in Kenyan politics since it became a settler colony under the British. During colonization, the colonial state allocated large tracts of Kenya’s most fertile lands to European settlers. By the 1950s, grievances over land among indigenous Kenyans culminated in the *Mau Mau* uprising, pitting insurgents fighting for “land and freedom” against the colonial state and (indigenous Kenyan) loyalists. The war helped bring about the end of colonial rule, and the departure of many European settlers, while placing land at the center of national politics.

As a way to address chronic landlessness – and the instability that such landlessness provoked – the newly independent Kenyan government purchased large tracts of the country’s most arable land from departing Europeans with the aim of resettling Kenyans displaced by settler rule. We focus our analysis on settlement schemes, one of the main features of this resettlement program.

⁶See Kramon (2017) for evidence of this in Kenya.

Settlement schemes are large tracts of land that the state purchases from landowners and subdivides into plots for farming or residential purposes. The state created many of the early schemes from land sold by departing European settlers. The state continues to purchase large farms from wealthy landowners, while also excising formerly protected public lands to create new schemes (Government of Kenya, 2004; Morjaria, 2018). As of 2013, successive Kenyan governments have settled approximately 279,000 households across 494 settlement schemes, encompassing 1.2 million hectares of land.

Importantly, the allocation (or “allotment”) of an individual parcel within a given settlement scheme to a free-holder farmer does not entail full and secure property rights (e.g., a title deed). Instead, allottees sign and receive an “occupation license” that acknowledges that they were granted the land by the government as seen in Figure 1. But as Figure 1 shows, these documents do not give allottees formal ownership, and therefore, do not allow allottees to easily sell, transfer, or borrow against their parcel. Indeed, occupation licenses lay out a number of conditions that, if violated, allows the government to repossess the parcel. In this way, allocation of land on a scheme without the scheme’s registration simultaneously entraps allottees in a dependent relationship with the state. In the absence of a title deed, settlement scheme parcels remain as government land, allowing the state to act in the capacity of de facto landlord to allottees (Boone, 2014).

It is only after the central government *registers* a scheme that allottees within that scheme can begin the process of applying for a title deed, and thus, alienable rights to their parcel. At first glance, scheme registration seems to be a straightforward bureaucratic exercise that signals the state’s ability and willingness to administer the area. For a scheme to be registered, the state must survey the land, demarcate individual plots, construct local public goods (e.g., roads, water points) for residents, and clear public spaces. Once a scheme is registered, any free-holder farmer within that particular scheme who has paid off outstanding loans and fees on her land can apply for a title deed for her individual plot.

While research in other contexts shows variable demand for secure land rights (Lawry et al.,

REPUBLIC OF KENYA
OCCUPATION LICENCE
LAKE KENYATTA SETTLEMENT SCHEME

This is to certify that MR/MRS.....
has got permission to occupy the piece of land containing

.....10.....ACRES..... or thereabouts shown as Plot No.
on a map of L.R. No..... filed in the Office of the.....

DISTRICT COMMISSIONER, L A M U

..... for the period of nine months from the..... day of.....

1973..... and thereafter until determined as hereinafter provided.
.....2. The Licensee shall pay an annual fee of Sh..... per annum on
the..... day of.....

3. This licence may be determined at any time after the expiration
of nine months by either party giving to the other three calendar months'
previous notice in writing.

4. The licensee shall reside permanently on the land.
5. The Licensee shall maintain all boundary hedges at all times and
fill in any gaps which may occur immediately with plants or trees similar to
those already used for the purposes.

6. The Licensee shall maintain the building on the land at all times
to the satisfaction of the Health Authority.

7. The licensee shall carry out the requirements of the development
plan handed to him at the time of occupation and shall at all times ensure
that crops are kept well weeded and free of pests and diseases.

8. The Licensee shall comply with and conform to all rules made under
the Local Government Regulations 1963, or under section 48 of the Agriculture
Act (Cap.313).

9. The Licensee shall not sell, transfer, sublet or charge the land or
any part thereof, except with my prior consent in writing.

10. The Licensee shall erect not more than one private dwelling and
related ancillary premises on the land and shall not permit residence therein
other than to members of own immediate family. his

11. The Licensee shall comply with such rules for the Agricultural
development of the land as may be laid down by me and any person authorized
on my behalf.

12. The Licensee shall pay such rates, taxes, charges, duties,
assessments or outgoings of whatever description as may be imposed, charged
or assessed by any Government or Local Authority upon the land or the
building erected thereon including any contribution or other sum paid
by the Government in lieu thereof.

13. The Licensee shall maintain the land in a clean and tidy condition
and in such condition deliver it up at the determination of the licence.

14. If the Licensee commits any breach of the conditions of this
licence it shall thereupon cease and determine and any officer authorized
by me may re-enter upon the land or any part thereof in the name of the whole.

Dated this..... 29th day of..... SEPTEMBER 19..... 73.....

.....
DISTRICT COMMISSIONER, LAMU DISTRICT.

CHAIRMAN:

ALLOCATION COMMITTEE.

Figure 1: Occupation license for parcel in Lake Kenyatta Settlement Scheme. Folio ADL/9/6 Coast Provincial Archives, Mombasa Kenya.

2016), our qualitative evidence illustrates the strong demand for secure land rights among allottees within Kenyan settlement schemes. A resident of a scheme in Nakuru District, for example, emphasizes the protection that a title deed provides her: “When I am in possession of my title I feel safe because the title deed has my name on it and so no one can dare interfere with it.”⁷ Archival evidence similarly points to persistent requests for scheme registration and land titling by residents on allotted, but not yet registered, schemes. For example, consider a 1975 request from settlement scheme residents of Bellevue Settlement Scheme in Nyeri District to their District Settlement Officer, some six years after they were initially allocated parcels: “Your honor, from 9th/10/1969 is the time you allocated us these plots, and now we have been here for six years . . . we ask you very much kindly to assist us . . . and see to it that we have the Title Deeds, for if we have them it could be easy for us to have loans which will enable us to develop.”⁸ In another letter written in 1969, scheme residents in Kwale District’s Shima Hills Scheme – formally allocated in 1967 – point to the delay in registration, and uncertainty that this delay has caused: “these farms were set-up . . . years ago, and now the farmers are working in uncertainty; they do not know when they will receive certificates to enable them to borrow development funds.”⁹

3.2 Kenyan Presidential Politics

During each of Kenya’s first three presidencies, spanning autocratic and democratic regimes, the Office of the President has leveraged significant control over settlement schemes. Our analysis begins with Kenya’s first leader, Jomo Kenyatta (1963-78), a member of the Kikuyu ethnic group. He transitioned Kenya from a multi-party democratic regime at independence to a single-party autocracy by 1969. He was succeeded by Daniel arap Moi (1978-2002), a member of the Kalenjin ethnic group. Moi’s autocracy was not as stable and consolidated as Kenyatta’s – he faced a coup

⁷ Author’s interview: Mauche Settlement Scheme, Nakuru District, 7/20/2012.

⁸ Members of Bellevue Haraka Settlement Scheme to Nyeri Senior Settlement Officer, 9/24/1975, unsorted archival material, Nyeri Lands Office.

⁹ Requests by Shimba Hills Settlement Scheme to Minister for Lands and Settlement, 9/1/1969, CC/12/21, Kenya National Archives. Translated from Swahili.

attempt in 1982 and was forced to pave the way for competitive multi-party elections in 1991. Mwai Kibaki (2002-13), a Kikuyu, gained power through competitive elections in 2002.

Kenya has high levels of ethnic voting, with each major presidential candidate's co-ethnics supporting him at rates of around 90% (Horowitz, 2019). Rates of support among ethnic groups incorporated into a presidential candidate's broader electoral coalition are also exceedingly high. As such, elections have traditionally been fought among the country's swing voters – members of ethnic groups not clearly represented by presidential contenders or their perceived alliances. Contestation over swing voters is especially fierce because no ethnic group in Kenya comprises more than around 20% of the population and hence, successful presidential candidates must win a significant portion of the country's swing voters.

Electoral alliances, and the classification of swing groups, have changed with each election.¹⁰ President Moi's two re-election campaigns saw strong opponents from the Kikuyu and Luo ethnic groups. In 1992, the combined vote share of Moi's main challengers (from these two groups) topped 60%; in 1997, his two most formidable challengers, again from the Kikuyu and Luo, collectively amassed more votes than Moi himself. Moi did not run in 2002, but Kikuyu and Luo elites united in an alliance behind Kibaki successfully defeating Moi's anointed successor who drew support largely from the Kalenjin. In his 2007 re-election campaign, Kibaki ran against a Luo-Kalenjin alliance.

3.3 Political Interference in Settlement Scheme Registration

The country's highly centralized registration process alongside the high demand for scheme registration has allowed political elites to operate with nearly unmediated ability to intervene directly in the opening and closing of the country's property rights gap (Boone, 2014). While it would be remiss to ignore the role of state capacity in understanding land registration, previous presidents have used shortfalls in state capacity to allocate the state's existing pool of resources in a manner

¹⁰Kenyatta did not contest in a presidential election during his brief electoral regime.

that benefits them politically (Bates, 1981). In this section, we rely on qualitatively data to outline elements of our theory – that low state capacity is insufficient to explain Kenya’s property rights gap, and that instead, presidents have interfered to elongate or close the property rights gap to advance their political fortunes.

One salient theme that emerges from government correspondence stored in Kenya’s archives is the very real logistical challenges that bureaucrats encounter when trying to complete scheme registration, including the physical surveying of settlement land, the construction of schools and roads, and the clearing of public spaces in the scheme.¹¹ Many of the challenges that officials highlight comport with standard state capacity explanations. For instance, in discussing the surveying of a settlement scheme in Lamu District, the District Surveyor “pointed out that inadequate funds might hamper the progress of work” and “cited the problem of shortage of technical staff.”¹² In a scheme in Nyeri District, registration stalled in 2002 due to “lack of finances” for surveying.¹³ The District Lands Adjudication Office enumerates the costs that hinder the full survey of the scheme, including items such as allowances for surveyors and supporting staff, fuel and maintenance for vehicles, stationary requirements, and other “incidentals.”¹⁴

Yet this lack in capacity to register schemes is at least partially a political choice by each president, and therefore not a sufficient explanation to explain Kenya’s property rights gap. Where a president had an interest in speeding up the registration of a particular scheme, he would visit that scheme and hold a rally to stress to local bureaucrats the importance of registration, or even allocate better trained bureaucrats to the area (Hassan, 2020). Further, while no records indicate the state’s outright refusal to register a scheme, records suggest that Nairobi could hold-off on registering a scheme, even after all of the bureaucratic work was done. For instance, Lamu’s District Surveyor

¹¹Policy Statement by the Minister of Lands and Settlement to the Press, May 14 1984, BB/11/26, Kenya National Archives.

¹²Witu Settlement Scheme Planning Meeting Minutes, 4/26/1991, ADL/9/6, Coast Provincial Archives.

¹³Nyeri Land Adjudication Officer to National Director of Land Adjudication & Settlement, 8/13/2002, unsorted archival material, Nyeri Lands Office.

¹⁴Nyeri Land Adjudication Officer to Director of Survey, 6/26/2002, unsorted archival material, Nyeri Lands Office

“reported that title mapping work was nearing completion and he would therefore require office accommodation to finalise the work” for Lake Kenyatta Settlement Scheme.¹⁵ Records suggest that he was accommodated, yet the scheme was not registered until 1998. Hence, while district-level staff play the largest administrative role in land registration and titling, and face very real logistical challenges, the Office of the President has wielded near complete control over the registration of settlement schemes.

Moreover, and in line with our first hypothesis, the historical record suggests that presidents have used this power over scheme registration to close the property rights gap differentially based on regime type. Archival evidence from the country’s autocratic era highlights the clientelistic relationship between presidents and residents living in unregistered schemes.¹⁶ Scheme residents often adopted a highly deferential strategy for demanding rights, “pleading” and “begging” for their president’s generosity in attending to requests for registration. For instance, scheme leaders in Ngerenyi Settlement Scheme “hop[ed] to have President Kenyatta” visit their unregistered scheme; “Perhaps he would agree to return to see the progress farmers are making” in an attempt to prod bureaucrats to speed-up different elements of the registration process.¹⁷ We also see this deferential language in a letter in which a settlement scheme chairman stressed the loyalty of scheme residents to President Moi and his infamous *Nyayo* governing philosophy during the autocratic era:

All the 1,600 [scheme] members are true Nyayo followers and being farmers are committed to intensifying production in the beef industry in order to improve the economy of our country . . . The members have resolved to pay a good-will visit to our Beloved President this year at a time that is convenient to him.¹⁸

This chairman writes another letter to his MP, requesting that the MP “take this appeal to His Excellency the President so that our welfare and that of our children may be enhanced towards

¹⁵Witu Settlement Scheme Planning Meeting Minutes, 4/26/1991, ADL/9/6, Coast Provincial Archives.

¹⁶Archival folios remain officially closed to researchers for 30 years, meaning that our archival evidence necessarily documents Kenya’s authoritarian era and only the very beginning of the country’s most recent democratic era.

¹⁷August 1969 Report on Ngerenyi Settlement Scheme, 10/10/1969, ADL/9/4, Coast Provincial Archives.

¹⁸Chairman Nguu Ranch to District Commissioner Machakos, 3/7/1989, BB/11/108, Kenya National Archives.

better standards of living which is truly in line with the NYAYO Philosophy.”¹⁹ In still another instance, residents use a similar language of loyalty and deference: “[we are] grateful to have this opportunity to let you know the warmth of our hearts in welcoming you and your team.”²⁰ Indeed, one letter requesting registration ends: “Thank you in advance. We beg to remain.”²¹ The language in each case underscores both the desire for land security, and the language of fealty that residents must employ to leverage support for their cause.

Similar dynamics persist into the multi-party era. Qualitative evidence from this era suggests that residents of unregistered schemes continue to ask for land formalization from their president. Yet archival records and newspaper articles suggest that presidents facing elections have tended to be more pro-active with regards to land registration than their authoritarian counterparts (Hypothesis 1), and especially among swing voters (Hypothesis 3). Take the example of Sabharwal Scheme in Kwale District, where residents were not co-ethnics of President Moi or his main challengers. The District Surveyor asked for funds because he “hope[d] to finish [surveying the scheme] within 31 days”, just three weeks before the 1997 election.²² Records indicate that he received the funds and successfully surveyed the scheme, and Sabharwal was officially registered soon after. Similarly, during Kenya’s autocratic era, Lamu’s District Surveyor “reported that title mapping work was nearing completion and he would therefore require office accommodation to finalise the work” for a particular scheme.²³ Yet the scheme was not formally registered until after elections began. These records suggest that while the Office of the President had the capacity to push through registration, leaders only felt the need to register schemes when their political future was uncertain.

Though outside the time period of our quantitative analysis, newspaper records document a similar effort by President Uhuru Kenyatta (2013 -) to close the property rights gap in the run-

¹⁹Chairman Nguu Ranch to Hon. Joseph Mulu Mutisya, 12/6/1988, BB/11/108, Kenya National Archives.

²⁰Shimba Hills Settlement Scheme to Minister for Lands, 9/1/1969, CC/12/21, Kenya National Archives. In Swahili.

²¹Shimba Hills Settlement Scheme to PC Coast, 9/1/1969, CC/12/21, Kenya National Archives.

²²Kwale District Surveyor to Kwale District Land Adjudication & Settlement Officer, 11/11/1997, ADL/9/18, Coast Provincial Archives.

²³Witu Settlement Scheme Planning Meeting Minutes, 4/26/1991, ADL/9/6, Coast Provincial Archives.

up to his 2017 re-election in perceived swing schemes – those whose majority ethnic group was unaffiliated with both his and his opponent’s ethnic alliances. Kenyatta “handed out goodies to western Kenya residents as he intensified his campaign in the region ahead of next year’s General Election ... [including issuing] title deeds to squatters at the Chebyuk Settlement Scheme,”²⁴ he “doled goodies to locals ... [including] waiv[ing] land charges for a settlement scheme,”²⁵ and launched a land survey “in a move aimed at ensuring that residents are issued with title deeds”²⁶. And indeed, experimental evidence in the run-up to this election finds that those who received property rights were more trusting of the state (Klaus, 2020*b*). Taken together, existing evidence points both to the clientelistic dynamic shaping scheme registration, and with multi-party elections, the importance in registering swing schemes.

4 Land Registration in Kenya

4.1 Data

Our aim is to explain how, once households are settled within a given scheme, decisions are made about which schemes to register – thus opening the pathway for individual allottees to close the property rights gap.²⁷ To do so, we obtained the full list of Kenya’s 494 settlement schemes as of 2013 from the Ministry of Lands. Importantly, the list gives a scheme’s year of allocation and registration status, and its year of registration if registered.

Figure 2 illustrates the spatial patterns of land registration across schemes under Kenyatta, Moi, and Kibaki, respectively. Figure 3 indicates the cumulative hectares allocated by a given year, with dots indicating the cumulative hectares registered by that year. Solid vertical lines distinguish between each presidential regime. Dashed lines represent changes in regime type. We shade

²⁴“Uhuru Hands out Goodies in Western,” Dave Opiyo and Raphael Wanjala, *The Daily Nation*, 12/15/2016

²⁵“Joho Leads ODM Team in Lamu Hunt for Votes,” *The Daily Nation*, 3/18/2017.

²⁶“Land Survey Launched in Drive to Issue 800 with Title Deeds”, Kalume Kazungu, *The Daily Nation*, 3/10/2016.

²⁷As we describe in Section ??, the closing of the property rights gap does not occur until an individual obtains a title deed – an action that cannot occur without the government registering the land.

presidential election years in red. Registration rates under Kenya’s electoral years were nearly 33% higher than rates under the country’s autocratic years – 6% of schemes in any given year were registered under autocratic rule and 9% during electoral rule – demonstrating that closures of the property right gap were concentrated in the electoral era.

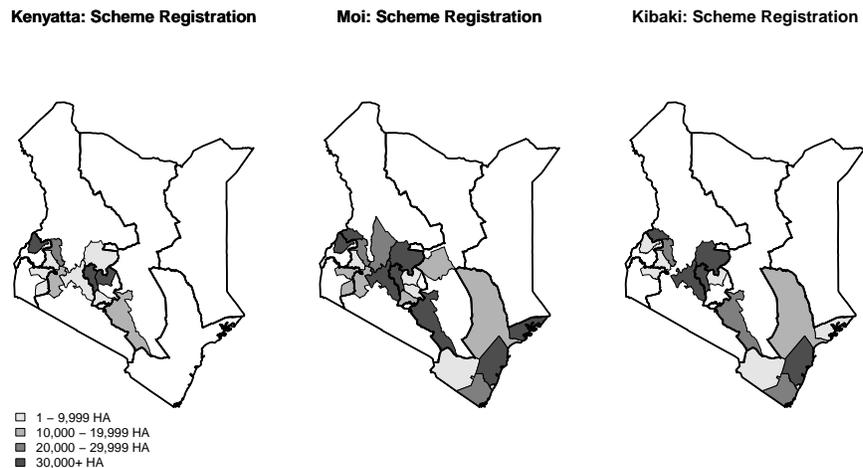


Figure 2: Property Rights Gap Over Space. These maps give the hectares registered under each of Kenya’s first three presidents by district.

Our theoretic outcome of interest is scheme registration. To examine this outcome quantitatively, we create a time-series dataset at the scheme-year level: a scheme enters the dataset the year it was allocated and exits the dataset the year it is registered. Throughout our statistical analyses, our dependent variable is the *likelihood of registration* for a given scheme in a given year. We estimate effects using Cox-Proportional Hazards models given the structure of our data.

We create our independent variables by merging the time-series dataset with measures relevant to our theory. We examine the effect of regime type (Hypothesis 1) by including an indicator variable for years in which the country is an electoral regime. As a way of evaluating which residents autocratic and democratic regimes are likely to prioritize (Hypotheses 2 and 3), and given the close connection between ethnic identity and political partisanship in Kenya, we use the ethnic composition of schemes as a proxy for allottees’ level of support for a president. For this measure,

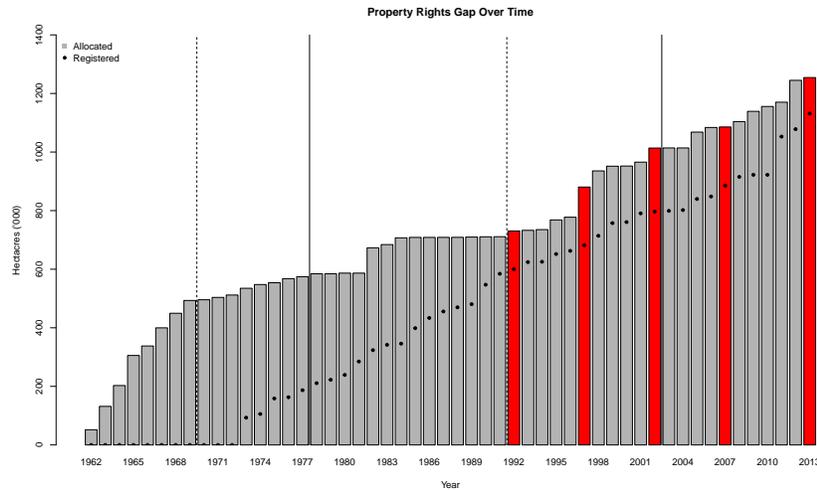


Figure 3: Property Rights Gap Over Time. This figure displays Kenya’s property rights gap over time. The bars give the hectares of allocated settlement scheme land by that year. The dots give the hectares of registered settlement scheme land. The dashed lines demarcate between regime types; the solid lines demarcate between presidencies. Presidential election years shaded in red.

we would ideally collect the ethnicity of each scheme recipient. But given the politicized nature of land and ethnic identity, much of this information is withheld from researchers. Instead, we use the ethnic composition of the local-level administrative jurisdictions in which schemes were located during the 1962 and 1989 censuses (the only censuses that release complete local-level ethnicity data).²⁸ We geo-reference 486 (98%) schemes to the location level, the lowest administrative unit in the 1962 census, and to the sub-location in the 1989 census: one tier below the location and the lowest administrative tier in the Kenyan state.²⁹ Section 4.1.1 below validates this measure.

To examine our third hypothesis, we measure the presence of swing voters under electoral regimes in two ways. First, we include the president’s lagged vote share for the constituency in which the scheme is located.³⁰ Second, we use census data to determine the percentage of scheme residents from swing ethnic groups, which we base on the alignment of different ethnic groups in

²⁸Models that estimate registration in the pre-1989 era use 1962 census data. Models estimating registration after 1989 use the 1989 census data.

²⁹The average sub-location had less than 6,700 residents by 1989. The average settlement scheme has around 570 individual plots.

³⁰The constituency level was the lowest level at which election results for our time period were released.

a given presidential election. As discussed in Section 3.2, each election in our sample featured a strong candidate and challengers only from Kenya’s three most politically-relevant ethnic groups: the Kalenjin, Kikuyu, and Luo. With Kenya’s high levels of ethnic voting, no incumbent could reasonably expect to change the level of support among voters from these three groups. Instead, candidates focused their attention on swing voters not represented by either a challenger or his running mate (Horowitz 2019). We thus code all groups other than these three as swing.³¹

The models also include relevant control variables. Two variables evaluate the role of intermediary elites, and specifically, whether the Minister of Lands or area MP was a co-ethnic with the majority of scheme residents in a particular year. As a measure of state capacity, we use data from Burgess et al. (2015) to incorporate yearly expenditures on roads in a settlement scheme’s containing district. We also include scheme-level measures that approximate the difficulty of registration: the size of each settlement scheme in hectares and number of settlers (both logged). Further, we include a scheme’s level of ethnic heterogeneity by creating a Herfindahl index from the respective census. Where appropriate, models also control for a scheme’s age. Summary statistics for the independent variables and controls used in the main models are listed in Table 1.

4.1.1 Validating Census Measures

Use of census data relies on a few assumptions that we attempt to validate. First, we assume that the ethnic composition of a scheme is similar to the lower-level administrative unit containing the scheme. We validate this assumption by collecting the names of scheme residents from archival documents and the Ministry of Lands across 53 schemes (11% of our sample). Because surnames in Kenya closely correlate with ethnic identity, a Kenyan research assistant was able to identify the ethnicity of each allottee. In the Appendix, we show that the ethnic composition of these schemes is highly correlated with the ethnic composition of the scheme’s corresponding sub-location (0.77).

³¹Our results are substantively similar if we only code core groups as those with a viable presidential candidate in a specific election.

	Mean	Min	Max
Multi-Party Era	0.39	0	1
% Co-ethnic with President	0.26	0	1
President’s Lagged Voteshare	0.48	0	1
% Swing Ethnic Group	0.61	0	1
Land Minister Co-ethnic	0.38	0	1
Co-ethnic MP	0.76	0	1
Road Expenditure	12.77	1.0	18.58
Scheme Size, HA logged	6.85	0	11.49
No. Settlers, logged	5.42	0	8.25
ELF	0.36	0.06	0.91
Scheme Age	10.3	1	46
Election Run-Up	0.44	0	1
Paramilitary Officers	3.92	0	37
Immediate Post-Coup	0.18	0	1
“Outsider” Scheme	0.15	0	1

Table 1: Summary Statistics. Our main independent variables are listed above the first dashed line, controls are listed in-between the dashed lines, and independent variables for the analyses in Section 5 are listed below the second dashed line.

This correlation is likely because administrative units were drawn around schemes (Boone, 2011).

Second, we evaluate the extent to which migration altered the accuracy of our ethnicity measures over time. Despite documented migration in and out of schemes, we are less concerned with the resulting changes in the *overall* ethnic composition of each scheme. As Figure 1 shows, occupation licenses prohibited the selling or transfer of land. Further, our reading of archival records indicates that where administrators allowed land sales or transfers, it was to co-ethnics of the initial allottee, ensuring that the ethnic composition of the scheme remained relatively intact. Nonetheless, we validate this assumption systematically by comparing our 1989 measure of ethnic composition with census data from 2009. The 2009 census only released the name of the ethnic majority of each sub-location (as opposed to a full percentage breakdown for each ethnic group, as in 1989). We geolocate 461 of the 486 schemes in our sample (95%) to their 2009 administrative units. We then compare whether a scheme’s containing sub-location changed ethnic majority

from 1989 to 2009. We find that the ethnic majority of nearly 91% geolocated schemes had the same ethnic majority in 1989 and 2009 (Appendix). The high degree of overlap in schemes' majority ethnic group over time thus suggests a high degree of stability in schemes' overall ethnic composition.

4.2 Analyses and Results

Table 2 examines the role of regime type on the likelihood of scheme registration and presents results that speak to our three hypotheses. Our main variable of interest in Column 1 is an indicator variable for years in which the country was under electoral rule. This model represents the clearest test of our first hypothesis. Column 2 replicates this analysis after restricting analysis to Moi's tenure which spanned autocratic (1978-91) and electoral (1991-2002) regimes. Doing so allows us to observe whether there was a switch in the logic of registration across regime type while holding president constant.³² In both columns, the positive result on the indicator variable for years in which the country is considered an electoral regime suggests that the likelihood of scheme registration varies systematically across regime type, with higher likelihoods of registration during electoral regimes: without electoral accountability mechanisms, autocrats could stymie registration and break clientelistic bonds only sparingly whereas elected leaders were more willing to formalize land rights in exchange for political support.

Columns 3-8 examine our second and third hypotheses. Column 3 of Table 2 interacts the indicator for years in which the country was under electoral rule with the percentage of scheme residents who are co-ethnic with the current president. Column 4 replicates this analysis for Moi's presidency. These two columns find that during autocratic (electoral) periods, co-ethnic schemes were more (less) likely to be registered in any given year as suggested by the negative interaction term between the indicator variable for years in which the country was under electoral rule and the percentage of scheme residents who are co-ethnic with the current president.

³²We cannot run this analysis for Kenyatta as there were not enough schemes registered during his electoral years.

Columns 5 and 6 buttress these results. These columns split the full sample by regime type and examine the percentage of scheme residents who were co-ethnics of the sitting president under autocracy (Hypothesis 2, Column 5) or multi-partyism (Hypothesis 3, Column 6). Column 5, which only examines Kenya's autocratic years, finds that co-ethnic schemes were more likely to be registered than schemes where the majority of residents were not co-ethnics with the sitting president. Column 6 finds the opposite result for the electoral era: co-ethnic schemes were less likely to be registered in a given year than non-co-ethnic schemes.

Column 7 more explicitly examines the role of swing voters by including the percentage of scheme residents who were from swing ethnic groups for each election. The positive result on this variable shows that schemes inhabited by swing groups were more likely to receive registration. Column 8 uses an alternative measure of swing voters – each president's vote share from his previous election.³³ The positive result indicates that presidents were more likely to register schemes inhabited by residents who had a history of electorally supporting them, and would be likely to vote for them again in the future.³⁴

Taken together, the results from Table 2 comport with our theory. Columns 1-2 show that scheme registration overall was more likely during years of multi-party elections, as popular support was more necessary (Hypothesis 1). And the remaining columns demonstrate that registration was limited to supporters who were crucial to their coalition given regime dynamics – core supporters under autocracy (Hypothesis 2) and swing voters under electoral rule (Hypothesis 3).

Figure 4 simulates the results from Columns 5-6. The left (right) side of the figure examines the autocratic (electoral) era using results from Column 5 (6). We simulate expected registration rates in a given year for schemes in which 90% (red hash) or 10% of allottees (blue solid) are a president's co-ethnics.³⁵ These simulations suggest that under autocracy, the likelihood of registration

³³We restrict analysis to after the first multi-party elections in 1992.

³⁴In other tests (not shown), we interact lagged vote share with the percentage of scheme residents who are co-ethnic with the current president. This interaction term is not significant, suggesting that registration in schemes with high levels of lagged vote share is not driven by the co-ethnicity of these schemes with the president.

³⁵We hold continuous variables to their mean and indicator variables to 0. The simulation for the electoral era nor-

Table 2: Land Registration Across Regime Type

	1	2	3	4	5	6	7	8
	Full Sample	Moi Presidency	Full Sample	Moi Presidency	Autocratic Era	Electoral Era	Electoral Era	Electoral Era
Multi-Party Era	0.26*	0.33*	0.63***	0.63**				
	(0.12)	(0.16)	(0.15)	(0.19)				
% Co-ethnic w/ President			0.63*	0.01	0.68**	-0.62*		
			(0.26)	(0.36)	(0.26)	(0.31)		
% Swing Ethnic Group							0.42†	
							(0.24)	
President's Lagged Voteshare								0.93*
								(0.43)
Multi-Party Era * % Co-ethnic w/ President			-1.84***	-1.47*				
			(0.45)	(0.69)				
Land Minister Co-ethnic	-0.53***	-0.75†	-0.56**	-0.88*	-0.63**	0.38	0.31	0.69*
	(0.16)	(0.43)	(0.18)	(0.43)	(0.22)	(0.29)	(0.29)	(0.32)
Co-ethnic MP	0.15	0.29	0.19	0.30	0.36†	0.10	0.09	0.07
	(0.15)	(0.19)	(0.15)	(0.19)	(0.22)	(0.23)	(0.23)	(0.31)
Road Expenditure	0.02†	0.04*	0.03*	0.05**	0.08**	0.02	0.02	0.01
	(0.01)	(0.02)	(0.01)	(0.02)	(0.03)	(0.01)	(0.01)	(0.02)
Scheme Size, HA logged	0.08	0.22**	0.09†	0.22**	0.22*	0.18***	0.19***	0.19***
	(0.05)	(0.08)	(0.05)	(0.07)	(0.09)	(0.05)	(0.05)	(0.07)
No. of Settlers, logged	0.04	-0.12	0.02	-0.15†	-0.12	-0.12	-0.13†	-0.15
	(0.06)	(0.08)	(0.06)	(0.08)	(0.09)	(0.08)	(0.08)	(0.11)
ELF	0.53*	0.26	0.61**	0.29	0.75*	0.83*	0.85*	1.17*
	(0.22)	(0.29)	(0.22)	(0.29)	(0.31)	(0.38)	(0.38)	(0.49)
Scheme Age	-0.03	-0.03	-0.02	-0.03		-0.11***	-0.10***	-0.08*
	(0.02)	(0.03)	(0.02)	(0.03)		(0.03)	(0.03)	(0.04)
Num. obs.	5877	2709	5877	2709	3526	1907	1907	1907

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, † $p < 0.1$. Cox-proportional hazard models of scheme registration across regime type. Columns 1 and 3 examine the full time sample. Columns 2 and 4 examine Moi's presidency. Column 5 examines the autocratic era alone, and Columns 6-8 the electoral era. Variable and model descriptions in text.

was 50% for a co-ethnic scheme 10 years after its allocation, while only 37% for a non-co-ethnic scheme. This result flips under electoral rule: co-ethnic schemes had a 53% likelihood of registration 10 years after allocation, while non-co-ethnic schemes had a 68% likelihood.

malizes the start year to 1991 to ease interpretation. We standardize registration to years since the scheme's initial allotment.

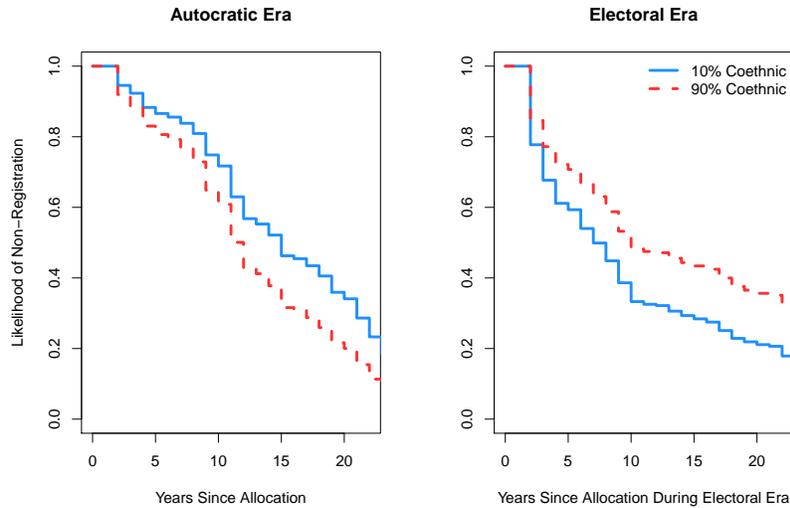


Figure 4: Survival Plots of Scheme Registration by Regime Type. This figure displays results from simulated survival times from Columns 5 (left) and 6 (right) of Table 4. The left (right) side gives scheme survival times during the autocratic (electoral) era. The red hashed (blue solid) line simulates results for schemes in which 90% (10%) of scheme allottees are a president’s co-ethnics.

5 Supplemental Analyses

5.1 Empirical Extensions of Theory

Our theoretical framework lends itself to other observable implications that we examine empirically. We begin by examining the distribution of land rights under Kenya’s autocratic leaders in their attempts to shore up core support in critical areas during particularly critical moments. Specifically, we focus on registration in the wake of rebellion and after a failed attempted coup. Together, insurgencies and coups represent the majority of domestic threats that autocrats face to their rule (Svolik, 2012). These tests therefore examine the extent to which autocrats face incentives to register land when they face moments of weakness that make their base even more pivotal.

First, we examine Kenyatta’s distribution of land rights in the aftermath of the *Mau Mau* rebellion which pitted Kikuyu insurgents against the colonial state and Kenyan loyalists (Branch, 2009). Jomo Kenyatta’s support for *Mau Mau* was ambiguous during the conflict, but upon independence,

he distanced himself from the *Mau Mau* movement, pursuing policies aimed at quelling future dissent. With respect to scheme registration, it is possible that Kenyatta focused registration in former *Mau Mau* zones – areas prone to future unrest. We thus examine scheme registration in areas that experienced *Mau Mau* violence. We use data from Eynde, Kuhn and Moradi (2017) on paramilitary officers who were key colonial combatants during the uprising to proxy for the location and intensity of the war.³⁶ The data includes a snapshot of officers in 1957 and lists the administrative division (one administrative tier lower than a district) in which each officer was stationed. Our main assumption is that officers were posted where violence was heaviest.

Column 1 of Table 3 includes this count variable and Column 2 interacts it with the percentage of scheme residents that were Kenyatta’s co-ethnics. Our results suggest that Kenyatta was more likely to register schemes in former volatile areas, as measured by the presence of police (Column 1), and that this result is driven by Kikuyu schemes (Column 2). These findings are in-line with our theoretical framework: that autocratic leaders distribute land rights to their core to consolidate support. In this case, and as found previously (Branch, 2009; Dyzenhaus, 2021), Kenyatta registered schemes in areas that had high levels of *Mau Mau* violence to build support among co-ethnic non-supporters and to reward loyalists who were allied with the regime from the onset.

Second, we examine scheme registration given Moi’s need to consolidate popular support during his autocratic rule. The beginning of Moi’s autocracy was precarious as he faced significant elite and popular discontent.³⁷ Rival elites launched a coup against him in 1982. The coup almost succeeded, in part, because of an outpouring of popular support for the coup plotters and an unwillingness of other elites to take decisive action in support of Moi during those crucial hours. We thus examine if Moi used scheme registration to shore up popular support in the aftermath of the coup. We find that registration rates in the year after the coup were significantly higher than during other

³⁶Eynde, Kuhn and Moradi (2017) collect data from the *Kenya Police Service Registers* on Kenya’s colonial police force.

³⁷Moi faced elite opposition from Kikuyu and Luo elites who had been empowered under Kenyatta and did not want to see a transfer of power to Moi. Further, Moi did not have consolidated co-ethnic support because many Kalenjin did not believe he used his elite status under Kenyatta to secure sufficient resources for his co-ethnics.

parts of his presidency (Column 3). Further, registration was concentrated among his co-ethnics (Column 4), suggesting that Moi used registration to consolidate support among his base.

Columns 5-8 of Table 3 examine further extensions of our theory during the electoral era. We begin by interrogating the role of core voters under electoral rule. While core voters as a whole were less pivotal to each election than swing voters, some core voters living outside core areas were electorally important for other reasons. Here we refer to Kalenjin and Kikuyu households (co-ethnics of Presidents Moi and Kibaki, respectively) living outside their group's "traditional homeland." These households, described as "migrants" and seen as ethnic outsiders, can help presidential and parliamentary candidates establish an electoral foothold in swing areas (Kasara 2016). These communities, however, have also occupied a precarious and contentious space in Kenyan politics. With politicians framing these groups as "invaders" who threaten the land and political power of "locals," ethnic outsiders have also been more vulnerable to election-time violence (Boone, 2014; Klaus, 2020a).

We thus evaluate whether scheme registration served as a *de facto* redistricting tool, whereby presidents secured the land rights of migrant co-ethnics to solidify electoral support non-core areas, thereby attempting to make these zones more electorally competitive for a president and his coalition. Columns 5-6 of Table 3 include a measure of whether the ethnic majority of a scheme changed between the 1962 and 1989 censuses. Where the majority changed, we code these as "ethnic outsider" schemes: those where residents are not considered indigenous to the area. We interact this variable with the percentage of scheme residents who are co-ethnic with the current president. We restrict analysis to periods after election violence, as these are moments when the land rights of "outsiders" is most precarious. We find positive results in the post-violence period during Moi (Column 5) and Kibaki's (Column 6) tenure, suggesting that presidents used land registration as a way to maintain their credibility as good patrons while establishing permanent bases of support outside their core areas.³⁸

³⁸We substantiate these violence results through additional tests (not shown). The registration of "outsider schemes"

The remaining two columns of Table 3 examine the shortened time horizons of elected leaders. Column 7 adds an indicator variable for the year preceding and of each president's re-election. Column 8 interacts this variable with the percentage of scheme residents from swing ethnic groups. Column 7 thus evaluates the overall drive to increase registration in the run-up to elections, and Column 8 indicates whether registration in these periods was concentrated among groups deemed pivotal for the election. The results from these columns show that presidents facing elections were more likely to register schemes in the run-up to a re-election campaign (Column 7), and especially for schemes inhabited by swing groups (Column 8). These findings are thus in-line with our theoretical prior that leaders facing elections distribute land rights for short-term political gain.

5.2 Refuting Alternative Arguments

The Appendix reports results from additional analyses that aim to rule out alternative arguments. Notably, we attempt to alleviate concerns that the logic of scheme registration is endogenous to the logic of scheme allotment. We run supplemental analyses where we restrict analysis to schemes that were created under a previous president, and thus, where the current president could not affect the creation of schemes nor their ethnic composition. We examine registration under Moi after restricting analysis to only those schemes created under Kenyatta, and we examine registration under Kibaki after restricting analysis to schemes created under either Kenyatta or Moi. The results from these robustness tests do not substantively alter the results presented above.

In addition, we address a potential concern that the drop in registration rates for core supporters during the electoral era was due to the single-shot nature of land registration and a lower supply of co-ethnic schemes to register. If Moi had registered all of his co-ethnic schemes during his autocratic reign, then mechanically, he could not use registration to reward his co-ethnics during his electoral rule. And if Kenyatta (Kikuyu) had registered all of his co-ethnic schemes then Kibaki

following the 2007 election was not confined to schemes that experienced actual violence (there is no systematic, local-level violence data during Moi's presidency). That is, violence-affected schemes, including Kikuyu-majority schemes, were no more or less likely to be registered than others.

Table 3: Land Registration: Additional Analyses

	1	2	3	4	5	6	7	8
	Kenyatta Presidency		Moi Autocratic Era		Moi Electoral Era	Kibaki Post 2007	Electoral Era	
Paramilitary Officers	0.06*** (0.01)	-0.20† (0.12)						
% Co-ethnic w/ President		-0.17 (0.51)		-0.70 (0.56)	-1.38* (0.63)	-0.51 (0.74)	-0.59† (0.31)	
% Co-ethnic w/ President * Paramilitary Officers		0.30* (0.14)						
Immediate Post-Coup			0.55* (0.24)	0.11 (0.32)				
% Co-ethnic w/ President * Immediate Post-Coup				2.07* (0.88)				
“Outsider” Scheme					-1.42** (0.53)	0.33 (0.55)		
% Co-ethnic w/ President * “Outsider” Scheme					3.92*** (1.14)	3.63* (1.83)		
% Swing Ethnic Group						0.42† (0.24)		-0.08 (0.33)
Election Run-Up							0.50** (0.16)	-0.03 (0.31)
% Swing Ethnic Group * Election Run-Up								0.86* (0.43)
Land Minister Co-ethnic	-0.26 (0.63)	-0.01 (0.66)	-16.12 (1205.08)	-15.68 (1032.81)	-0.16 (0.48)	1.49** (0.54)	0.33 (0.29)	0.20 (0.29)
Co-ethnic MP	-0.75 (0.51)	-0.60 (0.54)	0.45† (0.25)	0.43† (0.25)	-0.23 (0.36)	-0.38 (0.48)	0.10 (0.23)	0.08 (0.23)
Road Expenditure	0.26† (0.14)	0.33* (0.16)	0.09** (0.03)	0.08* (0.03)	0.02 (0.02)	-0.01 (0.04)	0.01 (0.01)	0.02 (0.01)
Scheme Size, HA logged	0.02 (0.15)	0.00 (0.15)	0.18† (0.10)	0.18† (0.10)	0.27** (0.10)	0.16 (0.11)	0.18*** (0.06)	0.18*** (0.06)
No. of Settlers, logged	0.07 (0.19)	0.13 (0.20)	-0.11 (0.11)	-0.11 (0.11)	-0.25* (0.12)	0.03 (0.17)	-0.12 (0.08)	-0.13† (0.08)
ELF	-0.54 (0.69)	-0.38 (0.75)	0.65 (0.40)	0.73† (0.41)	-0.18 (0.63)	0.74 (0.75)	0.81* (0.38)	0.83* (0.38)
Scheme Age			10.38 (238.76)	10.67 (211.14)	-0.14*** (0.04)	-0.02 (0.18)	-0.10*** (0.03)	-0.10*** (0.03)
Num. obs.	1690	1690	1836	1836	862	566	1907	1907

*** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$; † $p < 0.1$. Cox-proportional hazard models of scheme registration. Columns 1-2 examine Kenyatta’s presidency. Columns 3-4 examine Moi’s autocratic years. Column 5 examines Moi’s electoral years (which were all marred by land-related violence). Column 6 restricts analysis to the post-2007 period, the years of Kibaki’s presidency after electoral violence. Columns 7-8 examine the electoral era as a whole. Variable descriptions in text.

(also a Kikuyu) would not be able to use registration as a way to reward his co-ethnics. We rule out this alternative argument by showing that the percentage of unregistered co-ethnic schemes did not change substantively before and after the start of multi-party elections. Instead, the imperative of re-election required Moi and Kibaki to alter for whom they formalized land rights.

We also re-estimate our main analyses using alternative specifications and adding addition

controls. We evaluate whether scheme registration is more likely over time by running OLS regressions with linear time trends. In other specifications we include a frailty term. We also re-run our main analyses after including a measure of agricultural productivity (to alleviate concerns that land value affected the creation or registration of schemes), a proxy measure for bureaucratic state capacity, and each scheme's distance to its district capital. The results for nearly all of the main regressions hold giving us confidence in our results.

Finally, we briefly evaluate other measures of land formalization. Our measure – scheme registration – examines the conditions under which the state begins to close the property rights gap. But closing the property rights gap also involves bottom-up processes, and allottees on registered schemes may still remain without title deeds.³⁹ While complete titling data at the individual-level is difficult to obtain in Kenya, we were able to obtain the complete list of allottees for nine settlement schemes. We show that titling rates across these schemes seem to converge at 100% – as time progresses, more individuals obtain their title deed, with title deed acquisition nearly complete among the sample's first registered schemes. This suggests that, in the long-run, the main impediment to closing the property rights gap is less individual incentives and capacities, and more so the state's willingness to distribute land rights.

6 Conclusion

As several recent and notable studies have observed, struggles over rights and access to land can profoundly shape the dynamics of contention and political order across agrarian and non-agrarian states alike (Boone, 2014; Albertus, 2015; Klaus, 2020a). Building on this key observation, this article examines the political contexts in which land users are most likely to acquire rights to their land. Specifically, we engage with enduring political economy puzzle: if the provision of

³⁹The literature on title deed acquisition focuses mostly on the individual-level incentives and capacities to acquire a title deed, such as high costs (Boone et al., 2020), farmer income (Alston, Libecap and Mueller, 1999; Balan et al., 2019), social status and power relations (Honig, 2017; Harris and Honig, 2021), or one's elected representatives (Brulè, 2020).

land rights raises incomes and improves farm efficiency, when and why do elites withhold tenure rights from landholders? The article has aimed to identify both the conditions under which leaders formalize rights, as well as the type of claimants who are most likely to benefit from such rights.

Drawing on land registration data from Kenya, we show that autocratic leaders are more likely to withhold land rights, while elected leaders are more likely to grant such rights, especially when doing so improves their chances of electoral survival. We also examined registration sub-nationally, focusing specifically on the citizens most likely to receive formalization within each regime type. Across both autocratic and electoral regimes, we find that leaders prioritize pivotal supporters. Yet because perceptions of political threat vary between regime type, views about which group is pivotal – to regime survival or electoral victory – also changes. Whereas autocrats prioritize core supporters, whose strong support is often sufficient to maintain popular legitimacy under autocracy, elected leaders prioritize swing voters who can help ensure their electoral victory.

Broadly, by examining the timing and patterns of land rights formalization, we explain how and why the logic of distribution changes between autocratic and electoral regimes, contributing to larger debates about how regime type effects distributive practices, and under electoral regimes, whether parties are more likely to distribute benefits to core or swing voters.

More so, we suggest that in contrast to the building of roads, schools, or health clinics, the distribution (i.e., formalization) of land rights represents a very particular type of clientelistic good. First, in addition to serving as a source of wealth accumulation, land also has symbolic importance, imbuing land holders with a sense of identity and belonging. This makes the distribution of land rights both a potentially more powerful distributive good, as well as a more contentious one. Second, the selective distribution of land rights is a way to alter the demography of a political space, providing leaders with a de facto redistricting tool. And third, and most importantly, because the provision of land rights is generally irrevocable, doing so requires elites to relinquish social and political control in exchange for some other, often more short-term electoral advantage.

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