Who settles your land palavas? Ambient legitimacy and institutional change in rural Liberia*

Matthew K. Ribar†

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Abstract

African governments are expanding formal land governance across the continent. Does this expansion erode the authority of customary institutions which currently manage property rights? I argue that customary institutions' ambient legitimacy—the extent to which citizens perceive that other community members rely on the institution, thereby legitimating it—preserves their authority in the face of state expansion. To test this theory, I embed a series of experiments into a survey of 1,325 household heads across rural Liberia. Receiving information about formal land committees increases respondents' confidence in these committees' ability to resolve conflict, but respondents did not lose trust in their customary institutions until others began to use formal institutions. These results add to our understanding of customary authorities in African politics; show that social equilibria rather than state capacity or institutional quality drive citizens' choice of conflict resolution institutions; and explore the conditions under which institutions change.

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†Postdoctoral Research Associate, Department of Political Science, Washington University in St. Louis, mribar@wustl.edu

African governments are expanding access to formal land governance across the continent, often via land committees which operate at the local level. This institutional expansion is meant to alleviate disputes over land and natural resources which are increasing in both frequency and severity across much of Africa (McGuirk and Nunn 2025) and unlock potentially transformative agricultural intensification (Deininger and Goyal 2024). However, these land committees are expanding into a role previously filled by customary or traditional institutions, which have a long history of indigenous land governance. Expanding the scope of formal land governance brings the state into conflict with these customary institutions and potentially erodes their ability to resolve conflict, even where state institutions lack the capacity to resolve conflicts themselves. How does the expansion of formal land governance affect these pre-existing institutions? And when do citizens switch to bringing land disputes to formal rather than informal institutions?

Citizens often continue to rely on informal or customary institutions to adjudicate land disputes, even where formal land governance has become increasingly available. In taking their disputes to customary institutions, citizens implicitly reify customary institutions as legitimate actors (Lund 2008). Consequently, customary institutions have high levels of ambient legitimacy: citizens see other members of a community relying on these institutions, which is the clearest signal that these institutions are legitimate. When households bring a dispute to a conflict resolution forum, they must consider not only their own institutional preferences, but the other side's preferences as well. Once other members of a community start to rely on formal land governance, the set of conflicts in which it makes sense to rely on customary governance shrinks, leading to a shift in this equilibrium (Greif and Laitin 2004). Social equilibria, rather than institutional quality or state capacity, seem to drive citizens' choice of institutions.

This paper explores these questions in the context of Liberia, where a 2018 land reform aimed to increase the availability of formal dispute resolution by establishing Community Land and Development Management Committees (CLDMCs) across the country. Absent CLDMCs, a customary authority such as a town chief generally resolves conflicts in Liberia (Isser, Lubkemann, and N'Tow 2009); as of 2019, only 17 percent of households in Liberia had some form of formal documentation for their land (Ribar 2026). These CLDMCs transfer control over land governance from an informal author-

ity to a state-recognized committee. However, these CLDMCs are still being rolled out, and only a fraction of Liberian communities have formed their CLDMC. It is unclear how broadly CLDMCs will be adopted, making this period in Liberia a critical juncture in which institutional change is possible, but not certain (Callen, Weigel, and Yuchtman 2024).[1]

I illustrate my theory through a series of experiments embedded into a field survey of 1,325 household heads across six districts of rural Liberia. One experiment informs a random set of respondents about the roles and competencies of CDLMCs; it shows the presence of formal land governance need not erode customary institutions. Treated respondents have 0.19 to 0.21 standard deviations higher confidence in the CLDMC's ability to resolve a series of disputes, but no equivalent decrease in their confidence that the chief could resolve disputes. To measure respondent's confidence in these institutions, I present respondents with a series of hypothetical land conflict and ask respondents about their confidence in the chief and CLDMC's ability to resolve these conflicts. For some of these scenarios, I include a second experiment, which randomly varies whether CLDMCs previously resolved an unrelated conflict in the community. When citizens learned that CLDMCs had previously resolved a conflict, they were 0.10 standard deviations *less* confident that their chief could resolve the scenario.

An extensive literature documents the effect of institutions broadly defined on a variety of important outcomes, including economic growth (Acemoglu, Johnson, and Robinson 2001; North 1990; Deininger and Goyal 2024), conflict resolution (Murtazashvili and Murtazashvili 2021; Boone 2014), and state capacity (Albertus 2021; Scott 1998). Institutions are social equilibria sustained by self-fulfilling beliefs about their legitimacy. Individuals must consider not only their own preferences for conflict resolution, but the extent to which other parties to the dispute perceive an institution as legitimate. Otherwise, conflicts can linger, unresolved, as the parties quibble over the correct venue (Lund 2008; Eck 2014). Where the fraction of respondents willing to use customary institutions shrinks, the set of cases where it makes sense to rely on chiefs likewise evaporates, and the equilibrium unravels (Greif and Laitin 2004). This process, however, is difficult to

1. Between 70 and 220 communities have formed CLDMCs (Peters 2026). Only 53 percent of my survey sample had heard of a CLDMC.

observe because institutional equilibria shift slowly, often accelerating in the presence of some critical juncture (Callen, Weigel, and Yuchtman 2024). Experimentally manipulating respondents' beliefs about both the competency of the CLDMCs and the extent to which others in the community have begun to rely on CLDMCs isolates the ambient legitimacy mechanism for institutional change. By showing how other community members' reliance on CLDMCs—rather than considerations of institutional quality—shift confidence in informal institutions, this paper traces how institutions change in real time during a rare 'critical juncture.'

Households in Liberia and elsewhere in the developing world often rely on a combination of formal and informal, or customary, institutions to provide services such as conflict resolution (Lust 2022; Funjika and Honig 2024).[2] Existing research often explains the persistent roles that customary authorities play by pointing towards citizens' favorable evaluations of the quality of services rendered by these customary institutions (Acemoglu et al. 2020; Winters and Conroy-Krutz 2021; Bezares Calderón et al. 2026). Alternative research highlights factors such as chiefs' role in allocating property rights (Baldwin and Ricart-Huguet 2023; Ribar 2026), historical legacies (Nathan 2023; Acemoglu, Reed, and Robinson 2014), and chiefs' roles as interlocutors between the state and rural citizens (Baldwin 2016). This paper adds to this existing literature by highlighting chiefs' ambient legitimacy: households bring disputes to the chief because they see their neighbors doing so, and in so doing they legitimate the chief's role in conflict resolution. Moreover, this paper helps build a descriptive understanding of this forum shopping by characterizing how citizens use formal institutions to appeal decisions rendered by their chiefs.

Finally, this paper speaks to a growing literature which seeks to explain the presence or absence of formal property rights around the developing world. Formal property rights are a critical part of state-building which renders rural areas "legible" to the state (Scott 1998). Both providing and withholding property rights can provide political returns to states (Albertus 2021; Janvry, Gonzalez-Navarro, and Sadoulet 2014). Consequently, this

2. By formal institutions, I mean institutions which are promulgated and recognized by the state. Elaborate systems of conflict resolution norms can and often do exist outside of the state. For example, see Ellickson (1991).

literature has focused primarily on the supply side of formalization, exploring when governments, donors, and other elites extend formal property rights. However, even when states make formal property rights available, they must contend with rural elites who resist or potentially capture land governance (Boone 2014; Ribar 2026). Less is known about how these local politics condition the *demand* for formal property rights. While other literature studies how customary elites navigate this political arena (Firmin-Sellers 1995; Berry 2001), comparatively little literature explicitly centers how citizens navigate the change between formal and informal property rights.[3] This paper shows how coordination problems among citizens may slow the uptake of formal conflict resolution institutions and allow formal institutions of conflict resolution to languish unused where informal institutions provide adequate land tenure institutions.

1 Ambient legitimacy and conflict resolution

When deciding where to bring a conflict to be resolve, citizens must consider not only their own preferences but also the legitimacy of the institution—which affects whether the opposing side acquiesces to using a chosen forum. When citizens bring their disputes to a forum, it sediments that institutions' legitimacy, reproducing the institutional equilibrium. When CLDMCs are introduced, therefore, citizens are unlikely to immediately bring conflicts to them. However, should a subset of households—presumably those with the strongest preferences towards formal land governance—start bringing disputes to the CLDMC, the authority of the chief would be eroded. More households would bring disputes to the CLDMC, leading to a cascade in which bringing disputes to a CLDMC is the new equilibrium.

1.1 Institutions of conflict resolution

Institutions are the mutually agreed upon set of rules which condition how citizens interact—'the rules of the game' (North 1990, 1). These institutions are crucial for economic growth: citizens cannot make utility-improving investments without clarity as to

3. For a notable exception, see Honig (2022a).

how future conflicts would be resolved. Institutions which govern property are particularly critical given how the agricultural sector dominates employment in many African countries. Within rural property rights institutions, conflict resolution and land governance are essentially synonymous: property rights are meaningless without the ability to exclude others from one's property, so to enforce property rights is to resolve conflicts.[4]

If these rules are mutually agreed-upon, then how do they change over time? One answer is that individuals drive change in institutions. Entities, the argument goes, change their institutions when the individual returns to doing so outweigh the individual costs (North 1990). For example, mining communities in the American West instantiated strong property rights institutions within themselves after mineral discoveries increased deadweight loss inflicted by poor property rights (Libecap 1989). In the African context, such theories translated into a long-standing assumption that agrarian households would seek formal land titles when and if the value of their land increased (Deininger 2003, 33–36).[5] Ribar (2026) demonstrates this phenomenon empirically: titling rates are higher where land values—or the returns to agricultural investments enabled by secure land title—are higher.

However, citizens can only seek formal property rights when states provide the opportunity for households to formalize. Low state capacity, particularly in hinterlands or remote areas, complicates the provision of land titles (Herbst 2014). Providing titles is also expensive, as the process requires maintaining and updating land registries, even if states are able to pass some of the costs onto households who apply for titles (Deininger and Goyal 2024). On the other hand, Scott (Scott 1998) famously argues that titles underpin the extent to which citizens and their land are "legible" to the state. Once landholdings are legible, states can more efficiently collect taxes. States may also withhold land titles to create a 'property rights gap,' which can in turn foster farmers' dependence on the state (Albertus 2021).

4. I equate land governance with enforcing and allocating property rights: "the social institutions that define or delimit the range or privileges granted to individuals to specific assets" (Libecap 1989, 1). Privileged access to certain assets or resources need not involve the entire 'bundle of property rights;' rather, property rights in this context need only connote the ability to derive benefit from land, not necessarily outfight ownership (Ribot and Peluso 2003).

5. See Platteau (1996) for a noteworthy critique of this view.

When the state provides formal institutions, one might expect more citizens to use them. Citizens often take advantage of services which are offered to them, including conflict resolution services and property rights (Albertus 2021, 105–106). Existing literature corroborates this claim. As the Liberian state expanded after the 1999-2003 civil war, randomly assigning villages to receive police patrols for the first time made citizens more likely to report crimes to the police (Blair, Karim, and Morse 2019). In Burundi, Chaara, Falisse, and Moriceau (2022) document how a legal empowerment program did indeed lead households to take advantage of formal conflict resolution. Outside Africa, informing citizens about the effectiveness of formal courts in Pakistan increases citizens willingness to use them—and decreases citizens' expected usage of informal institutions (Acemoglu et al. 2020). Consequently, I hypothesize that:

H1.a Exposing respondents to information about formal land governance will increase their confidence in formal institutions.

Institutions need not be formal to provide secure property rights. Cattle ranchers in rural California, for example, regulate disputes using well-established norms which align to local conceptions of 'fairness' rather than legal standards (Ellickson 1991). Bates (Bates 1983, 18) likewise documents how customs and norms among the cattle-herding Nuer tribe "provide incentives to curtail those who may seek to take advantage of the absence of strong institutions and capabilities for enforcement."

Customary institutions are "ruling institutions that have power by virtue of their association with the customs that have historically governed a community" (Baldwin 2025, 96). The ahistorical nature of many customary institutions across Africa, which reflect specific constellations of power during the colonial period, rather than abiding historical traditions (Chanock 1991), buttresses this view of institutions as potentially changing social equilibria. While existing literature often equates customary governance in Africa with the figure of the chief, customary institutions exist beyond the chief. The customary institution instantiates the rules, though "individual leaders can uphold, manipulate, and selectively ignore them" (Honig 2022a, 41).[6] In Liberia, for example, village elders often

6. Customary institutions do not necessarily reflect some primordial tradition; many such institutions were shaped under European imperial rule into the forms they assume today (Ranger 1983; Mamdani 1996).

play a significant role in conflict resolution. The palava hut, a special pavilion dedicated to the settling of disputes (or palavas), likewise features prominently.[7] In a detailed report on customary justice across Liberia, Isser, Lubkeman, and N'Tow (2009, 23) note that customary justice in Liberia "resemble[s] a form of nonbinding arbitration, with additional elements of mediation."

The existence of customary institutions alongside state institutions creates a situation where a citizen can chose between multiple institutions to bring a dispute. Citizens consider the effectiveness of the institutions when making their choice, but the choice is not purely political: "individuals' actions are shaped by social institutions, which seek to circumscribe the individuals' actions over sets of issues in an attempt to ensure the community's survival" (Lust 2022, 4). Moreover, customary chiefs can provide many of the services associated with formal property rights: Honig (2022b) documents how informal chiefs in Zambia often produce written deeds. Such deeds may provide security by making land claims legible—regardless of whether the state or a customary authority issued those written titles (Ferree et al. 2023). In Afghanistan, private property is a respected institution, but it is largely governed by customary Islamic institutions. Deeds are countersigned by respected members of local communities, rather than a state body (Murtazashvili and Murtazashvili 2021).

The chiefs which head these customary institutions have an incentive to remain in power. Chiefs receive prestige and sometimes rents from their position.[8] Baldwin, therefore, argues that it is useful to think of chiefs as stationary bandits. Maintaining the authority which underpins their position requires that chiefs remain the forum of choice for dispute resolution: bringing one's dispute to the chief implicitly recognizing the chief's authority to resolve the dispute, in essence 'bootstrapping' the chief's political legitimacy (Lund 2008). Chiefs are also often socially embedded within communities, which makes them vulnerable to social sanctioning for poor performance.[9]

7. The palava hut sounds like the invention of a modern conflict resolution program, but a 1936 travelogue notes "They were all much alike, these [Liberian] villages... in the centre was the palaver-house" (Greene 1936, 86).

8. When presented with a series of specific conflict scenarios, respondents said that it was somewhat or very likely they would have to pay the chief to obtain a judgement 58 percent of the time.

9. This embeddedness also makes chiefs useful as development brokers, who can connect their communities to the state (Baldwin 2016).

These incentives mean that one explanation for the persistence of customary institutions as an equilibrium is that they work well. Citizens may explicitly therefore prefer their customary institutions as a provider of conflict resolution. Plaintiffs often bring their disputes to informal institutions, even when formal institutions are available (Funjika and Honig 2024; Winters and Conroy-Krutz 2021). In Mali, for example, rural citizens believe that customary institutions would be quicker, more fair, and less likely to require payment, compared to formal institutions (Winters and Conroy-Krutz 2021). Expanding legal aid in Burundi led respondents to increase their use of the courts, but had no effect on the extent to which respondents trusted the courts (Chaara, Falisse, and Moriceau 2022). Outside of Africa, Krakowski and Kursani (2024) show similar conclusions in Kosovo: respondents believe that informal dispute resolution is more efficient.

Institutional pluralism can have consequences: disputes may be more likely to escalate into conflicts where different citizens have different bodies of norms on which they can draw, since no common body of 'law' could adjudicate (Eck 2014; Neupert-Wentz 2024). Disputes can fester where citizens cannot agree on the correct institution to resolve disputes. Elsewhere in Africa, non-state armed groups often make use of these lingering disputes, interjecting themselves to garner support among members of the community. On the other hand, Funjika and Honig (2024) show that a greater number of potential forums increases citizens use of *any* dispute resolution forum.

Beyond questions of efficiency or cost effectiveness, customary and formal institutions may also use different sets of norms to resolve conflicts. Berry (2001, 83), for instance, narrates a case in Ghana, where a prominent chief's son sued a farmer for having "cut down trees at the village of Apaasu without asking the chief's permission or paying him tribute." The farmer replied that "he had bought the land at Apaasu from the [chief] and was only exercising his legitimate rights." While the boundaries of the chiefdom ended up deciding this case, each plaintiff made reference to a different set of norms through which they hoped to resolve the conflict. Another example comes from Senegal, where formal land certificates can be revoked if a farmer fails to develop the land within three years. Traditional patterns of landholding have no such stipulations, particularly given the importance of fallowing. If party A left their land uncultivated for several years, and party B moves in to plant crops, then taking the conflict to different institutions would

yield different results. According to traditional usage, party A is within their rights to leave the parcel uncultivated; according to formal law, party A relinquished their claim to the parcel. If citizens disagree about the set of norms or rules that should resolve their dispute, then disputes can escalate into violence (Eck 2014; Neupert-Wentz 2024).

Callen, Weigel, and Yuchtman (2024, 110) note that "[b]eliefs regarding legitimacy play a role in selecting among competing institutions and in sustaining an institutional equilibrium by coordinating actors on the accepted rules of the game." In this sense, beliefs about an institution are a coordinating mechanism: when deciding whether to bring a land dispute to your town chief or a state court, you need to consider not only your own preferences, but your neighbors preferences as well. Bringing their disputes to a forum implicitly acknowledges and reifies its legitimacy to adjudicate disputes (Lund 2008). Because institutions are the mutually agreed-upon 'rules' of the game, citizens have to agree on them. Introducing new institutions may disrupt the pre-existing equilibrium, therefore I hypothesize that:

H1.b Exposing respondents to information about formal land governance will decrease their confidence in customary institutions.

1.2 Ambient legitimacy

Institutions are what citizens make of them. Plaintiffs will use forums they perceive to be legitimate—and the forum is legitimate because plaintiffs use it. Institutional change, therefore, is endogenous to the institutions themselves. How can institutional change occur if it requires deviating from this equilibrium? One answer is to look at the set of circumstances in which it makes sense for citizens to rely on the institution, rather than deviate or defect from it. Greif and Laitin (2004) formalize this insight: "If an institution reinforces itself, more individuals in more situations would find it best to adhere to the behavior associated with it. When self-reinforcing, exogenous changes in the underlying situation that otherwise would have led an institution to change would fail to have this effect."

Changes to the underlying circumstances—here, the rolling out of CLDMCs across Liberia—broadens the set of circumstances in which it makes sense to rely on formal

institutions, creating the potential, but not the certainty, of institutional change. If a handful of particularly motivated individuals take their land dispute to the CLDMC, the chief is weakened, so more people rely on the CLDMC, leading to an eventual shift whereby the CLDMC is the primary institution. Informal institutions providing land governance and conflict resolution is not a self-reinforcing equilibrium. When, for whatever reason, an individual brings a dispute to the formal land governance institution, it directly weakens the informal institution (Lund 2008).[10]

When citizens see other members of their community bringing their disputes to the chief, it reinforces the chief's legitimacy. I refer to this phenomenon as ambient legitimacy—the extent to which others in the community perceive the chief is authoritative or legitimate. If a town chief has high ambient legitimacy, there is no question of using a different institution. Where a town chief has low ambient legitimacy, people may already default to using the CLDMC. Ultimately, citizens cannot know others' true evaluations of the chief. It is possible that all citizens would prefer using a formal institution to resolve disputes, but only continue using the chief because they think others would insist upon it. Nevertheless, seeing other members of the community use the chief is the clearest signal of the chief's authority.

Existing research reinforces the potential for formal land governance to weaken informal institutions. In Peru, Carter (2021) shows that obtaining a collective title erodes the strength of indigenous communities by undermining the community's ability to resolve collective action problems. Likewise, citizens in rural Malawi and Zambia expect neighbors who have formalized their property rights to be less cooperative because of their decreased reliance on collective social institutions (Harris and Honig 2023). In the Democratic Republic of Congo, a randomized land formalization program decreased citizens participation in social institutions and worsened the their evaluation of services provided by chiefs (Balán et al. 2026). That chiefs are, on average, more authoritative when land values are higher is evidence of this dynamic: higher land values lead to more competition for land and therefore a greater reservoir of disputes for chiefs to resolve

10. This process could also operate in reverse. Legislation could weaken the capacity of CLDMCs, leading citizens to bring more disputes to their chiefs, further weakening CLDMCs. Alternatively, Bezares Claderón et al. (2026) show how exposure to violence corrodes trust in both state-led and community-led natural resource governance, in which case the effect would be uncertain.

(Baldwin and Ricart-Huguet 2023). I therefore hypothesize that:

H2.a Informing respondents that CLDMCs have previously resolved conflicts will increase confidence in CLDMCs.

H2.b Informing respondents that CLDMCs have previously resolved conflicts will decrease confidence in customary institutions.

This argument suggests that, once a handful of disputes are brought to the formal institution, the authority of the informal institution will gradually erode. But somebody has to be the first mover. Hypotheses H1.a and H1.b suggest that simply providing formal institutions will entice some citizens to use formal institutions, but some subgroups may require less inducement than others. More authoritative customary institutions may endure better than weaker ones. Some chiefs, in other words, will start off with larger reservoirs of authority which will take commensurately longer to draw down. Chiefs play many different roles: both the scope of these roles and chiefs' effectiveness in fulfilling them is likely to vary quite a bit even in a prescribed geographic area (Wilfahrt and Letsa 2023; Nathan 2023). Both the existence of precolonial institutions and their structure drives variation in the strength of contemporary chiefs—different structures of precolonial authority produce heterogeneous effects on contemporary outcomes such as conflict or economic growth (Wilfahrt 2026). A clear illustration of this dynamic comes from Sierra Leone, where the British codification of "tribal authorities" created a limited pool of nobles from which a chief could be elected. Where this selectorate is smaller, candidates to become the paramount chief have fewer interests to negotiate, and consequently less political constraints. These unconstrained chiefs are better able to manipulate access to land; meanwhile, economic outcomes are largely worse among their constituents (Acemoglu, Reed, and Robinson 2014).

The perceived authority of is likely to differ within villages, not just between villages. Wilfahrt and Letso document extensive within village variation in the extent to which citizens perceive their chiefs as authoritative (Wilfahrt and Letsa 2023): different citizens can have different evaluations of the effectiveness of authority of the same chief. Authority may also differ by subject area. Citizens may be more likely to comply with the chief in substantive areas where the chief has expertise or in the same geographic scope as the

leader's authority (Baldwin, Kao, and Lust 2025). A chief who is effective when organizing a traditional celebration may be ineffective when resolving disputes or brokering votes, and vice versa. Citizens who perceive their chief to be more authoritative will be more likely to bring their disputes to the chief. Consequently, I hypothesize that

H3 Receiving either treatment will produce weaker effects among respondents who perceive their chiefs to be more authoritative.

Status within local communities may also affect the extent to which citizens are open to bringing disputes to CLDMCs. Customary land governance often reflects complex social relationships—the weakening of these relationships will likely be to the detriment of some and the gain of others (Honig 2022a). For example, collapsing complex webs of social relationship which govern at times overlapping usages of land into an exclusive title will exclude groups—often women or the landless—who have some claim to *use* the land but no claim to *own* the land (Meinzen-Dick and Mwangi 2009). In Côte d'Ivoire, town chiefs capture land tenure committees to exclude members of ethnic outgroups, decreasing the trust placed in titles by members of the outgroup (Ribar 2026). In Liberia, randomly assigned patrols by the Liberia national police were most likely to increase willingness to report crimes to the police among respondents excluded from the secret societies which are cornerstones of rural Liberian life (Blair, Karim, and Morse 2019). More broadly, rising land values and the cultivation of cash crops are associated with higher levels of ethnic politicization, as local elites leverage ethnic differentiation as a strategy to consolidate their access to land while excluding outgroups (Pengl, Roessler, and Rueda 2022).

If patterns of local authority lead some subgroups to be excluded, one might expect those subgroups to be more willing to convert to formal land governance. In a survey experiment in Burundi, for example, Chazottes and Nabieu (2025) show that male respondents and respondents in higher income groups were more willing to sanction their customary chiefs for expropriating funds from an NGO, illustrating how demographic characteristics affect subservience to the chief. More broadly, citizens often think that customary justice systems are "less egalitarian than state court systems in their treatment of disputants, with potential biases against women, ethnic minorities, and other

less powerful community members" (Baldwin 2025, 106). It follows that citizens will be more likely to opt out of informal governance if they perceive this governance to be biased against them. To broadly capture these different but local patterns of exclusion, I hypothesize that:

H4 The effect of receiving the CLDMC treatments will be weaker among respondents with higher status in local customary institutions.

Lastly, citizens with differing levels of exposure to formal land governance may have different responses to the introduction of formal land governance. Some respondents may not have heard of CLDMCs; others may be familiar with the concept; others may have CLDMCs already operating within their villages. One would expect the introduction of CLDMCs to have a weaker effect among respondents who know about or have experience with CLDMCs. These respondents have more strongly formed prior beliefs about CLDMCs, and so a brief vignette is less likely to shift their views. I test for these effects, but I note that these hetreogenous effects tell a story more about my experiment than about institutional change itself.

2 Empirical setting: land governance in Liberia

The Liberian government's choice to expand CLDMCs forms a 'critical juncture:' a period in which meaningful shifts to institutional equilibria are possible, but not guaranteed (Callen, Weigel, and Yuchtman 2024). In neighboring Côte d'Ivoire, for example, a 1998 land law required all parcels to be registered within three years or risk being escheated to the state, heralding a potential nationwide shift to formal land governance. Uptake, however, remained low and the state did not follow through on these legal threats, leading to a largely unchanged status quo (Boone et al. 2021). In contrast, a major push to formalize land in Rwanda led to approximately eleven million parcels being registered between 2011 and 2023 (Deininger and Goyal 2024). It remains to be seen whether CLDMCs will become widely adopted across Liberia. However, fielding this survey during a period of potential institutional change provides a rare window into a 'critical juncture.'

Land governance has a complicated history in Liberia. Until 1964, the hinterlands portion of Liberia more than 40 miles from the Atlantic Ocean was formally governed by a hierarchy of customary authorities, including town chiefs, clan chiefs, and (higher still) paramount chiefs (Wily 2007). In the coastal areas, the Liberian state promulgated a private property regime, although low state capacity means that land governance generally remains in the hands of customary authorities. Tensions over land helped fuel the first (1989-1997) and second (1999-2003) Liberian civil wars: indigenous Liberians felt that the coastal elite weakened the security of their property rights, a sentiment further reinforced by large-scale land inequality. The resulting conflicts further weakened the Liberian state's ability to provide conflict resolution and land governance.

Absent the state, various informal forums exist across Liberia to provide justice and adjudicate land disputes. Isser, Lubkeman, and N'Tow (2009, 23) note that "The lack of capacity and, to a large extent, the deficit in credibility of the formal court system at the local level throughout Liberia means that the most relevant justice institutions for the vast majority of the country's population are customary ones." Customary institutions are not monoliths: cases may be heard by town chiefs, a more senior chief, or a council of elders. In cases involving witchcraft, local 'secret societies' (called Sande or Poro) usually adjudicate. Unlike the legal system, the norms governing informal justice in Liberia tend to emphasize reconciliation through redress or cooperation. Social pressure, rather than form courts, enforces decisions reached by the customary justice institution.[11]

Within this context, the 2018 Land Rights Act (LRA) aimed to increase the availability of formal dispute resolution by standing up CLDMCs across the country. CLDMCs are multi-purpose entities. CLDMCs also formalize local land governance. Standing up a CLDMC is a multi-step process, in which CLDMC members are elected, land and resource bylaws are established during a series of general community meetings, and the CLDMC drafts articles of incorporation. CLDMCs must also pursue a boundary harmonization to identify the community's precise boundaries in collaboration with its neighbors. Communities with CLDMCs can also register for a community statutory

11. Of course, customary source of conflict resolution are not always effective. Customary institutions are often rooted within communities, which constrains their ability to adjudicate disputes which arise between different communities. The war may also have decreased the legitimacy of customary authorities (Isser, Lubkemann, and N'Tow 2009, 37).

deed, granting the community unambiguous title to its land. CLDMCs can both issue new tribal certificates and are required to validate all pre-existing tribal certificates.[12]

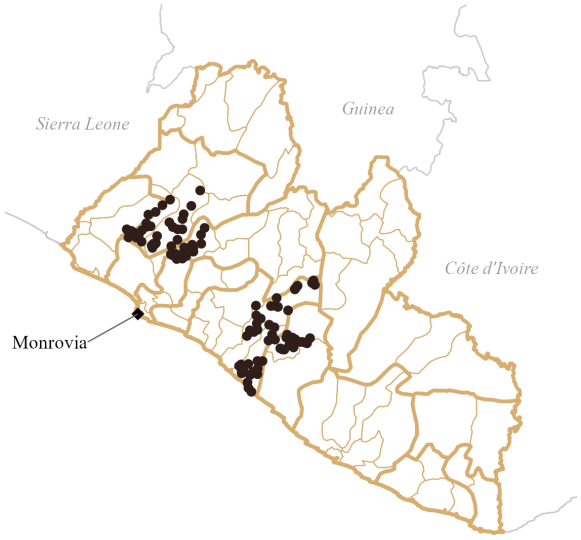
Chiefs are ex officio members of the CLDMC. Chiefs, however, become one vote among many in the CLDMC, as opposed to being the sole decider, as is generally the case under customary land governance. Standing up a CLDMC transfers control over land governance from an informal authority—the chief—to a formal authority. Article 36 of the LRA states that CLDMCs are authorized to approve the sale, lease or transfer of land, as well as to "decide any matters relating to the Community's Customary Land consistent with the provisions of the bylaws of CLDMC [sic]." It also clarifies the membership of the CLDMC, which "shall consist of equal representation of the following three stakeholders' groups: men, women and youths. Except for chiefs of the Community who shall be ex-officio members of the CLDMC, the representatives of the three stakeholder groups shall be democratically elected." In other words, CLDMCs are empowered to administer land and adjudicate disputes. In addition, codifying customs land tenure into a series of by-laws removes the chief's ability to exercise discretion, removing another source of leverage or rent seeking.

12. As of 2019, approximately 17 percent of landholding households in Liberia possessed a tribal certificate or other document for at least one parcel of land (Ribar 2026).

3 Empirical strategy

3.1 Sampling and survey design

Figure 1. Location of surveyed villages within Liberia



This figure shows the location of the 121 surveyed villages within the six districts of Liberia where I implemented the field survey.

To test how introducing formal land governance affects informal institutions, this paper embeds a series of experiments field survey of 1,325 households across 121 villages in rural Liberia. I surveyed respondents across six districts: Bopolu and Gbarma districts (Gbarpolu County), Districts 3 and 4 (Grand Bassa County), Fuamah district (Bong County), and Jo River district (Rivercess County). Figure 1 shows the location of these villages.

I used a multi-step sampling process to ensure adequate variation in the baseline ambient legitimacy of customary institutions, specifically when it comes to property rights. I first selected only to the districts which the historic 40 mile inland line bisected (Christensen, Hartman, and Samii 2021; Mitman 2021). I then identified two clusters with different levels of local 'jurisdictional hierarchy,' as measured by Murdock's ethnographic

atlas (Murdock 1967, 160). This variable captures "[t]he number of jurisdictional levels in the local community."[13]. Within each cluster, I then randomly selected one district. I then randomly selected two more districts from those adjoining the initial district. I then divided the six districts into two strata each, resulting in eleven strata, because the entirety of District 4 lay within 40 miles of the coast. Using the 2008 Liberian census as a sampling frame, I then randomly selected villages within each strata.[14] Once enumerators arrived at the village, we selected households using a random walk. After selecting households, enumerators solicited informed consent script from all respondents before administering the survey.

3.2 Experimental design

This paper shows results from two parallel survey experiments embedded into the field survey described above. The first survey experiment presented respondents with information about CLDMCs (the treatment condition) or about informal land governance (the control condition). Table 1 enumerates these treatment conditions.

After respondents received either the vignette treatment, I asked respondents a series of questions. First, I asked "If somebody in your village had a dispute with a neighbor, to whom would they take their dispute?" Answer choices included town chiefs, senior chiefs (clan chiefs or paramount chiefs), village elders, courts, the CLDMC, and other. Next I ask "[h]ow confident are you in the town chief's ability to resolve conflicts within the community?" and "[h]ow confident are you in the CLDMC's ability to resolve conflicts within the community?" Answer choices included (1) not at all confident, (2) just a little confident, (3) partially confident, and (4) very confident.

Responding in the abstract, however, may not fully capture shifts in attitudes towards these institutions. People also tend to respond to survey questions differently in the abstract as opposed to when presented with more concrete scenarios (Westwood et

13. This variable is different from the 'Jurisdictional Hierarchy Beyond Local Community' variable more commonly used in studies of the long-term effects of customary institutions (Neupert-Wentz and Müller-Crepon 2024).

14. The 2008 census is the most recent available sampling frame for Liberian villages. Appendix A overviews the sampling plan in greater detail.

Table 1. Treatment and control conditions for the vignette experiment

Treatment vignette	Control vignette
Under Liberia's 2018 Land Rights Act, communities should form a Community Land Development and Management Committee (CLDMC). This committee is legally recognized by the government. It is necessary to form a CLDMC before obtaining a community land deed.	In many communities in Liberia, people come together to discuss local development needs. Community members may form committees or working groups to help plan activities such as improving roads, organizing clean-up days, or managing shared community spaces.
The committee has the authority to manage community land, address land-related disputes, and make decisions about land use according to the law. When land disputes arise, the committee has the legal authority to hear cases and make decisions that must follow the law. These decisions are valid even when there are disagreements based on customary practice. The CLDMC's decisions are recognized under Liberian law and can be enforced through formal channels.	These groups usually meet to share ideas, discuss priorities, and coordinate efforts among community members. Participation is voluntary, and people take part in different ways depending on their interests and availability.

al. 2022). Moreover, the extent to which citizens think that customary or formal institutions could resolve a conflict will likely depend on the specific scenario. To overcome these measurement challenges, I also presented respondents with a series of hypothetical scenarios. The first three scenarios present a simple one-stage narrative:

- Two families in the same community disagree about the boundary between their farmland. Both families say the land belongs to them, and each points to different markers that were placed many years ago. The disagreement has caused tension between the families, but no violence.
- After a man passes away, his relatives and his wife disagree about who should

control the farmland he used during his lifetime. Some community members say the land should go to the man's family, while others say the wife should continue using it.

- A section of land that has long been used by the community for gathering firewood is now being farmed by one household, who says they were given permission years ago. Other community members say the land should remain for community use.

After each scenarios, I ask the following questions: (1) If people brought this conflict to the CLDMC, how likely do you think it is that the CLDMC would be able to resolve it peacefully? (five point likert from very unlikely to very likely); (2) If people brought this conflict to the town chief, how likely do you think it is that the town chief would be able to resolve it peacefully? (five point likert from very unlikely to very likely); and (3) How likely do you think it is that the parties to this dispute would have to pay the town chief in order to obtain a judgement? (five point likert from very unlikely to very likely).

Beyond the introduction of formal land governance, it is also important to understand what happens once the ambient legitimacy of customary institutions begins to erode. To test how respondents react to other citizens bringing their disputes to CLDMCs, I embed the second experiment into two additional scenarios. These scenarios randomize whether they mention CLDMCs having previously resolved an unrelated conflict int the community. Table 2 presents these treatments

One empirical caveat, however, is that much of the existing literature treats forum-shopping as a horizontal phenomenon: citizens choose either to go to the state or to their informal institution. Consequently, many empirical designs test respondents' opinions towards customary authorities *or* the state (Winters and Conroy-Krutz 2021; Bezares Calderón et al. 2026). Henn (2023), for example, argues that whether customary authorities are integrated into state institutions affects the extent to which the customary authorities compete with the state for influence. In practice, formal and informal institutions in Liberia function within an appellate framework: citizens always go to the state first, and then decide where to appeal a dispute. It could well be the case that introducing formal property rights leads citizens to appeal their chiefs' decisions to state

Table 2. Treatment groups for the two-stage experiment

Scenario 1 (boundary dispute)		**Scenario 2 (inheritance dispute)**	
A group of young men clears a piece of land they say was unused in order to farm it. Another family later says the land belongs to them and that it should not have been cleared without permission.		A person who left the community during the civil war returns and says that a piece of farmland belongs to their family. Another household has been using that land for many years and says it now belongs to them.	
Treatment (50%): The families bring the disagreement to the Community Land Development and Management Committee. The committee meets, reviews the case, and makes a decision. The decision is announced to the community, and the matter is considered settled.	**Control (50%):** The families bring the disagreement to the chief and elders, who hear both sides and make a decision. The decision is announced to the community, and the matter is considered settled.	**Treatment (50%):** The families bring the disagreement to the Community Land Development and Management Committee. The committee meets, reviews the case, and makes a decision. The decision is announced to the community, and the matter is considered settled.	**Control (50%):** The families bring the disagreement to the chief and elders, who hear both sides and make a decision. The decision is announced to the community, and the matter is considered settled.
Some time later, a different disagreement arises in the same community. One family allows some newcomers to clear land for a farm. However, another family says that the newcomers were settled on land they own.		Some time later, a man's children from different marriages disagree over who should control a piece of family farmland.	

institutions, where they previously would have appealed only to more senior chiefs.[15] In this case, measuring only the initial choice of forum would underestimate the behavioral changes wrought by the shifting institutions. To overcome this measurement challenge, after each dispute I ask respondents (1) What forum would the parties to this dispute go to in order to resolve the dispute? (2) If the parties disagreed about the outcome, would they go to a different organization? and, if so, (3) What different organization would the parties go to if the initial forum didn't resolve the issue? These questions use the same set of institutions as the above questions.

15. When I presented respondents with a conflict scenario, 66 percent of the time, respondents said they would first take a dispute to the town chief. Of these respondents, 98 percent said they would appeal the chief's decision if they weren't happy.

Beyond the effect of the treatment itself, I also want to understand how treatment effects differ across different subgroups. Hypothesis H3 suggests that the effect of receiving the treatment vignette describing formal land governance will be weaker among respondents who perceive their local chief to be more authoritative. To measure the perceived authority of chiefs, we ask respondents to "[i]magine that your town chief asked people to participate in these activities. For each of these activities, I would like you to tell me how much of the village you think would do what the chief asked them to do: (1) participate in cleaning the village; (2) give up a piece of land for a school; (3) give up a piece of land for a church; (4) spend a day repairing a road; (5) spend a day planting trees; (6) attend a village ritual; or (7) contribute money to a village festival." Answer choices for each included nobody, very few people, some people, most people, or everybody. I then derive indices of chiefly authority using both the first and second principal component of this index. The first principal component here captures the chief's overall authority: the loadings are positive for all of these variables. The second principal component captures the extent to which the chief's authority is exclusive to customary areas, such as attending a ritual or contributing to a festival.[16]

Hypothesis H4 suggests that respondents who are socially proximate to the chief would be less responsive to the treatments. We measure social proximity in two ways. First, we directly ask respondents "What is your relationship to the chief?" Answer choices included no relationship, chief is an extended family member, and chief is an immediate family member. I estimate marginal effects separately for each of these levels. Second, following Bezares Calderòn et al. (2026), I measure the distance between the respondents' household, where the survey was conducted, and the geographic centroid of the village. This measure reflects historical settlement patterns, in which the initial lineage of a village plans a ring of field surrounding the village's households, and later arrivals live and farm outside of that radius. Respondents who live further from the village center are more likely to belong to ethnic outgroups.[17]

16. Ribar (2026, 413) also makes this distinction between chiefs' "political authority" and chiefs' "authority in a more traditional sphere."

17. However, 215 observations are missing household GPS coordinates. This missingness is likely to be correlated with other important variables, such as terrain ruggedness or distance to Monrovia. I therefore prefer the self-reported measure of proximity to chiefs, but report both, per the PAP.

3.3 Estimation strategy

My estimand is the average treatment effect (ATE) of receiving treatment. I use a series of OLS regressions with district fixed effects to estimate this ATE.[18] I pre-registered all analyses; an anonymous pre-registration plan (PAP) is available from the Open Science Foundation.

I display un-adjusted results (equivalent to a differences of means) as well as results using a series of demographic and village-level control variables. When using regression adjustment, I demean control variables and interact them with the treatment indicator, following Lin (2013). As per the PAP, Table 3 also includes a specification with enumerator fixed effects, though these enumerator effects do not drive a meaningful fraction of the variation. Demographic control variables include the respondent's sex, their position in the household (household head or spouse), household wealth,[19] respondent's level of education, their English proficiency, and their ethnicity. Geographic control variables include road density, cocoa suitability, coffee suitability, distance to the county capital, and terrain ruggedness; geographic control variables are calculated using a 25 kilometer radius from the village centroid where applicable.

To obtain the average treatment effect (ATE) of receiving the treatment vignette, I estimate a series of equations of the following form:

$$y_i = \beta_1 \text{Treat} + \beta_2(X_i - \bar{X}) + \beta_3 \text{Treat} \cdot (X_i - \bar{X}) + \psi_d + \varepsilon$$

where Treat denotes a binary indicator for whether the respondent received the treatment condition, X denotes a vector of control variables, $\bar{X}$ denotes the mean value of these control variables, ψ denotes district fixed effects, and observations are indexed by i for respondent and d for district. Our outcome of interest for this equation is β_1, which equates to the ATE. For transparency, I present both overall results (i.e. pooled across

18. District fixed effects are appropriate because we want to compare villages with more or less authoritative chiefs. Some fraction of the perceived authority of chiefs will come from individual respondents and some fraction will come from village level variation. Village fixed effects would absorb the latter variation.

19. I calculate household wealth by asking if they own any of the following: a refrigerator, a gas stove, a television, a computer, a bicycle, a motorbike, a car, a cell phone, or a smart phone. I include the first and second principal components of the resulting matrix as wealth indices.

scenarios) and scenario specific results.

Appendix tables A2 shows that treatment and control groups are reasonably well-balanced. A joint F-test of the treatment indicators on the control variables variables fails to reject the null hypothesis of balance for both the vignette treatment ($F = 0.876$, $p = 0.6409$) and the two-stage treatment ($F = 1.2661$, $p = 0.1699$).

This study is adequately powered to detect its treatment effects. Power calculations in the PAP show a minimum detectable effect (MDE) of 0.14 to 0.15 standard deviations of the outcome variable, depending on the level of intra-cluster correlation. These are worst-case scenarios: controlling for additional covariates and adding district fixed effects will absorb residual variation and increase power. The MDEs are strictly smaller for the questions following the scenarios, because each respondent sees multiple scenarios.

4 Results

Table 3 shows that learning about CLDMCs does not reduce confidence in their customary authority. These are results are in line with hypothesis H1.a but inconsistent with hypothesis H1.b: simply learning about CLDMCs is not sufficient to shift the equilibrium choice of institutions. Table 3 does show that learning more about CLDMCs increases respondents' confidence in the CLDMCs' capacity to resolve conflict by 0.19 to 0.21 standard deviations. Together, these results suggest that learning more about formal land governance does indeed increase respondents' confidence in CLDMCs, though the effect on customary governance appears less certain.

Table 3 shows that receiving information about CLDMCs makes respondents less likely to bring a dispute to a chief. Receiving the treatment vignette is associated with a 0.031 to 0.034 percentage point reduction in the likelihood respondents say they would bring a dispute to the chief, equivalent to a 0.18 standard deviation decrease. There was no commensurate increase in the likelihood a respondent says they would bring disputes to the CLDMC. While statistically significant, this estimate is substantively quite small. In the treatment group, 94 percent of respondents said they would bring a dispute to the chief, as opposed to 97 percent in the control group.

Next, figure 2 shows the effect of receiving the vignette treatment on responses to the

Table 3. Receiving information about CLDMCs shifts respondents's trust towards CLDMCs and away from chiefs

	(1)	(2)	(3)	(4)	(5)
Would bring a dispute to the chief					
Treated	-0.031**	-0.034**	-0.032**	-0.033**	-0.028*
	(0.011)	(0.011)	(0.011)	(0.012)	(0.012)
Num.Obs.	1325	1325	1319	1263	1263
R2	0.006	0.021	0.064	0.073	0.125
Would bring a dispute to the CLDMC					
Treated	0.009	0.011	0.009	0.008	0.004
	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)
Num.Obs.	1325	1325	1319	1263	1263
R2	0.001	0.016	0.086	0.106	0.159
Confidence in the chief's ability to resolve disputes					
Treated	0.025	0.021	0.035	0.032	0.048
	(0.037)	(0.037)	(0.037)	(0.038)	(0.037)
Num.Obs.	1324	1324	1318	1262	1262
R2	0.000	0.019	0.062	0.070	0.134
Confidence in the CLDMC's ability to resolve disputes					
Treated	0.219***	0.222***	0.232***	0.227***	0.274***
	(0.061)	(0.061)	(0.060)	(0.061)	(0.054)
Num.Obs.	1311	1311	1305	1250	1250
R2	0.010	0.016	0.077	0.106	0.315
District FEs		X	X	X	X
Demographic controls			X	X	X
Geographic controls				X	X
Enumerator FEs					X

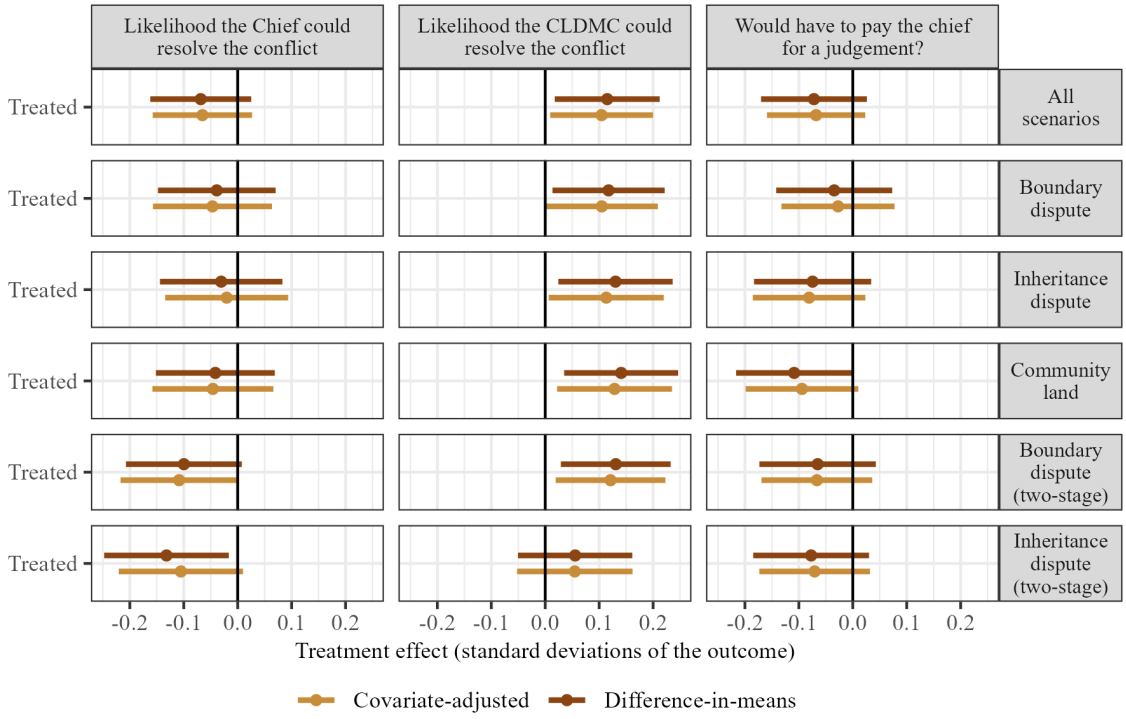
Note: The outcome variable for row one is whether the respondent answered 'if somebody in your village had a dispute with a neighbor, to whom would they take their dispute?' by mentioning customary authorities. The outcome variable for row two is whether the respondent mentioned a formal authority in their response to the above question. The outcome variable for row three is the respondents' answer to 'how confident are you in the village chief's ability to resolve conflicts within the community?' The outcome variable for row four is the respondents' answer to ' How confident are you in the CLDMCs ability to resolve conflicts within the community?' The treatment indicates whether the respondent received the vignette describing the role of a CLDMC. Demographic variables include sex, respondents' position in the household, wealth, age group, education, English proficiency, and ethnicity; geographic controls include road density, cocoa suitability, coffee suitability, distance to the county capital, and terrain ruggedness (calculated within 25 kilometer radii of the village centroids, where applicable). All control variables are demeaned and interacted with treatment (Lin 2013). Regressions use OLS with HC1-robust standard errors.

five hypothetical scenarios. Responses are reasonably consistent across all five scenarios, so I focus here on the pooled estimates.[20] Contrary to H1.b, the treatment has no effect on the likelihood that the chief could resolve the conflict. However, similar to the results in table 3, we see a consistent and statistically significant effect on the perceived likelihood that the CLDMC could resolve the conflict. Across all five scenarios, being presented with information about formal land governance resulted in a 0.14 to 0.16 percentage point increase in the CLDMC's perceived ability to resolve the conflict, equivalent to a 0.10 to 0.11 standard deviation increase. This effect is consistent with H1.a. The treatment produces no effect on the perceived likelihood that the chief would be able to extract rents to resolve the problem.

Learning more about formal land governance increases confidence in CLDMCs—but did not produce a commensurate decrease in the perceived ability of chiefs to resolve conflicts. Results from this vignette experiment—which randomly assigned respondents to learn more about CLDMCs—shows that learning about CLDMCs increases confidence in formal land governance without producing a commensurate decrease in chiefs' perceived ability to resolve conflicts. The treatment did result in a three percentage point decrease in respondents' willingness to bring a dispute to the chief. However, this decrease only moves the fraction of respondents who say they would take a dispute to the chief from 97 percent in the control group to 94 percent in the treatment group—a statistically significant but substantively quite small effect.

20. The pooled estimates also include scenario fixed effects.

Figure 2. Receiving information about formal land governance makes respondents trust CLDMCs more

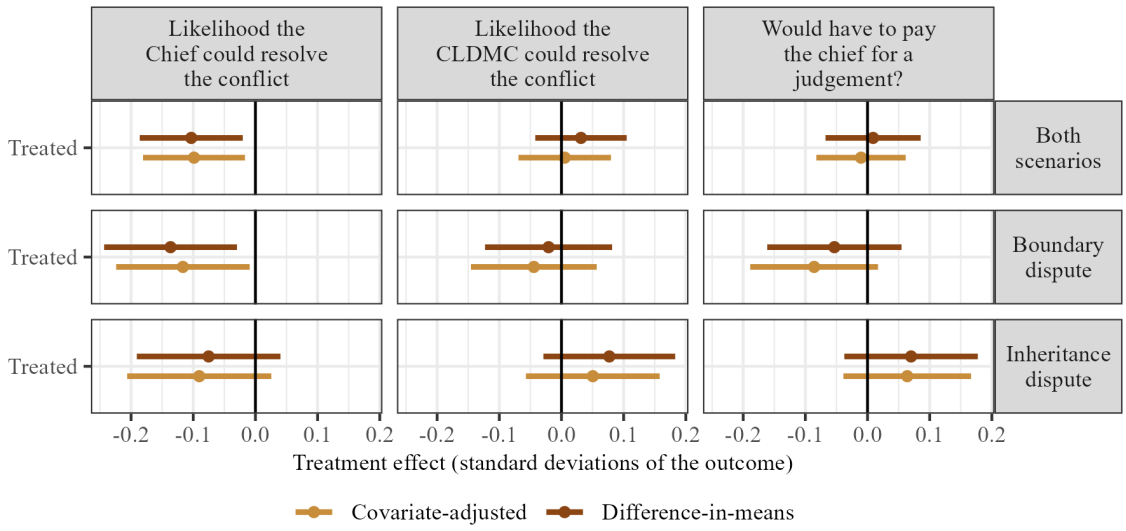


This figure shows point estimates and 95 percent confidence intervals for the effect of receiving the vignette describing CLDMCs on respondents' answers to the five scenarios presented above. Tables B1 and B2 show regression coefficients for this figure. All regressions use OLS; covariate adjusted regressions use district fixed effects and demographic and geographic controls, all of which are demeaned and interacted with treatment. Robust standard errors are clustered at the respondent level.

Next, figure 3 shows the result of the two-stage survey experiment, which randomly varied whether a CLDMC had previously resolved an unrelated dispute when presenting the conflict scenarios to respondents. When a CLDMC had previously resolved a conflict in a community, respondents were 0.10 standard deviations less likely to think that a chief could resolve an unrelated conflict conflict. This effect is statistically significant only for the boundary dispute scenario. However, appendix C documents a spillover effect between these scenarios: during the inheritance dispute scenario (which followed the boundary dispute scenario), respondents were approximately 0.18 standard devia-

tions less likely to say the chief could resolve the conflict—but only if the CLDMC also resolved an unrelated conflict during the boundary dispute scenario. This spillover, while not pre-registered, is broadly supportive of the ambient legitimacy mechanism: once respondents hear about a CLDMC resolving a dispute, the chief's authority is weakened in future scenarios. The CLDMC weakened the chiefs' ability to resolve the conflict, but importantly the decrease in confidence in chiefs was not accompanied by an increase in confidence in CLDMCs—the effect was purely corrosive. There was also no effect on the perceived likelihood that the chief would be able to extract a payment for their conflict resolution services. These results are consistent with H.2b but not with H.2a.[21]

Figure 3. CLDMCs having resolved previous conflicts weakens the chief's authority



This figure shows point estimates and 95 percent confidence intervals for the effect of the scenario-specific treatment, where CLDMCs previously resolved an unrelated conflict in the community. Table B3 displays regression coefficients for this figure. All regressions use OLS; covariate adjusted regressions use district fixed effects and demographic and geographic controls, all of which are demeaned and interacted with treatment. Robust standard errors are clustered at the respondent level.

These results are broadly in line with the predictions of my broader argument: introducing CLDMCs increases trust in the CLDMCs themselves, but does not yet erode

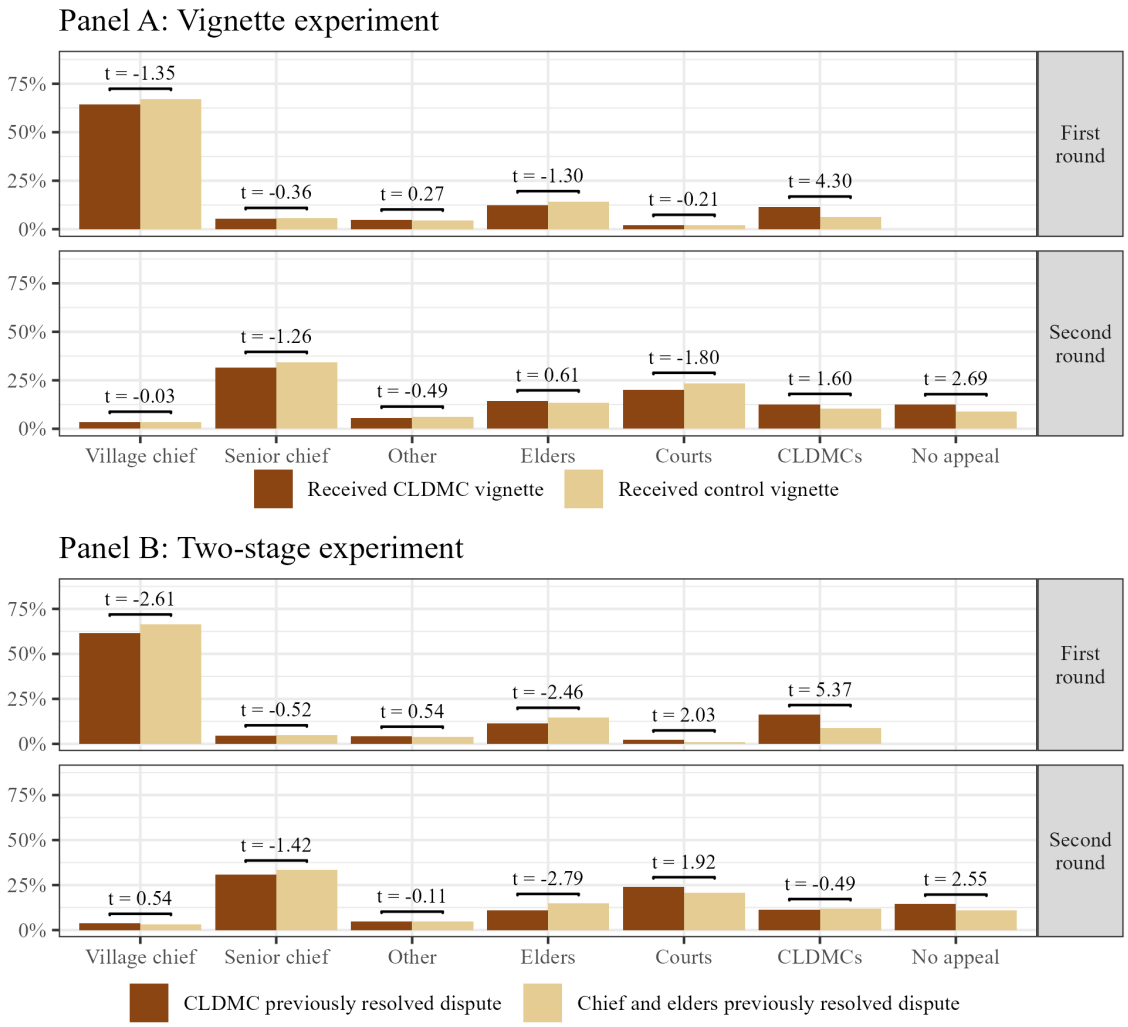
21. Appendix C shows there is no interaction effect between the two experimental treatments.

the extent to which respondents trust CLDMCs. The treatment did result in a slight decrease in respondents' willingness to bring some unspecified dispute to the chief, from 97 percent of respondents in the control group saying they would bring a dispute to only 94 percent of respondents in the treatment group. These results are substantively small, but consistent with a story in which a handful of 'first movers' with high propensity to use formal institutions begin the process of eroding the ambient legitimacy of customary institutions. Asking respondents about more specific scenarios produces similar results. In contrast, informing respondents thyat CLDMCs have previously resolved conflicts decreases respondents' trust that they would be able to resolve that specific conflict.

However, as mentioned above, the structure of forum shopping in Liberia—in which respondents bring almost all disputes to the chief and then vary where they decide to appeal—complicates this measurement. After each scenarios, I therefore ask respondents (1) where they would bring the dispute to be resolved, (2) whether they would appeal the dispute, and (3) if so, to where they would appeal. Figure 4 shows the breakdown of these responses for each treatment group.

Before considering the effects of treatment, this figure clearly shows evidence for forum-shopping in Liberia as a vertical, rather than horizontal process. Across all treatment conditions, respondents first brought their disputes to the town chief between 64 and 67 percent of the time. However, the results show considerably more heterogeneity within the second stage of dispute resolution. Disputes going beyond a single forum appears common: respondents said that these parties would escalate the disputes in 89.4 percent of cases.

Figure 4. Hypothetical disputes which start with town chiefs end with formal institutions and senior chiefs



This figure shows responses to the questions 'What forum would the parties to this dispute go to in order to resolve the dispute?' and 'What different organization would the parties go to if the initial forum didn't resolve the issue?' T-scores are calculated using a series of linear probability models where the outcome is a binary indicator for having chosen the institution and standard errors are clustered at the respondent level.

These analyses demonstrate a clear effect for the vignette experiment. Respondents who received the control vignette indicated that the parties would go to the town chief

for the first round of judgement 67.1 percent of the time. Respondents who received the treatment vignette indicated that the parties would start at the town chief 64.2 percent of the time—a statistically insignificant distinction ($t = 1.35$). In the control group, 6.4 percent of respondents in the control group initially brought their dispute to the CLDMC, as opposed to 12.6 percent of the treatment group. In other words, respondents were almost twice as likely to say they would bring a specific dispute to the CLDMC after listening to the treatment vignettes.

Responses were much more heterogeneous when I asked respondents where they would appeal this dispute. Senior chiefs, rather than town chiefs, are the modal response here: respondents in the control group said they would appeal 34.3 percent of disputes to a more senior chief, as opposed to 31.5 percent of disputes among respondents who received the CLDMC vignette. Interestingly, respondents in the treatment group were much more likely to say they would not appeal the initial decision (12.5 percent, as opposed to 8.8 percent in the control group). This result is likely because respondents who take their disputes to formal institutions such as CLDMCs or courts are less likely to subsequently appeal.

Figure 4 also shows how these responses differ based on whether a CLDMC previously resolved an unrelated dispute. When chiefs or elders resolved the previous conflict, respondents brought 66.5 percent of conflicts to the town chief; when a CLDMC resolve the previous conflict, respondents brought only 61.4 percent of conflicts to the town chiefs. Treated respondents were also less likely to bring disputes to the village elders in the first round (14.7 percent versus 11.4 percent). In contrast respondents who received the 'CLDMC previously resolved disputes' treatment were almost *twice* as likely to bring a dispute to the CLDMC (16.2 versus 8.8 percent). Treated respondents were also more likely to first bring the dispute to the court. As before, treated respondents were also much less likely to appeal their dispute: respondents said they would not appeal in 14.4 percent of disputes where the CLDMC resolved the previous dispute, as opposed to 10.9 percent of cases where chiefs or elders resolved the previous dispute.

These disputes illustrate how taking the dispute to a formal institution, rather than a customary institution such as the town chief or village elders, is a one way street. Where respondents indicated that the parties would first take their disputes to the town chief,

they indicated that they would then appeal the dispute to senior chiefs (39 percent), village elders (20 percent), courts (19 percent), or CLDMCs (15 percent). Where respondents indicated that the parties would first take their dispute to the CLDMC, the respondents later indicated that the respondents would either go to the courts or not appeal the dispute at all.

At the end of all of these questions, I also asked respondents "When a community forms a CLDMC, do you think the authority of a chief increases or decreases?" 50 percent said the chiefs authority somewhat or strongly decreases, 19 percent said the chiefs' authority neither increased nor decreased, and 30 percent said that the chiefs' authority would increase. Respondents who received the CLDMC vignette were 0.11 to 0.12 standard deviations more likely to say that a CLDMC would decrease the chief's authority. The two-stage treatment did not affect answers to this question. This finding is broadly consistent with the overall story: CLDMCs erode the authority of chiefs.[22]

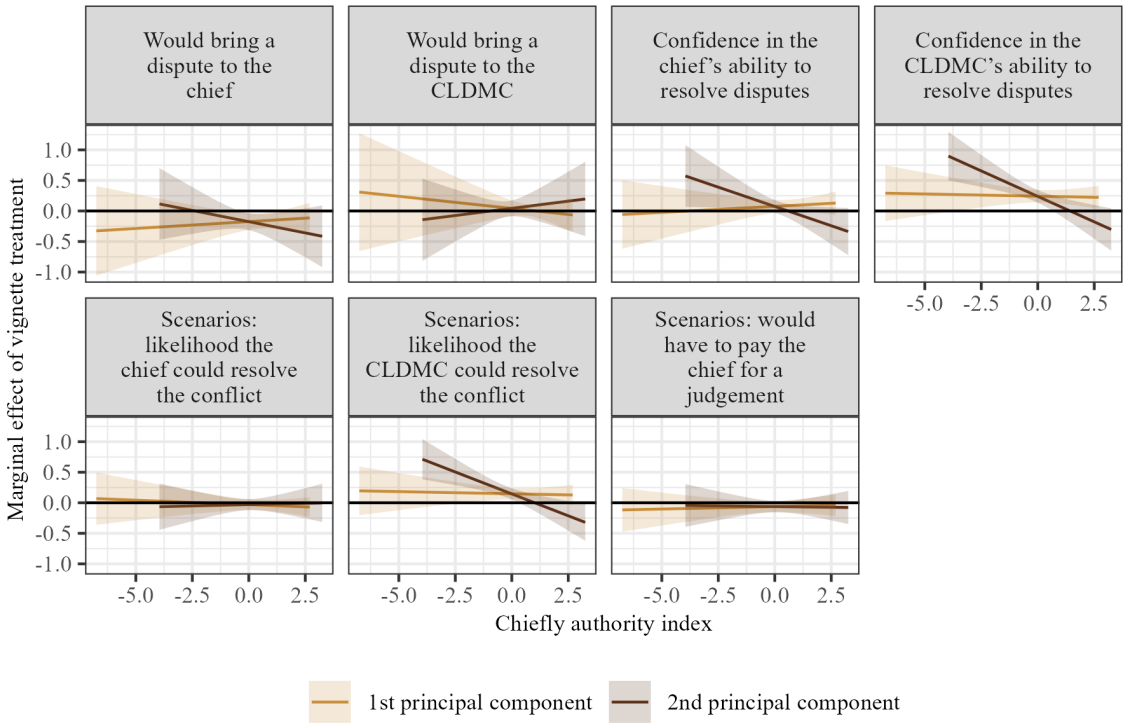
5 Subgroup effects

These results show other members of a community bringing disputes to a CLDMC is what erodes the authority of chiefs—not just CLDMCs arriving in a community. However, somebody needs to be the first to rely on the CLDMCs. In this section, I explore what factors increase respondents' propensity to switch to CLDMCs.

Are respondents who perceive their town chiefs to be weaker more willing to switch to formal institutions? If this were the case, then we would expect the marginal effect of receiving treatment to be larger among respondents at the low end of the chiefly authority index. I include the first two principal components of this scale: the first principal component captures the chiefs overall authority, whereas the second component captures the extent to which the chief's authority is concentrated in customary tasks such as compelling attendance to a village ritual. Figure 5 shows no heterogeneous treatment effects by the first principal component of chiefly authority: regardless of how authoritative one perceives one's chief, there is no difference in the effect of receiving the vignette

22. I analyze this question seperately because it was asked at the end of the relevant survey module, as opposed to the questions used to make table 3 which were asked immediately after the vignette treatment.

Figure 5. Heterogenous treatment effects by the authority of chiefs



This figure shows the marginal effect of the vignette treatment variable on attitudes toward conflict resolutions and pooled responses to the five scenarios, broken out by the first and second principal components of the chiefly authority index. All regressions use OLS with district fixed effects, along with demographic and geographic control variables (demeaned and interacted with treatment). Standard errors are robust or clustered at the respondent level (pooled responses to the scenarios).

treatment.

The effect of the vignette treatment on confidence in the CLDMC was greater among respondents who perceive their chiefs' authority to be limited to the customary sphere. Among respondents at the 25th percentile of the customary chiefly authority index, receiving the vignette treatment is associated with a 0.36 standard deviation increase in responses to "How confident are you in the CLDMCs ability to resolve conflicts within the community?' Among respondents at the 75th percentile, in contrast, receiving the vignette treatment did not produce a statistically significant effect on trust in the CLDMC.

Trust in the CLDMC's ability to resolve a specific conflict scenario followed an identical pattern: at the 25th percentile of perceiving the chief's authority as customary, receiving the vignette treatment was associated with a 0.25 standard deviation increase in the CLDMC's ability to resolve the conflict, compared to no statistically significant effect at the 75th percentile.

Among respondents at the 25th percentile of this index, receiving the vignette did not affect respondents' willingness to bring a dispute to the chief; among respondents at the 75th percentile, receiving the vignette is associated with a 0.24 standard deviation decrease in willingness to bring a dispute to the chief. We see no variation in treatment effects for the effect of the vignette treatment on bringing a dispute to the CLDMC, confidence in the chief's ability to resolve disputes, or in the belief that one would have to pay the chief for a judgement. Moreover, appendix table D3 shows that the effects of the CLDMC having previously resolved a conflict are constant across different levels of the two chiefly authority indices.

Together, these results paint a nuanced portrait of hypothesis H3. The effects of the treatment vignette are constant across all levels of the chief's overall authority. However, when the chief's authority constrained to the customary sphere, respondents are more easily convinced that a CLDMC would be able to resolve their dispute—and less willing to take their dispute to the chief. These results are broadly in line with hypothesis H3: the effect of treatment is indeed stronger among those who perceive their chief's authority to be largely ceremonial. These results are largely consistent with a process in which some respondents are early adopters of CLDMCs—but where the erosion of the chiefs' authority comes later.

Next, hypothesis H4 suggests that treatment effects will be stronger among respondents who are not socially or otherwise proximate to the chief. Such respondents are more likely to be members of social groups, such as ethnic outsiders or landless locals, who may perceive customary institutions to be biased against them. We measure this proximity both by asking respondents if they have a familial relationship with the chief and by measuring the distance between the respondent's household and the village center. However, appendix D.2 and appendix D.3 show no treatment effect heterogeneity by either of these measures. Contrary to expectations, the vignette treatment is no more

impactful among respondents who are more likely to be discriminated against by the customary institutions.

This finding contrasts with other literature which suggests that uptake of formal land governance is likely to be higher among respondents more privileged by customary institutions. Honig (2022a), for instance, documents how the ongoing strength of customary institutions—which formal land titling erodes—for privileged members of these customary institutions, producing an incentive to impede titling. In Liberia, Blair, Karim, and Morse (2019) show that expanding police patrols increased reliance on police almost exclusively among citizens who were not members of local secret societies. That, contra H_4, respondents who were more socially proximate to the chief were no more receptive to the vignette or two-stage treatment, is therefore puzzling. Our treatment moved confidence in CLDMCs approximately uniformly among different levels of social proximity to a chief. This result is, however, consistent with the ambient legitimacy mechanism driving respondents' choice of conflict resolution institution, rather than a respondent's individual preferences.

Lastly, respondents who have prior knowledge of CLDMCs or who are familiar with a CLDMC in their village are likely to have smaller treatment effects, simply because they have stronger priors on the effectiveness of CLDMCs which are harder to shift. Figure D3 shows the negative effect of the vignette treatment on willingness to bring a non-specific dispute to the chief was stronger among respondents who were more familiar with CLDMCs; likewise, the positive effect of the vignette on willingness to bring a dispute to the CLDMC was stronger among these respondents. The vignette treatment increased respondents' willingness to bring disputes to the CLDMC most among those who reported a CLDMC existed. However, the effect of the vignette treatment on respondents' confidence that a CLDMC could resolve a conflict were strongest among respondents with no prior knowledge of CLDMCs. Together, these results indicate that respondents unfamiliar with CLDMCs increased their confidence in CLDMCs after treatment—but were not yet willing to actually bring a dispute to the CLDMC unless they had some experience with the institution.

Lastly, I pre-registered a data-driven procedure to identify additional sources of treatment effect heterogeneity using generalized random forests to calculate conditional av-

erage treatment effects (CATEs) (Wager and Athey 2018). Appendix D.5 shows these results in full. For the vignette treatment, this procedure identifies HTEs only for the 'CLDMC could resolve' and 'pay chief' outcomes following the scenarios. For the two-stage treatment, this procedure identifies HTEs only for the 'chief could resolve' outcome. For all three outcomes, chiefly authority drives much of this heterogeneity. Interestingly, this procedure also uncovers suggestive heterogeneity by variables including terrain ruggedness and cocoa and coffee suitability—suggesting that the introduction of formal institutions will erode informal authority more strongly in villages which are less remote and more embedded in commercial value chains. These results are purely descriptive, but align with existing literature which links the emergence of formal property rights with returns to cash crop agriculture (Ribar 2026) and with rising land values more generally (Libecap 1989).

6 Discussion and Conclusion

Formal land governance is becoming increasingly available across the African continent as states expand the presence of local committees which administer property rights and resolve conflicts. Customary institutions, however, already provide these services—and providing these services is what generates the ambient legitimacy which sustains these institutions. If citizens begin to rely on formal institutions, the customary institutions begin to lose their ambient legitimacy—seeing others relying on customary institutions is the clearest signal that these institutions are legitimate sources of conflict resolution. Consequently, ambient legitimacy may remain high for customary institutions and low for formal institutions, creating a social equilibrium in which citizens continue to rely on informal institutions regardless of institutional quality or state capacity.

This paper uses a series of survey experiments administered to 1,325 household heads across six districts of rural Liberia to illustrate this theory. These experiments take place amid a critical juncture in land administration in Liberia, where the Liberia Land Authority is beginning to roll out Community Land Development and Management Committees (CLDMCs). These CLDMCs formalize land governance by drafting land and resource bylaws, administering land tenure formalization via a 'tribal certificate,' and re-

solving disputes, thereby reducing the important of town chiefs within land governance. However, CLDMCs are still being stood up across the country, and it remains to be seen whether they will become widely adopted, making this period a critical juncture in which institutional change is possible, but not certain (Callen, Weigel, and Yuchtman 2024).

I show that informing respondents about the roles and competencies of CLDMCs increases their confidence in CLDMCs' ability to resolve land disputes by 0.19 to 0.21 standard deviations but has no effect on respondents' confidence that a town chief could resolve a land dispute. An overwhelming percentage of respondents said they would bring an unspecified dispute to their town chief to resolve, though learning about CLDMCs reduces this fraction from 97 percent to 94 percent. I show similar results when presenting respondents with a series of more specific conflict scenarios. In other words, informing citizens about institutional quality can increase citizens' perceptions of the CLDMCs' competency, but it does not meaningfully affect citizens' propensity to actually use these institutions.

In contrast, increasing the ambient legitimacy of the CLDMCs—by saying that other members of the community have begun to rely on CLDMCs—does shift respondents' propensity to use these institutions. When the scenario mentions that CLDMCs previously resolved an unrelated conflict in the community, respondents are 0.10 standard deviations less confident in their town chiefs' ability to resolve this conflict, but no less confident in the CLDMCs' ability to resolve the conflict. I also illustrate how much of this forum shopping takes place in a vertical, rather than horizontal sequence: respondents will initially bring a dispute to a town chief but vary greatly in where they would appeal a chief's decision with which they were unhappy. In other words, the significant homogeneity in where citizens say they would bring a dispute masks equally significant heterogeneity in where they would appeal that dispute. Finally, I show that informing respondents about CLDMCs produces the largest increase in trust in CLDMCs among respondents who perceive their chief's authority to be limited to the customary sphere.

Traditional authorities remain de facto sources of conflict resolution across the developing world (Baldwin 2025). Existing literature often explains this persistence by pointing towards citizens' favorable evaluations of the quality of services rendered by these

customary institutions (Acemoglu et al. 2020; Winters and Conroy-Krutz 2021; Bezares Calderón et al. 2026). Alternative research highlights factors such as chiefs' role in allocating property rights (Baldwin and Ricart-Huguet 2023; Ribar 2026), historical legacies (Nathan 2023; Acemoglu, Reed, and Robinson 2014), and chiefs' roles as interlocutors between the state and rural citizens (Baldwin 2016). This paper adds to this literature by highlighting the inherent endogeneity of chief's authority: when citizens see chiefs as legitimate sources of conflict resolution, they bring their disputes to the chief, which reifies the chief's authority to resolve disputes (Lund 2008). This process, which I summarize as ambient legitimacy, is particularly relevant to explaining chief's persistent role as sources of conflict resolution, in which both sides to a dispute need to agree on a forum—and the clearest signal of a forum's authority is whether other citizens use it.

Plaintiffs generally default to informal institutions, even when formal institutions are available (Winters and Conroy-Krutz 2021; Chaara, Falisse, and Moriceau 2022). As a result, much of the existing literature explores how informal and formal institutions complement or substitute for one another (Henn 2023; Honig 2022a). These results illustrate how forum shopping for conflict resolution in Liberia proceeds vertically, rather than horizontally: the forum shopping occurs when households decide whether and where to appeal their cases. This dynamic introduces a new mechanism for accountability in informal institutions, adding to the downards accountability (Baldwin 2025) and horizontal accountability (Honig 2022a; Wilfahrt 2022). Where citizens can appeal chiefs' decisions to formal institutions, then chiefs have an incentive to avoid being overruled by keeping their decisions reasonably close to those that a formal land institution would make.

Finally, these findings align with a small but growing literature which studies how introducing new institutions affects customary authorities. Balán et al. (2026), for example, show how citizens who obtain formal land rights not only decrease their reliance on social institutions, but worsen their evaluations of city chiefs. This paper documents a similar dynamic, but in a rural area, where chiefs are likely to be stronger and the state weaker.[23] This dynamic is not unique to Africa: in Peru, for example, titling of communal property weakens political representation of indigenous groups (Carter 2021). By

23. This paper also centers hierarchical customary institutions, as opposed to horizontal social groups in Balan et al. (Balán et al. 2026).

tracing the role of ambient legitimacy in sustaining customary institutions, this paper outlines conditions under which the role of customary institutions in conflict resolution may change.

I use the ongoing rollout of CLDMCs in Liberia as an empirical setting to demonstrate the role of ambient legitimacy in sustaining customary institutions. However, the institutional pluralism which sets the scene for this argument is common throughout both Africa and the broader developing world (Baldwin 2025). Moreover, many African countries are now expanding the access to decentralized land governance via local committees, including Côte d'Ivoire (*Comitès Villageois de Gestion Foncier Rurale*), Ethiopia (Kebele Land Administration Committees),Kenya (Community Land Management Committees), and Sènègal (*Commissions Domaniales*). The wide geographic scope of these decentralized land institutions suggests that the logic of ambient legitimacy travel to a wide range of similar reforms underway elsewhere in Africa.

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Online Appendix:
Who settles your land palavas? Ambient legitimacy and institutional change in rural Liberia

Matthew K. Ribar

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A Survey and sampling details

A.1 Sampling

I surveyed respondents across six districts of rural Liberia. In Gbarpolu County, I surveyed 253 respondents in Bopolu district and 219 in Gbarma district. In Grand Bassa County, I surveyed 211 respondents in District #3 and 212 respondents in District #4. In Bong County, I surveyed 210 respondents in Fuamah district and in Rivercess county I surveyed 220 respondents in Jo River district. These differences reflect sampling idiosyncrasies between villages and districts. Survey work was completed by the Center for Action Research and Training (CART) using a team of fourteen enumerators.

The goal of this sampling strategy was to ensure variation in the extent to which respondents perceived their chiefs to be authoritative. To do so, I leverage two pre-existing sources of variation. I first selected areas with differing levels of pre-colonial hierarchy, as measured by Murdock's ethnographic atlas (Murdock 1967, 160). More specifically, I use the local hierarchy variable, which captures "[t]he number of jurisdictional levels in the local community," rather than the hierarchy above the village level—to better mirror the constituencies of contemporary town chiefs. Of course, the Murdock data do not perfectly describe differences between pre-colonial institutions, nor do the associated shapefiles identify some sharp discontinuity. Nevertheless, these data allow me to identify two clusters where the levels of within-village hierarchy are, on average, likely to be different. Neupert-Wentz and Müller-Crepon (2024) show how these data on precolonial institutions predict political centralization and other functional differences in local politics in the current period, though Murdock measurements cannot perfectly characterize the differences among precolonial polities. Specifically, I identify one cluster in the northwest centered on Gbarpolu County, where the Murdock data documents high levels of precolonial hierarchy, and one cluster centered on Grand Bassa Country where precolonial hierarchy was lower.

In addition to precolonial hierarchy, I sampled districts along a historic discontinuity in property regimes in Liberia. Liberia previously distinguished between a regime which emphasized private property, within 40 miles of the coast, and one which emphasized

customary land rights, in the "hinterlands" (Christensen, Hartman, and Samii 2021; Mitman 2021). Table A1 tests whether this historic discontinuity produces any such variation by regressing six measures of chiefly authority and institutional trust—the first and second principal components of the chiefly authority index, the horizontal linkages index, demeaned trust in chiefs, demeaned trust in CLDMCs, and overall mean trust—on an indicator for whether a respondent's village fell within a coastal, rather than hinterlands, sampling stratum, controlling for district fixed effects and the same demographic and geographic covariates used elsewhere in the paper. None of these coefficients are statistically distinguishable from zero, suggesting that the coastal/hinterlands line is not associated with any meaningful distinction in chiefly authority. My research design does not rely on either this discontinuity or the Murdock data for identifying variation, so these null results do not affect or constrain the remainder of the paper.

Table A1. Coastal and hinterlands differences within districts

Outcome	Coefficient	Std.Err.	T-stat	P-value
Authority Index (1st PC)	-0.18	0.17	-1.09	0.30
Authority Index (2nd PC)	-0.27	0.24	-1.11	0.29
Trust in chiefs (demeaned)	0.00	0.09	0.03	0.98
Trust in CLDMCs (demeaned)	-0.10	0.18	-0.56	0.59
Overall mean trust	0.10	0.07	1.45	0.18

Note: This table shows coefficient estimates from a series of OLS regressions where the explanatory variable is whether a respondent was in a coastal strata (as opposed to a hinterlands strata). All regressions use district fixed effects, village-level geographic controls, and respondent-specific demographic controls. Standard errors are clustered at the village level.

My specific sampling process was as follows. I first subsetted to the districts which bisected the historic 40 mile inland line. I then sorted this set of districts into two clusters, based on whether the district had high or low precolonial hierarchy, per the Murdock polygons (Murdock 1967). Within each cluster, I then randomly selected one district. I then randomly selected two more districts from those adjoining the initial district.[2] This process selected six districtcs, which I then divided into eleven strata based on the hinterlands discontinuity (the entirety of District 4 lay within 40 miles of the coast).

2. The latter decision was made to maximize the potential sample size by keeping enumerator's travel times to a reasonable level.

I then selected villages. Using the 2008 Liberian census as a sampling frame, I then randomly selected villages within each strata.

One important distinction between the real sampling and the pre-registered sampling is the number of villages. When we arrived into the field, it became clear that many of the villages were under-populated relative to their reported populations in the sampling frame. Consequently, to achieve the quota we sampled the same number of respondents across a greater number of villages. Once enumerators arrived at the village, we selected households using a random walk. After selecting households, enumerators solicited informed consent script from all respondents before administering the survey.

A.2 Ethics

This research was approved by two separate IRBs: the Atlantic Center for Research & Evaluation (ACRE) IRB at the University of Liberia under protocol number 26-01-494 and the Washington University in St. Louis IRB under protocol number 202601198. I did not compensate participants in this research for their time. Total participation in this survey lasted approximately one hour. The data I collected were not sensitive, and I do not believe that responding to the survey carried any more than minimal risk to respondents. Likewise, I do not believe that exposure of de-anonymized data would cause more than minimal harm to respondents. To ensure that all questions were appropriate to the context, I consulted with both the ACRE IRB in Monrovia and my data collection firm. Both approved all questions.

In line with the American Political Science Association's ethics principles, this script included my name and affiliation, the general purpose of the research, an explanation of what the research entailed, details about risks and benefits of the research, and an explanation that we could share the aggregated data after having deleted identifying information. The informed consent script included contact information for both the ACRE IRB at the University of Liberia and myself. Enumerators collected oral consent, rather than written documentation of consent, to account for uneven literacy rates in Liberia.

One potential risk to respondents is that leaked data could identify which house-

holds do not possess formal documentation for their landholdings. In the the 2019 Demographic and Health Surveys, however, only 17 percent of households possessed some manner of documentation for their land. Consequently, I judged the risk of exposing this information to be minimal.

A.3 Balance tables

Table A2 shows the covariate balance between respondents who received the treatment and control vignettes. Table A2 shows that respondents who received the treatment and control vignettes are balanced across observable characteristics. Table A3 shows balance for the two-stage experiment. It reveals slight imbalances across two age group variables as well as across road density. These imbalances are surprising, as the survey software randomized this treatment twice within respondent. However, a joint F-test of the treatment indicator on these variables fails to reject the null hypothesis of balance for both the vignette treatment ($F = 0.876$, $p = 0.6409$) and the two-stage treatment ($F = 1.2661$, $p = 0.1699$).

Table A2. Treatment groups for the vignette experiment are balanced across observable characteristics

	Treatment group			Control group			Difference
	Mean	Std.Err.	N	Mean	Std.Err.	N	T-value
Respondent is female	0.42	0.49	656	0.41	0.49	669	0.25
Respondent is spouse	0.33	0.47	656	0.33	0.47	669	-0.10
English proficiency	1.65	1.11	654	1.56	1.11	669	1.39
Wealth index (1st PCA)	-0.01	0.54	656	0.01	0.56	669	-0.60
Wealth index (2nd PCA)	0.02	0.47	656	-0.02	0.45	669	1.69
Age group							
Between 18 and 30	0.13	0.33	654	0.15	0.36	667	-1.21
Between 30 and 40	0.24	0.43	654	0.25	0.43	667	-0.31
Between 40 and 50	0.28	0.45	654	0.27	0.44	667	0.28
Between 50 and 60	0.21	0.41	654	0.20	0.40	667	0.73
Older than 60	0.15	0.35	654	0.14	0.35	667	0.38
Education							
No education	0.31	0.46	656	0.31	0.46	669	0.06
Primary school	0.40	0.49	656	0.40	0.49	669	0.07
Secondary school	0.24	0.43	656	0.25	0.43	669	-0.31
Technical school	0.02	0.15	656	0.02	0.14	669	0.43
University or higher	0.02	0.15	656	0.02	0.15	669	0.05
Ethnicity							
Bassa	0.41	0.49	656	0.39	0.49	669	0.91
Gbandi	0.01	0.12	656	0.02	0.15	669	-1.37
Gola	0.07	0.25	656	0.06	0.24	669	0.32
Kissi	0.02	0.14	656	0.02	0.15	669	-0.33
Kpelle	0.36	0.48	656	0.36	0.48	669	0.04
Loma	0.02	0.14	656	0.03	0.17	669	-0.99
Mano	0.02	0.14	656	0.02	0.14	669	0.05
Other	0.08	0.28	656	0.09	0.29	669	-0.57
Geographic variables							
Road density	347.10	102.06	629	341.46	102.03	640	0.99
Cocoa suitability (kg/ha)	1432.40	150.11	629	1421.07	145.29	640	1.37
Coffee suitability (kg/ha)	1589.97	174.64	629	1583.70	172.50	640	0.64
Distance to country capital (asinh)	4.30	0.92	629	4.40	0.93	640	-1.82
Terrain ruggedness	25.00	19.57	629	25.99	19.18	640	-0.91

Note: This table shows balance across respondents who received the treatment and control vignettes. T-scores calculated using a two sample t-test with unequal variances.

Table A3. Treatment groups for the two-stage experiment are balanced across observable characteristics

	Treatment group			Control group			Difference
	Mean	Std.Err.	N	Mean	Std.Err.	N	T-value
Respondent is female	0.41	0.49	1348	0.42	0.49	1302	-0.60
Respondent is spouse	0.32	0.47	1348	0.33	0.47	1302	-0.46
English proficiency	1.62	1.11	1345	1.59	1.11	1301	0.76
Wealth index (1st PCA)	0.01	0.55	1348	-0.01	0.54	1302	1.08
Wealth index (2nd PCA)	0.00	0.45	1348	0.00	0.47	1302	-0.24
Age group							
Between 18 and 30	0.12	0.33	1344	0.15	0.36	1298	-2.05
Between 30 and 40	0.26	0.44	1344	0.22	0.42	1298	2.04
Between 40 and 50	0.28	0.45	1344	0.26	0.44	1298	0.85
Between 50 and 60	0.19	0.39	1344	0.22	0.41	1298	-1.80
Older than 60	0.15	0.35	1344	0.14	0.35	1298	0.52
Education							
No education	0.31	0.46	1348	0.31	0.46	1302	0.32
Primary school	0.40	0.49	1348	0.40	0.49	1302	0.06
Secondary school	0.25	0.43	1348	0.25	0.43	1302	0.12
Technical school	0.02	0.15	1348	0.02	0.14	1302	0.14
University or higher	0.02	0.13	1348	0.03	0.16	1302	-1.70
Ethnicity							
Bassa	0.41	0.49	1348	0.40	0.49	1302	0.54
Gbandi	0.02	0.14	1348	0.02	0.13	1302	0.73
Gola	0.07	0.26	1348	0.06	0.23	1302	1.68
Kissi	0.02	0.14	1348	0.02	0.15	1302	-0.40
Kpelle	0.35	0.48	1348	0.37	0.48	1302	-1.48
Loma	0.03	0.17	1348	0.02	0.15	1302	1.09
Mano	0.02	0.14	1348	0.02	0.15	1302	-0.67
Other	0.09	0.28	1348	0.09	0.29	1302	-0.28
Geographic variables							
Road density	349.70	100.05	1287	338.66	103.76	1251	2.73
Cocoa suitability (kg/ha)	1429.35	149.29	1287	1423.93	146.10	1251	0.92
Coffee suitability (kg/ha)	1589.03	173.84	1287	1584.51	173.17	1251	0.66
Distance to country capital (asinh)	4.35	0.91	1287	4.35	0.94	1251	-0.13
Terrain ruggedness	25.11	18.95	1287	25.90	19.78	1251	-1.02

Note: This table shows balance across treatment and control observations for the two-stage experiment. Each respondent saw two two-stage profiles, each of which was randomized independently. T-scores calculated using a two sample t-test with unequal variances.

B Regression tables

Table B1. Regression coefficients for figure 2 (difference-in-means)

		One-stage			Two-stage	
	All scenarios	Boundary dispute	Inheritance dispute	Community land	Boundary dispute	Inheritance dispute
Likelihood the CLDMC could resolve the conflict						
Vignette treatment	0.158*	0.161*	0.179*	0.193**	0.179*	0.076
	(0.068)	(0.073)	(0.074)	(0.074)	(0.071)	(0.074)
Num.Obs.	6625	1325	1325	1325	1325	1325
R2	0.003	0.004	0.004	0.005	0.005	0.001
Likelihood the Chief could resolve the conflict						
Vignette treatment	-0.087	-0.049	-0.039	-0.053	-0.127	-0.168*
	(0.061)	(0.071)	(0.074)	(0.072)	(0.070)	(0.075)
Num.Obs.	6625	1325	1325	1325	1325	1325
R2	0.001	0.000	0.000	0.000	0.002	0.004
Would have to pay the chief for a judgement?						
Vignette treatment	-0.126	-0.060	-0.130	-0.189*	-0.114	-0.135
	(0.087)	(0.096)	(0.097)	(0.096)	(0.096)	(0.095)
Num.Obs.	6625	1325	1325	1325	1325	1325
R2	0.001	0.000	0.001	0.003	0.001	0.002

Note: The outcome variables are 'If people brought this conflict to the CLDMC, how likely do you think it is that the CLDMC would be able to resolve it peacefully?' (row one), 'If people brought this conflict to the village chief, how likely do you think it is that the village chief would be able to resolve it peacefully?' (row two) and 'How likely do you think it is that the parties to this dispute would have to pay the village chief in order to obtain a judgement?' (row three). Treatment indicates having received the vignette describing CLDMCs. Regressions use OLS with no covariates and with standard errors clustered at the respondent level.

Table B2. Regression coefficients for figure 2 (covariate-adjusted)

		One-stage			Two-stage	
	All scenarios	Boundary dispute	Inheritance dispute	Community land	Boundary dispute	Inheritance dispute
Likelihood the CLDMC could resolve the conflict						
Vignette treatment	0.143*	0.144*	0.155*	0.176*	0.166*	0.075
	(0.067)	(0.073)	(0.075)	(0.075)	(0.071)	(0.075)
Num.Obs.	6315	1263	1263	1263	1263	1263
R2	0.091	0.089	0.098	0.098	0.110	0.088
Likelihood the Chief could resolve the conflict						
Vignette treatment	-0.083	-0.060	-0.026	-0.059	-0.139	-0.134
	(0.060)	(0.072)	(0.074)	(0.073)	(0.071)	(0.075)
Num.Obs.	6315	1263	1263	1263	1263	1263
R2	0.083	0.091	0.120	0.071	0.093	0.110
Would have to pay the chief for a judgement?						
Vignette treatment	-0.118	-0.048	-0.141	-0.164	-0.116	-0.123
	(0.081)	(0.093)	(0.093)	(0.093)	(0.091)	(0.091)
Num.Obs.	6315	1263	1263	1263	1263	1263
R2	0.178	0.166	0.189	0.178	0.201	0.190

Note: The outcome variables are 'If people brought this conflict to the CLDMC, how likely do you think it is that the CLDMC would be able to resolve it peacefully?' (row one), 'If people brought this conflict to the village chief, how likely do you think it is that the village chief would be able to resolve it peacefully?' (row two) and 'How likely do you think it is that the parties to this dispute would have to pay the village chief in order to obtain a judgement?' (row three). Treatment indicates having received the vignette describing CLDMCs. Demographic variables include sex, respondents' position in the household, wealth, age group, education, English proficiency, and ethnicity; geographic controls include road density, cocoa suitability, coffee suitability, distance to the county capital, and terrain ruggedness (calculated within 25 kilometer radii of the village centroids, where applicable). All control variables are demeaned and interacted with treatment (Lin 2013). Regressions use OLS with district and scenario fixed effects; standard errors are clustered at the respondent level.

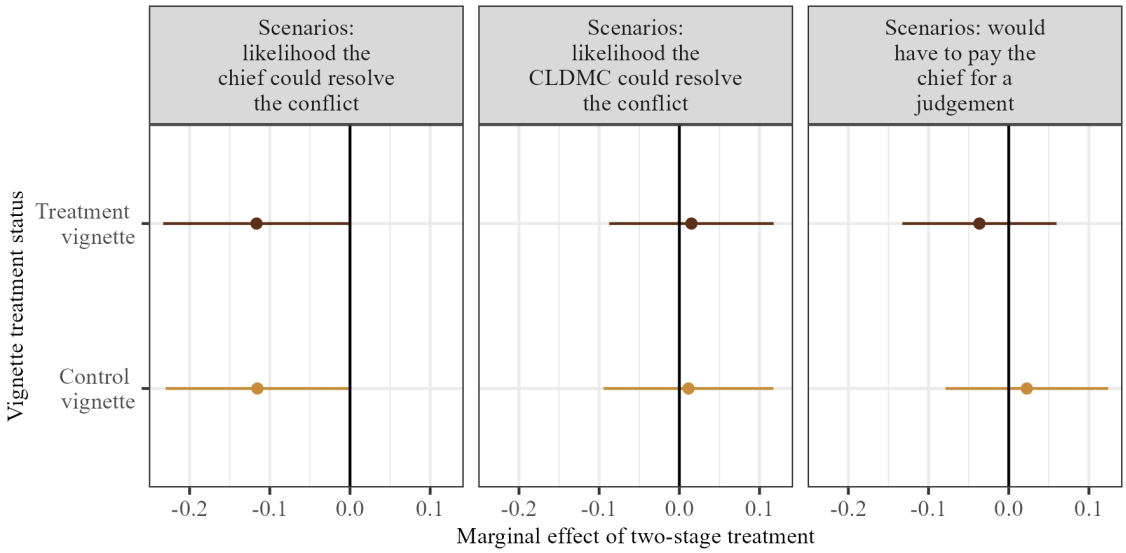
Table B3. Regression coefficients for figure 3

	All scenarios	Boundary dispute	Inheritance dispute	All scenarios	Boundary dispute	Inheritance dispute
Likelihood the CLDMC could resolve the conflict						
Sequential treatment	0.040	-0.028	0.106	0.017	-0.045	0.074
	(0.052)	(0.071)	(0.074)	(0.052)	(0.071)	(0.075)
Num.Obs.	2650	1325	1325	2526	1263	1263
R2	0.000	0.000	0.002	0.087	0.106	0.088
Likelihood the Chief could resolve the conflict						
Sequential treatment	-0.132*	-0.174*	-0.096	-0.135*	-0.158*	-0.124
	(0.054)	(0.070)	(0.075)	(0.054)	(0.070)	(0.075)
Num.Obs.	2650	1325	1325	2526	1263	1263
R2	0.002	0.005	0.001	0.092	0.084	0.118
Would have to pay the chief for a judgement?						
Sequential treatment	0.015	-0.093	0.122	-0.027	-0.158	0.100
	(0.068)	(0.096)	(0.095)	(0.064)	(0.092)	(0.091)
Num.Obs.	2650	1325	1325	2526	1263	1263
R2	0.000	0.001	0.001	0.181	0.196	0.188
District FEs				X	X	X
Demographic controls				X	X	X
Geographic controls				X	X	X

Note: The outcome variables are 'If people brought this conflict to the CLDMC, how likely do you think it is that the CLDMC would be able to resolve it peacefully?' (row one), 'If people brought this conflict to the village chief, how likely do you think it is that the village chief would be able to resolve it peacefully?' (row two) and 'How likely do you think it is that the parties to this dispute would have to pay the village chief in order to obtain a judgement?' (row three). Treatment indicates having received the vignette describing CLDMCs. Demographic variables include sex, respondents' position in the household, wealth, age group, education, English proficiency, and ethnicity; geographic controls include road density, cocoa suitability, coffee suitability, distance to the county capital, and terrain ruggedness (calculated within 25 kilometer radii of the village centroids, where applicable). All control variables are demeaned and interacted with treatment (Lin 2013). Regressions use OLS with district and scenario fixed effects; standard errors are clustered at the respondent level.

C Additional analyses

Figure C1. There are no interaction effects between the vignette and two-stage treatments

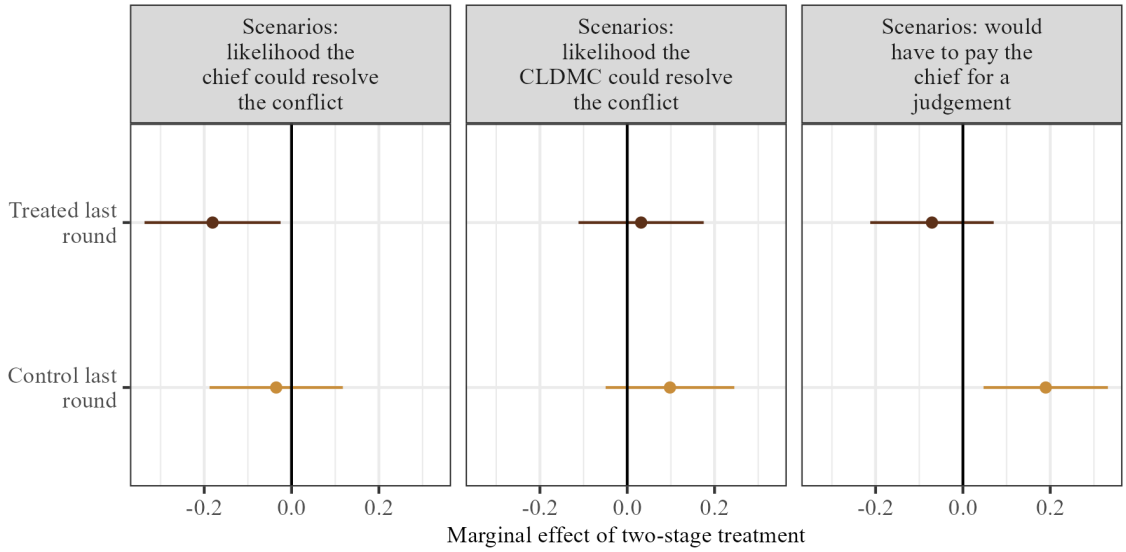


This figure shows the marginal effect of the two-stage treatment (a CLDMC previously resolved an unrelated conflict). Regressions use OLS with district fixed effects and demographic control variables; standard errors are clustered at the respondent level.

This appendix conducts a series of additional analyses using these survey data. First, a logical—though not pre-registered—question is whether there is an interaction effect between the two survey experiments. Does a CLDMC having resolved a previous conflict have a greater effect on responses if the respondent was introduced to CLDMCs by the vignette experiment? Figure C1 shows that the effect of the two-stage treatment is constant regardless of whether the respondent received the treatment or control vignette.

Next, figure C2 tests for a spillover effect between the two rounds of the two-stage experiment. Scenarios one, two, and three did not have a two-stage treatment, they only measured the effect of the vignette treatment. This figure shows the marginal effect of the two-stage treatment in scenario five, conditional on whether the respondent received the treatment or control condition in scenario four. In other words, did a CLDMC resolve

Figure C2. Effects of the CLDMC having resolved an unrelated conflict in scenario four spillover to scenario five



This figure shows the marginal effect of the vignette treatment variable on attitudes toward conflict resolutions and pooled responses to the five scenarios, broken out by the respondent's familiarity with CLDMCs. All regressions use OLS with district fixed effects, along with demographic and geographic control variables (demeaned and interacted with treatment). Standard errors are robust or clustered at the respondent level (pooled responses to the scenarios).

an unrelated previous conflict in the scenario described immediately beforehand? Figure 3 shows an overall null effect when restricting only to scenario five, but this figure shows a more nuanced result. Consistent with results from round four, being told the CLDMC resolved a previously unrelated conflict does reduce trust in the chief's abilities—but only if the CLDMC also resolved an unrelated conflict in round four. This effect (a 0.18 standard deviation decrease) is roughly in line with the magnitude of the effect figure 3 shows for round four alone.

Interestingly—and contra figure 3—figure C2 shows that the CLDMC resolving a previously unrelated case increases respondents' perceptions that the chief could extract a fee for resolving conflicts—but only if the CLDMC did not resolve an unrelated conflict in the previous round.

D Heterogeneous treatment effects

D.1 Chief's authority

Figure 5 shows the marginal effect of the vignette treatment across two indices: the chief's overall authority and the extent to which the chief's authority is customary, rather than secular. These indices are the first and second principal components, respectively, of the following questions: "[i]magine that your town chief asked people to participate in these activities. For each of these activities, I would like you to tell me how much of the village you think would do what the chief asked them to do: (1) participate in cleaning the village; (2) give up a piece of land for a school; (3) give up a piece of land for a church; (4) spend a day repairing a road; (5) spend a day planting trees; (6) attend a village ritual; or (7) contribute money to a village festival." The overall index is essentially just the average of the answers to this question. The customary authority index loads negatively on questions two, three, and five and loads positively on questions six and seven. Ribar (2026, 413) makes a similar distinction between chiefs' "political authority" and chiefs' "authority in a more traditional sphere."

Column four of tables D1 and D2 show the regression coefficients for figure 5. The effect of the vignette treatment on the respondents' confidence in the CLDMC's ability to resolve conflict both in general and in response to specific scenarios is decreasing in the extent to which the chief's authority is customary rather than secular. In contrast, table D3 shows no heterogeneous treatment effects for the two-stage treatment by the chiefly authority indices.

I pre-registered an additional hypothesis that "Independent of the treatment condition, respondents to perceive their chief to be more authoritative will trust/choose the chief more." This hypothesis is descriptive, rather than causal, so I do not include it in the body of the manuscript. Nevertheless, table D1 shows a positive association between the chief's overall authority and both the respondent's willingness to bring a dispute to the chief and their confidence in the chief's ability to resolve a conflict. Table D2 tells a similar story in response to the more specific scenarios posed to respondents.

Table D1. Regression coefficients for figure 5 (attitudinal outcomes)

	(1)	(2)	(3)	(4)	(5)
Would bring a dispute to the chief					
Treatment	-0.026*	-0.029**	-0.028*	-0.029*	-0.028*
	(0.011)	(0.011)	(0.011)	(0.012)	(0.012)
Overall authority	0.014**	0.013*	0.011*	0.013**	0.003
	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
Customary authority	0.001	0.003	0.002	0.001	0.013
	(0.006)	(0.006)	(0.006)	(0.007)	(0.008)
Treatment * Overall	0.010	0.010	0.005	0.004	0.006
	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)
Treatment * Customary	-0.023*	-0.022*	-0.012	-0.012	-0.008
	(0.011)	(0.011)	(0.011)	(0.012)	(0.012)
Num.Obs.	1325	1325	1319	1263	1263
R2	0.041	0.051	0.078	0.089	0.129
Would bring a dispute to the CLDMC					
Treatment	0.006	0.007	0.006	0.005	0.004
	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)
Overall authority	-0.011*	-0.010*	-0.010*	-0.012**	-0.006
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
Customary authority	0.000	0.000	0.003	0.004	-0.004
	(0.006)	(0.006)	(0.006)	(0.006)	(0.007)
Treatment * Overall	-0.006	-0.006	-0.004	-0.004	-0.005
	(0.007)	(0.007)	(0.006)	(0.007)	(0.007)
Treatment * Customary	0.009	0.008	0.005	0.005	0.003
	(0.009)	(0.009)	(0.009)	(0.010)	(0.009)
Num.Obs.	1325	1325	1319	1263	1263
R2	0.046	0.054	0.114	0.137	0.170
Confidence in the chief's ability to resolve disputes					
Treatment	0.042	0.040	0.055	0.049	0.054
	(0.036)	(0.035)	(0.036)	(0.037)	(0.036)
Overall authority	0.084***	0.090***	0.091***	0.090***	0.069***
	(0.019)	(0.019)	(0.018)	(0.019)	(0.020)
Customary authority	0.089**	0.074*	0.065*	0.067*	0.063
	(0.030)	(0.030)	(0.029)	(0.031)	(0.033)
Treatment * Overall	0.011	0.010	0.011	0.014	0.007
	(0.025)	(0.025)	(0.025)	(0.027)	(0.026)
Treatment * Customary	-0.094*	-0.093*	-0.091*	-0.087*	-0.080
	(0.040)	(0.040)	(0.039)	(0.042)	(0.042)
Num.Obs.	1324	1324	1318	1262	1262
R2	0.067	0.087	0.126	0.131	0.161
Confidence in the CLDMC's ability to resolve disputes					
Treatment	0.257***	0.264***	0.272***	0.268***	0.274***
	(0.059)	(0.059)	(0.059)	(0.059)	(0.054)
Overall authority	0.109***	0.114***	0.112***	0.136***	0.016
	(0.028)	(0.028)	(0.028)	(0.028)	(0.027)
Customary authority	-0.050	-0.064	-0.032	-0.041	0.104*
	(0.041)	(0.041)	(0.040)	(0.040)	(0.043)
Treatment * Overall	0.018	0.016	0.011	-0.008	0.014
	(0.036)	(0.035)	(0.036)	(0.037)	(0.033)
Treatment * Customary	-0.191***	-0.192***	-0.216***	-0.188**	-0.120*
	(0.057)	(0.056)	(0.056)	(0.057)	(0.052)
Num.Obs.	1311	1311	1305	1250	1250
R2	0.075	0.081	0.129	0.162	0.321
District FEs		X	X	X	X
Demographic controls			X	X	X
Geographic controls				X	X
Enumerator FEs					X

Note: This table shows the regression coefficients used to generate the marginal effects in figure 5. Treatment indicates receiving a vignette describing the role of a CLDMC. Overall authority refers to the first principal component of the chiefly authority index; customary authority refers to the second principal component. Demographic variables include sex, respondents' position in the household, wealth, age group, education, English proficiency, and ethnicity; geographic controls include road density, cocoa suitability, coffee suitability, distance to the county capital, and terrain ruggedness (calculated within 25 kilometer radii of the village centroids, where applicable). Control variables are demeaned and interacted with treatment (Lin 2013). Regressions use OLS with HC1-robust standard errors.

Table D3. Effects of the CLDMC resolving a prior conflict are homogeneous by chiefly authority

	(1)	(2)	(3)	(4)	(5)
Likelihood the CLDMC could resolve the conflict					
Treatment	0.036	0.048	0.040	0.030	0.032
	(0.050)	(0.050)	(0.049)	(0.050)	(0.042)
Overall authority	0.149***	0.157***	0.140***	0.159***	0.007
	(0.026)	(0.026)	(0.026)	(0.026)	(0.023)
Customary authority	-0.254***	-0.278***	-0.244***	-0.255***	0.027
	(0.040)	(0.040)	(0.041)	(0.040)	(0.039)
Treatment * Overall	-0.021	-0.026	0.002	-0.002	0.024
	(0.030)	(0.030)	(0.030)	(0.031)	(0.025)
Treatment * Customary	0.057	0.067	0.022	0.023	0.028
	(0.048)	(0.047)	(0.048)	(0.048)	(0.043)
R2	0.072	0.082	0.125	0.154	0.402
Likelihood the Chief could resolve the conflict					
Treatment	-0.128*	-0.120*	-0.138**	-0.119*	-0.103*
	(0.052)	(0.051)	(0.050)	(0.051)	(0.049)
Overall authority	0.234***	0.254***	0.221***	0.218***	0.120***
	(0.024)	(0.025)	(0.026)	(0.027)	(0.030)
Customary authority	-0.029	-0.056	-0.017	-0.017	0.004
	(0.037)	(0.037)	(0.038)	(0.039)	(0.044)
Treatment * Overall	-0.062*	-0.071*	-0.038	-0.039	-0.033
	(0.030)	(0.030)	(0.032)	(0.035)	(0.033)
Treatment * Customary	0.011	0.028	0.021	0.007	-0.015
	(0.054)	(0.053)	(0.054)	(0.055)	(0.053)
R2	0.077	0.094	0.135	0.147	0.237
Would have to pay the chief for a judgement?					
Treatment	0.016	0.011	-0.013	-0.023	0.010
	(0.067)	(0.064)	(0.063)	(0.064)	(0.053)
Overall authority	0.188***	0.142***	0.097**	0.099**	0.004
	(0.032)	(0.031)	(0.031)	(0.032)	(0.033)
Customary authority	-0.093	-0.070	0.018	0.044	-0.016
	(0.052)	(0.050)	(0.050)	(0.053)	(0.055)
Treatment * Overall	-0.062	-0.048	-0.029	-0.042	-0.029
	(0.037)	(0.035)	(0.035)	(0.037)	(0.032)
Treatment * Customary	0.028	0.005	0.001	0.000	-0.025
	(0.063)	(0.060)	(0.060)	(0.063)	(0.056)
R2	0.029	0.103	0.167	0.188	0.462
Num.Obs.	2650	2650	2638	2526	2526
District FEs		X	X	X	X
Demographic controls			X	X	X
Geographic controls				X	X
Enumerator FEs					X

Note: The outcome variables are 'If people brought this conflict to the CLDMC, how likely do you think it is that the CLDMC would be able to resolve it peacefully?' (row one), 'If people brought this conflict to the village chief, how likely do you think it is that the village chief would be able to resolve it peacefully?' (row two) and 'How likely do you think it is that the parties to this dispute would have to pay the village chief in order to obtain a judgement?' (row three). Treatment indicates that the scenario described the CLDMC as having resolved a previous conflict in the village. Overall authority refers to the first principal component of the chiefly authority index; customary authority refers to the second principal component. Demographic variables include sex, respondents' position in the household, wealth, age group, education, English proficiency, and ethnicity; geographic controls include road density, cocoa suitability, coffee suitability, distance to the county capital, and terrain ruggedness (calculated within 25 kilometer radii of the village centroids, where applicable). All control variables are demeaned and interacted with treatment (Lin 2013). Regressions use OLS with standard errors clustered at the respondent level.

Table D2. Regression coefficients for figure 5 (scenarios)

	(1)	(2)	(3)	(4)	(5)
Likelihood the CLDMC could resolve the conflict					
Treatment	0.201**	0.202**	0.222***	0.197**	0.186***
	(0.065)	(0.065)	(0.064)	(0.064)	(0.052)
Overall authority	0.120***	0.125***	0.122***	0.155***	0.006
	(0.031)	(0.030)	(0.030)	(0.029)	(0.026)
Customary authority	-0.138***	-0.150***	-0.116**	-0.138***	0.090*
	(0.040)	(0.041)	(0.040)	(0.039)	(0.038)
Treatment * Overall	0.025	0.022	0.026	-0.010	0.027
	(0.039)	(0.039)	(0.039)	(0.038)	(0.031)
Treatment * Customary	-0.169**	-0.170**	-0.222***	-0.195***	-0.099*
	(0.058)	(0.058)	(0.058)	(0.058)	(0.050)
R2	0.073	0.083	0.131	0.155	0.381
Likelihood the Chief could resolve the conflict					
Treatment	-0.041	-0.036	-0.050	-0.040	-0.007
	(0.058)	(0.058)	(0.056)	(0.057)	(0.053)
Overall authority	0.204***	0.222***	0.214***	0.210***	0.126***
	(0.026)	(0.026)	(0.026)	(0.027)	(0.026)
Customary authority	-0.006	-0.026	-0.016	-0.018	-0.032
	(0.035)	(0.036)	(0.035)	(0.036)	(0.040)
Treatment * Overall	-0.008	-0.009	-0.023	-0.018	-0.039
	(0.035)	(0.034)	(0.036)	(0.038)	(0.035)
Treatment * Customary	-0.030	-0.036	0.021	0.011	0.033
	(0.056)	(0.055)	(0.057)	(0.059)	(0.055)
R2	0.073	0.089	0.132	0.142	0.226
Would have to pay the chief for a judgement?					
Treatment	-0.091	-0.063	-0.100	-0.109	-0.077
	(0.087)	(0.083)	(0.080)	(0.081)	(0.064)
Overall authority	0.112**	0.072*	0.053	0.049	-0.028
	(0.036)	(0.034)	(0.033)	(0.035)	(0.034)
Customary authority	-0.094	-0.073	0.002	0.031	-0.039
	(0.051)	(0.049)	(0.048)	(0.050)	(0.049)
Treatment * Overall	0.035	0.035	0.012	0.014	-0.018
	(0.048)	(0.045)	(0.045)	(0.047)	(0.039)
Treatment * Customary	-0.001	-0.007	0.016	-0.008	0.014
	(0.074)	(0.070)	(0.071)	(0.073)	(0.062)
R2	0.023	0.090	0.160	0.180	0.430
Num.Obs.	6625	6625	6595	6315	6315
District FEs		X	X	X	X
Demographic controls			X	X	X
Geographic controls				X	X
Enumerator FEs					X

Note: This table shows the regression coefficients used to generate the marginal effects in figure 5. Treatment indicates receiving a vignette describing the role of a CLDMC. Overall authority refers to the first principal component of the chiefly authority index; customary authority refers to the second principal component. Demographic variables include sex, respondents' position in the household, wealth, age group, education, English proficiency, and ethnicity; geographic controls include road density, cocoa suitability, coffee suitability, distance to the county capital, and terrain ruggedness (calculated within 25 kilometer radii of the village centroids, where applicable). Control variables are demeaned and interacted with treatment (Lin 2013). Regressions use OLS with standard errors clustered at the respondent level.

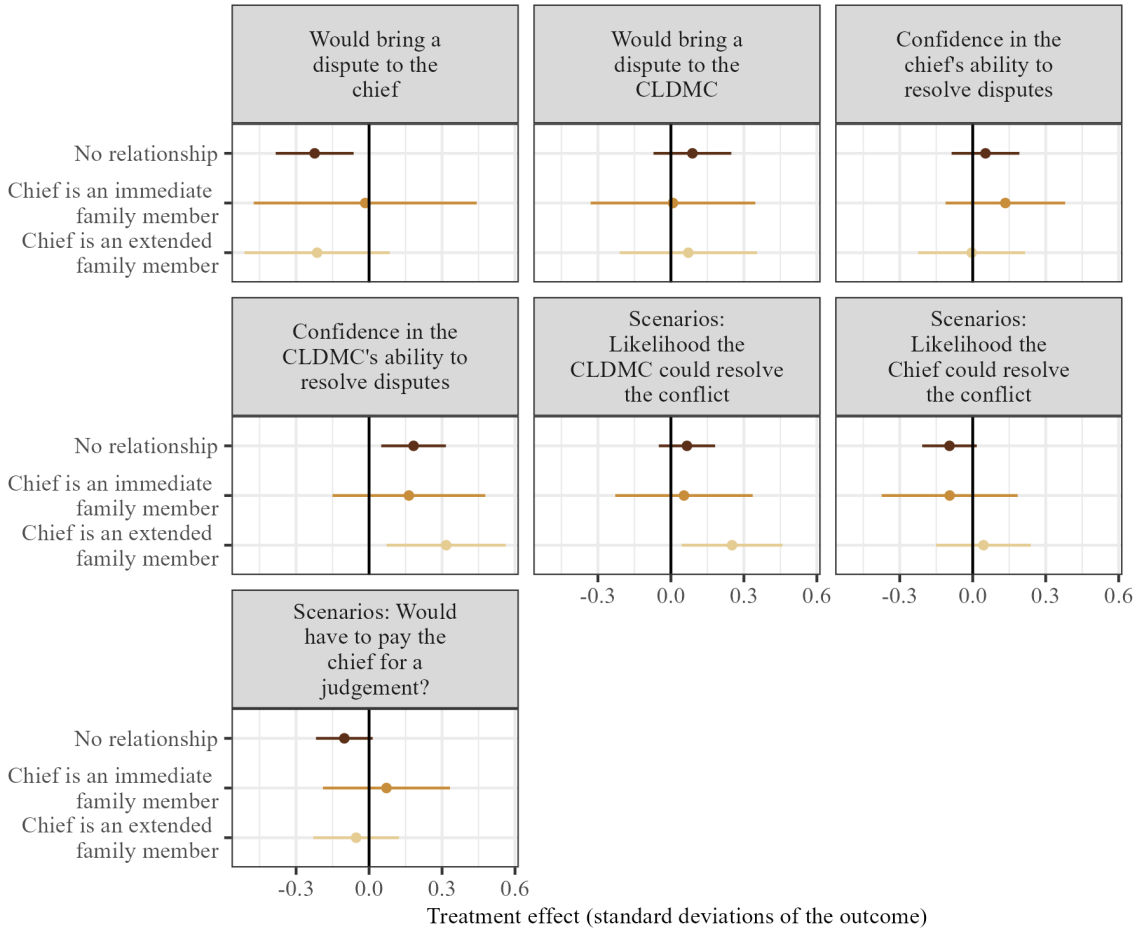
D.2 Social proximity to the chief

Figures D1 and D2 show how the effect of receiving the treatment varies across three levels of social proximity to the town chief: no relationship with the chief ($n = 856$), the chief is an extended family member ($n = 309$), and the chief is an immediate family member ($n = 160$).

Figure D1 tells a reasonably consistent story: the effect of the vignette treatment on respondents' trust in the town chief is concentrated among those who have no relationship with the chief—although the statistically significant results among this subgroup may be a function of the larger sample size. Among respondents with some family relationship with the chief, the vignette produced no effect on willingness to bring a dispute to the chief; among respondents with no relationship with the chief, receiving the CLDMC vignette is associated with a 0.22 standard deviation decrease in willingness to bring a dispute to the chief. We see no effects across subgroups in willingness to bring disputes to the CLDMC or confidence in the chief's ability to resolve disputes.

The vignette produced a statistically significant increase in confidence in the CLDMC's ability to resolve disputes only within respondents with no relationship with the chief or with the chief as an extended family member—however, figure D1 suggests that the difference between these three groups is not statistically significant. Rather, the effect is more precisely estimated within these two groups. We see no treatment effect on the scenarios outcomes in any of these three subsets.

Figure D1. Effects of the vignette treatment do not vary by the respondent's social proximity to their chief

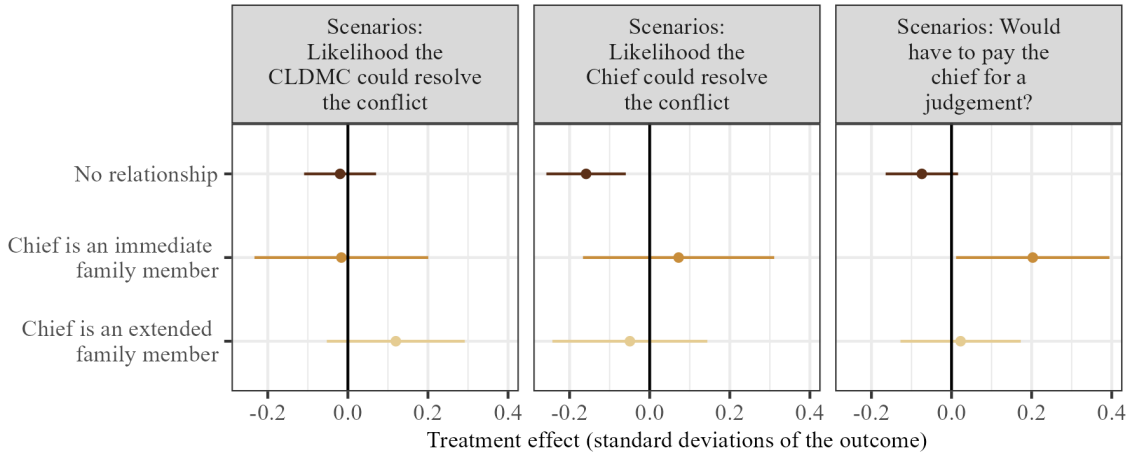


This figure shows the marginal effect of the vignette treatment variable on attitudes toward conflict resolutions and pooled responses to the five scenarios, broken out by the respondent's social proximity to the chief. All regressions use OLS with district fixed effects, along with demographic and geographic control variables (demeaned and interacted with treatment). Standard errors are robust or clustered at the respondent level (pooled responses to the scenarios).

Next, figure D2 shows the effect of the two-stage treatment, i.e. a CLDMC having previously resolved an unrelated conflict, by these groups. Across the board, we see no effect on the perceived likelihood of the CLDMC being able to resolve the conflict. On the other hand, the effect of this treatment on the likelihood the chief could resolve the

conflict is concentrated entirely among respondents with no relationship to the chief—where receiving the treatment is associated with a 0.16 standard deviation decrease in confidence the chief could resolve the conflict.

Figure D2. Effects of the CLDMC having previously resolved a conflict do not vary by the respondent's social proximity to their chief



This figure shows the marginal effect of the vignette treatment variable on attitudes toward conflict resolutions and pooled responses to the five scenarios, broken out by the respondent's social proximity to the chief. All regressions use OLS with district fixed effects, along with demographic and geographic control variables (demeaned and interacted with treatment). Standard errors are robust or clustered at the respondent level (pooled responses to the scenarios).

Putting these results together, the effect of both treatments on the authority of the chief seems to be concentrated in the 64 percent of respondents that report no relationship with their chief. The respondent's relationship with the chief does not appear to moderate the effects of treatment on trust in the CLDMC.

D.3 Distance to village centroid

Appendix D.2 shows heterogenous treatment effects by respondents' social proximity to the chief. In contrast, this appendix shows heterogenous treatment effects by respondents' *geographic* proximity to the chief. Villages in West Africa are often built in concentric rings. The lineage of the village founder tends to cluster in the central village; later arrivals take land around the outskirts of the village as farms fill in the available land (Bezares Calderón et al. 2026). Consequently, we pre-hypothesized that treatment effects would be stronger among respondents with greater distance between their household and the geographic center of the village.

I construct this variable using the distance between the GPS coordinates we capture for the respondent's survey location and the village centroid, i.e. the average of all GPS coordinates for respondents within a given village. I then normalize the distance using an inverse hyperbolic sine transformation. Enumerators were unable to record GPS coordinates for 215 households.

Tables D4, D5, and D6 show no heterogenous treatment effects. Respondents who are more distant to the village center—those who are likely to be newer arrivals in the village than those in the center—are not more receptive to treatments relative to those at the center of the village.

Table D4. Effect of vignette treatment on attitudes towards institutions are homogeneous by distance

	(1)	(2)	(3)	(4)	(5)
Would bring a dispute to the chief					
Treated	-0.046	-0.043	-0.068	-0.097	-0.068
	(0.061)	(0.062)	(0.068)	(0.072)	(0.073)
Distance (asinh)	-0.009	-0.006	-0.007	-0.012	-0.012
	(0.008)	(0.008)	(0.009)	(0.009)	(0.009)
Treatment * distance	0.003	0.002	0.007	0.014	0.008
	(0.013)	(0.013)	(0.014)	(0.015)	(0.015)
Num.Obs.	1110	1110	1105	1105	1105
R2	0.007	0.018	0.083	0.097	0.140
Would bring a dispute to the CLDMC					
Treated	0.000	-0.005	0.014	0.026	0.011
	(0.035)	(0.036)	(0.039)	(0.040)	(0.039)
Distance (asinh)	0.000	-0.002	-0.004	0.003	0.004
	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)
Treatment * distance	0.002	0.003	-0.001	-0.004	-0.001
	(0.007)	(0.008)	(0.008)	(0.008)	(0.008)
Num.Obs.	1110	1110	1105	1105	1105
R2	0.002	0.016	0.109	0.131	0.163
Confidence in the chief's ability to resolve disputes					
Treated	-0.104	-0.089	-0.012	0.023	0.090
	(0.180)	(0.182)	(0.196)	(0.209)	(0.199)
Distance (asinh)	-0.070*	-0.078**	-0.059*	-0.047	-0.031
	(0.028)	(0.029)	(0.030)	(0.033)	(0.033)
Treatment * distance	0.032	0.029	0.015	0.008	-0.006
	(0.039)	(0.039)	(0.041)	(0.044)	(0.042)
Num.Obs.	1109	1109	1104	1104	1104
R2	0.007	0.026	0.067	0.075	0.134
Confidence in the CLDMC's ability to resolve disputes					
Treated	0.168	0.206	0.011	-0.040	0.300
	(0.376)	(0.381)	(0.387)	(0.405)	(0.356)
Distance (asinh)	0.030	0.028	0.009	-0.019	0.004
	(0.057)	(0.058)	(0.060)	(0.064)	(0.055)
Treatment * distance	0.015	0.005	0.043	0.056	-0.005
	(0.076)	(0.078)	(0.079)	(0.083)	(0.073)
Num.Obs.	1097	1097	1092	1092	1092
R2	0.012	0.019	0.090	0.125	0.334
District FEs		X	X	X	X
Demographic controls			X	X	X
Geographic controls				X	X
Enumerator FEs					X

Note: The outcome variables are 'if somebody in your village had a dispute with a neighbor, to whom would they take their dispute?' (rows one and two), 'how confident are you in the village chief's ability to resolve conflicts within the community?' (row three), and 'How confident are you in the CLDMCs ability to resolve conflicts within the community?' (row four). Treatment indicates receiving a vignette describing the role of a CLDMC; distance indicates the distance in meters between a respondent's house and the village centroid (normalized using an inverse hyperbolic sine transformation). Demographic variables include sex, respondents' position in the household, wealth, age group, education, English proficiency, and ethnicity; geographic controls include road density, cocoa suitability, coffee suitability, distance to the county capital, and terrain ruggedness (calculated within 25 kilometer radii of the village centroids, where applicable). All control variables are demeaned and interacted with treatment (Lin 2013). Regressions use OLS with HC1-robust standard errors.

Table D5. Effect of vignette treatment on conflict scenarios are homogeneous by distance

	(1)	(2)	(3)	(4)	(5)
Likelihood the CLDMC could resolve the conflict					
Treated	0.422	0.461	0.294	0.212	0.696*
	(0.398)	(0.403)	(0.399)	(0.406)	(0.341)
Distance (asinh)	0.098	0.093	0.090	0.068	0.072
	(0.060)	(0.061)	(0.060)	(0.063)	(0.052)
Treatment * distance	-0.057	-0.071	-0.035	-0.018	-0.109
	(0.080)	(0.081)	(0.081)	(0.083)	(0.070)
R2	0.006	0.025	0.085	0.106	0.382
Likelihood the Chief could resolve the conflict					
Treated	-0.051	-0.043	-0.181	-0.147	-0.038
	(0.355)	(0.356)	(0.353)	(0.364)	(0.340)
Distance (asinh)	-0.059	-0.064	-0.107*	-0.118*	-0.076
	(0.051)	(0.051)	(0.049)	(0.054)	(0.049)
Treatment * distance	-0.002	-0.004	0.020	0.020	0.004
	(0.074)	(0.075)	(0.073)	(0.077)	(0.071)
R2	0.002	0.009	0.080	0.099	0.211
Would have to pay the chief for a judgement?					
Treated	0.184	0.366	0.039	-0.010	-0.075
	(0.525)	(0.495)	(0.487)	(0.518)	(0.405)
Distance (asinh)	0.060	0.122	0.024	0.029	0.090
	(0.078)	(0.076)	(0.073)	(0.078)	(0.062)
Treatment * distance	-0.064	-0.092	-0.029	-0.021	0.004
	(0.109)	(0.103)	(0.101)	(0.107)	(0.084)
R2	0.002	0.075	0.151	0.173	0.429
Num.Obs.	5550	5550	5525	5525	5525
District FEs		X	X	X	X
Demographic controls			X	X	X
Geographic controls				X	X
Enumerator FEs					X

Note: The outcome variables are 'If people brought this conflict to the CLDMC, how likely do you think it is that the CLDMC would be able to resolve it peacefully?' (row one), 'If people brought this conflict to the village chief, how likely do you think it is that the village chief would be able to resolve it peacefully?' (row two) and 'How likely do you think it is that the parties to this dispute would have to pay the village chief in order to obtain a judgement?' (row three). Treatment indicates receiving a vignette describing the role of a CLDMC; distance indicates the distance in meters between a respondent's house and the village centroid (normalized using an inverse hyperbolic sine transformation). Demographic variables include sex, respondents' position in the household, wealth, age group, education, English proficiency, and ethnicity; geographic controls include road density, cocoa suitability, coffee suitability, distance to the county capital, and terrain ruggedness (calculated within 25 kilometer radii of the village centroids, where applicable). All control variables are demeaned and interacted with treatment (Lin 2013). Regressions use OLS with standard errors clustered at the respondent level.

Table D6. Effects of the CLDMC resolving a prior conflict are homogeneous by distance

	(1)	(2)	(3)	(4)	(5)
Likelihood the CLDMC could resolve the conflict					
Treated	-0.041	0.092	-0.057	-0.100	-0.100
	(0.315)	(0.314)	(0.321)	(0.327)	(0.327)
Distance (asinh)	0.067	0.069	0.050	0.031	0.031
	(0.055)	(0.056)	(0.057)	(0.059)	(0.059)
Treatment * distance	0.011	-0.017	0.012	0.020	0.020
	(0.064)	(0.064)	(0.066)	(0.068)	(0.068)
R2	0.002	0.019	0.073	0.098	0.098
Likelihood the Chief could resolve the conflict					
Treated	-0.037	0.004	0.013	0.104	0.104
	(0.320)	(0.323)	(0.334)	(0.346)	(0.346)
Distance (asinh)	-0.053	-0.047	-0.081	-0.080	-0.080
	(0.052)	(0.052)	(0.052)	(0.055)	(0.055)
Treatment * distance	-0.016	-0.025	-0.026	-0.041	-0.041
	(0.066)	(0.067)	(0.069)	(0.072)	(0.072)
R2	0.004	0.018	0.086	0.107	0.107
Would have to pay the chief for a judgement?					
Treated	0.616	0.460	0.254	0.229	0.229
	(0.411)	(0.389)	(0.406)	(0.420)	(0.420)
Distance (asinh)	0.052	0.081	0.004	0.007	0.007
	(0.073)	(0.071)	(0.073)	(0.075)	(0.075)
Treatment * distance	-0.125	-0.092	-0.054	-0.048	-0.048
	(0.086)	(0.081)	(0.084)	(0.087)	(0.087)
R2	0.001	0.084	0.151	0.174	0.174
Num.Obs.	2220	2220	2210	2210	2210
District FEs		X	X	X	X
Demographic controls			X	X	X
Geographic controls				X	X
Enumerator FEs					X

Note: The outcome variables are 'If people brought this conflict to the CLDMC, how likely do you think it is that the CLDMC would be able to resolve it peacefully?' (row one), 'If people brought this conflict to the village chief, how likely do you think it is that the village chief would be able to resolve it peacefully?' (row two) and 'How likely do you think it is that the parties to this dispute would have to pay the village chief in order to obtain a judgement?' (row three). Treatment indicates that the scenario described the CLDMC as having resolved a previous conflict in the village. Distance indicates the distance in meters between a respondent's house and the village centroid (normalized using an inverse hyperbolic sine transformation). Demographic variables include sex, respondents' position in the household, wealth, age group, education, English proficiency, and ethnicity; geographic controls include road density, cocoa suitability, coffee suitability, distance to the county capital, and terrain ruggedness (calculated within 25 kilometer radii of the village centroids, where applicable). All control variables are demeaned and interacted with treatment (Lin 2013). Regressions use OLS with standard errors clustered at the respondent level.

D.4 Prior experience with CLDMCs

This section explores heterogenous treatment effects by respondent's prior exposure to and knowledge of CLDMCs. I sort respondent's into three categories: those that do not know what a CLDMC is ($n = 620$), those that know what a CLDMC is but do not think there is one in their village ($n = 461$), and those that report a CLDMC exists in their village ($n = 244$).

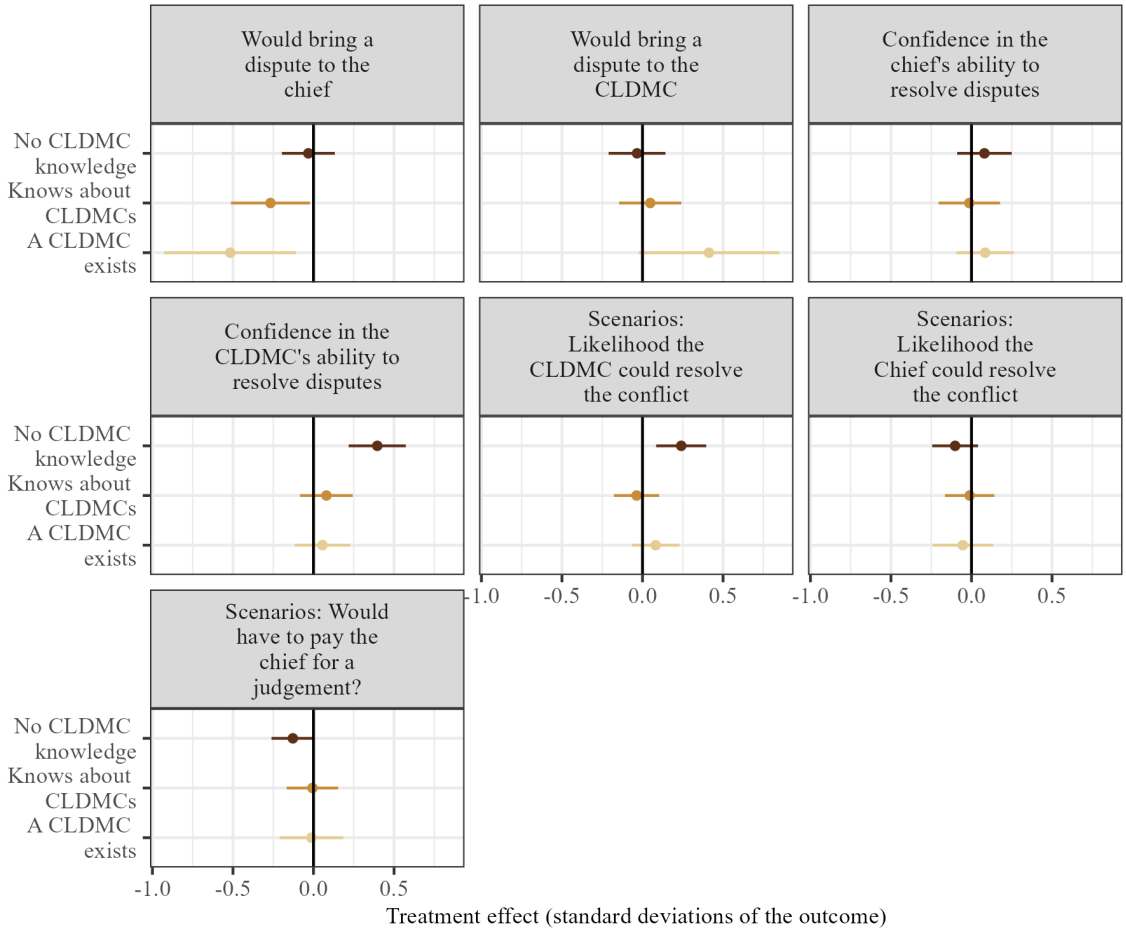
In the pre-analysis plan, I hypothesized that treatment effects for the vignette and sequential treatments would (1) be smaller among respondents with less familiarity with the CLDMC and (2) be smaller among respondents who report that their village already has a CLDMC. Essentially, both treatments update respondents' priors about the effectiveness and prevalence of CLDMCs. If respondents with greater exposure to CLDMCs have stronger priors, then it makes sense that the effect of treatment would be weaker.

Figures D3 and D4 show a slightly more nuanced version of this story. The negative effect of the vignette treatment on willingness to bring a non-specific dispute to the chief was stronger among respondents who were more familiar with CLDMCs, as was the positive effect of the vignette on willingness to bring a dispute to the CLDMC. The vignette treatment increased respondents' willingness to bring disputes to the CLDMC most among those who reported a CLDMC existed.

However, the effect of the vignette treatment on respondents' confidence that a CLDMC could resolve a conflict were strongest among respondents with no prior knowledge of CLDMCs. Together, these results indicate that respondents unfamiliar with CLDMCs increased their confidence in CLDMCs after treatment—but were not yet willing to actually bring a dispute to the CLDMC unless they had some experience with the institution.

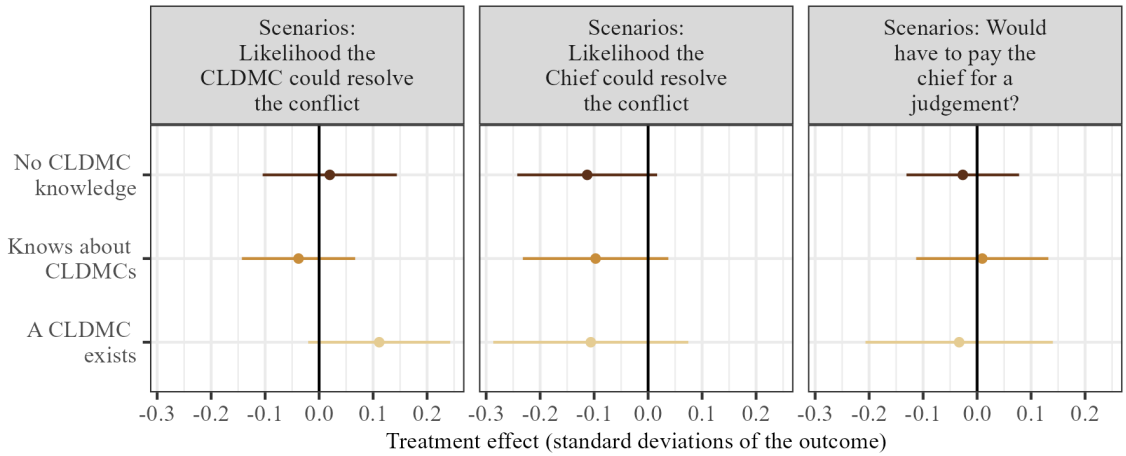
Lastly, figure D4 shows no heterogeneous treatment effects of the two-stage experiment on attitudes towards CLDMCs or town chief's ability to resolve conflicts.

Figure D3. Effects of the vignette treatment do not vary by the respondent's prior familiarity with CLDMCs



This figure shows the marginal effect of the vignette treatment variable on attitudes toward conflict resolutions and pooled responses to the five scenarios, broken out by the respondent's familiarity with CLDMCs. All regressions use OLS with district fixed effects, along with demographic and geographic control variables (demeaned and interacted with treatment). Standard errors are robust or clustered at the respondent level (pooled responses to the scenarios).

Figure D4. Effects of the CLDMC having previously resolved a conflict do not vary by the respondent's prior familiarity with CLDMCs



This figure shows the marginal effect of the vignette treatment variable on attitudes toward conflict resolutions and pooled responses to the five scenarios, broken out by the respondent's familiarity with CLDMCs. All regressions use OLS with district fixed effects, along with demographic and geographic control variables (demeaned and interacted with treatment). Standard errors are robust or clustered at the respondent level (pooled responses to the scenarios).

D.5 Conditional average treatment effects

In addition to these pre-registered sources of treatment effect heterogeneity, the pre-analysis plan also specified that I would calculate conditional average treatment effects (CATEs). These CATEs capture unit specific treatment effects as a function of a vector of controls X, such that:

$$\tau(x) = \mathbb{E}\left[Y_i^{(1)} - Y_i^{(0)} | X_i = x\right]$$

Following Wager and Athey (2018), I use a series of causal forests to estimate these CATEs where the prediction matrix includes all demographic and geographic control variables, as well as all moderating variables we mention elsewhere in appendix D. I then test for the presence of heterogeneous treatment effects by regressing each outcome on (1) the average of all CATEs and (2) the CATE for the individual outcome. If the average of CATEs predicts the outcome better than the individual CATEs, then we fail to reject the null hypothesis of homogeneous treatment effects. I can also identify variable importance by ranking the number of times the forest splits on a given variable, weighing for the level at which the split occurred.

For all four of the attitudinal outcomes (i.e. those at the respondent level), we fail to reject the null hypothesis of homogeneous treatment effects using the omnibus test described above. However, it is nevertheless informative that the variable importance test suggests that the two factors driving the greatest shares of treatment effect heterogeneity are the first and second principal components of the chiefly authority indices we explore in appendix D.1.

For the questions following the specific scenarios, we are able to reject the null hypothesis of homogeneous effects for the 'If people brought this conflict to the CLDMC, how likely do you think it is that the CLDMC would be able to resolve it peacefully?' and 'How likely do you think it is that the parties to this dispute would have to pay the town chief in order to obtain a judgement?' outcomes. Table D7 shows the five variables which drive the greatest amounts of variation in response to these questions. For the CLDMC resolving the conflict, the second principal component of chiefly authority drives the plurality of variation. For the 'would have to pay the chief' outcome, terrain ruggedness,

followed by the first principal component of chiefly authority, drive the variation.

Table D7. Most significant variables for predicting conditional average treatment effects for the vignette treatments

	CLDMC could resolve		Would pay chief	
Rank	Variable	Pct. explained	Variable	Pct. explained
1	Chiefly authority (2nd PCA)	0.21	Distance to village center	0.17
2	Distance to county capital	0.14	Terrain ruggedness	0.11
3	Distance to village center	0.10	Chiefly authority (2nd PCA)	0.10
4	Road density	0.08	Chiefly authority (1st PCA)	0.10
5	Wealth index (1st PCA)	0.07	Road density	0.09

Note: This table shows what variables drive treatment effect heterogeneity for the vignette treatment on two questions: (1) 'If people brought this conflict to the CLDMC, how likely do you think it is that the CLDMC would be able to resolve it peacefully?' and (2) 'How likely do you think it is that the parties to this dispute would have to pay the village chief in order to obtain a judgement?' Variable importance is calculated by weighing the sum of how many times the forest split on a feature by the depth of each split.

For the two-stage treatment, I reject the null hypothesis of treatment effect homogeneity only for the 'chief could resolve' outcome. The largest drivers of heterogeneity for this outcome are coffee suitability, road density, and cocoa suitability. Lastly, figure D5 shows how the predicted CATEs for these three outcomes vary by these various sources of treatment effect heterogeneity.

The outcomes discussed in the above sections of this appendix—chiefly authority and geographic proximity to the chief—are some of the key drivers of heterogeneity; I do not discuss them again here. However, table D8 introduces a new source of treatment effect heterogeneity: the effect of the sequential treatment is strongly increasing (i.e. is more negative) in both cocoa and coffee suitability. In other words, respondents are quicker to distrust their chief in areas with the potential for profitable cash crops. This treatment effect is also increasing in road density and decreasing in terrain ruggedness. Together, these results suggest that the introduction of formal institutions will erode informal authority more strongly in villages which are less remote and more embedded in commercial value chains. This finding is in line with existing literature which links the emergence of formal property rights with the returns to cash-crop agriculture (Ribar 2026) and with rising land values more generally (Libecap 1989). Interestingly, this set

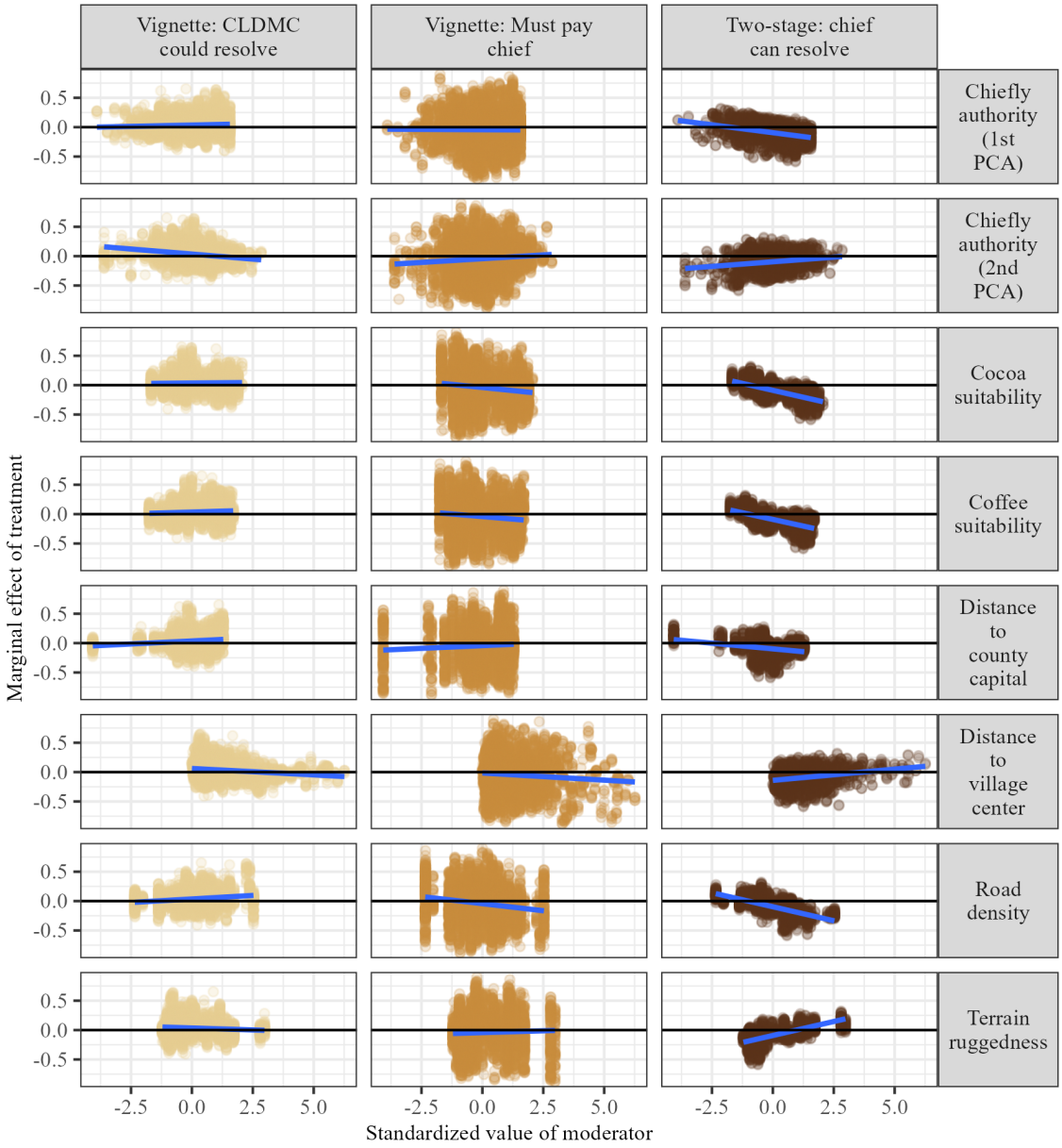
Table D8. Most significant variables for predicting conditional average treatment effects for the two-stage treatments

	Chief could resolve	
Rank	Variable	Pct. explained
1	Road density	0.17
2	Chiefly authority (1st PCA)	0.14
3	Cocoa suitability	0.12
4	Chiefly authority (2nd PCA)	0.11
5	Coffee suitability	0.08

Note:
This table shows what variables drive treatment effect heterogeneity for the two-stage treatment on responses to: 'If people brought this conflict to the village chief, how likely do you think it is that the village chief would be able to resolve it peacefully? Variable importance is calculated by weighing the sum of how many times the forest split on a feature by the depth of each split.

of 'embeddedness' variables does not meaningfully condition the vignette treatments.

Figure D5. Distribution of predicted conditional average treatment effects by sources of treatment effect heterogeneity



This figure shows the the predicted treatment effects for the three outcomes for which an omnibus test indicates the presence of treatment effect heterogeneity: (1) the effect of the vignette treatment on the chief being able to resolve the conflict; (2) the effect of the vignette treatment on needing to pay the chief; and (3) the effect of the sequential treatment on the chief being able to resolve the conflict. The horizontal axis shows the distribution of the variable by which the treatment effect varies; this variable is demeaned and normalized using its standard deviation. The vertical axis shows the predicted CATE. The blue line uses OLS to calculate a line of best fit.

E Divergences from the pre-analysis plan

The full pre-analysis plan (PAP) for this research is available at the Open Science Foundation. In this appendix, I overview the areas in which this research diverged from the PAP.

The PAP anticipated surveying approximately 1,300 respondents across roughly 60 villages in the same six districts. In the field, I ultimately spread a similar total sample—1,325 respondents—across 121 villages, roughly doubling the number of village clusters relative to the PAP. The change reflects the smaller-than-expected populations in many of the sampled villages, which required us to sample additional villages to make the quotas.

The PAP committed to clustering standard errors at the village level throughout, on the logic that chiefly authority is effectively assigned at the village level. However, in the paper I follow Abadie et al. (2023) in clustering standard errors at the level of treatment, which in this case is the respondent. Consequently, I report HC1-robust standard errors for the primary direct-question results in table 3, and cluster standard errors at the respondent level for the scenario-based analyses. This deviation from the PAP does not change the statistical significance of any result in tables 3, B1, B2, or B3, except for the effect of the vignette treatment on the outcomes related to the one-stage inheritance dispute in table B2. This change does not affect the substantive interpretation of my results.

The direct question asking respondents to whom they would bring a dispute originally offered nine separate answer categories, including religious leader, the police, and the county superintendent. Figure 4 aggregates rarely chosen categories—religious leader, police, or county superintendent—into an 'other' category.

Lastly, the PAP's hypothesis on geographic proximity to the village centroid was misstated: it predicted stronger treatment effects among respondents living closer to the centroid, when the underlying logic—that founding lineages cluster centrally while later, more socially peripheral arrivals settle at the outskirts—in fact implies the opposite. Appendix D.3 tests and reports the corrected prediction, that treatment effects should be stronger among respondents farther from the village centroid.

Appendix References

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