

Working Paper 190

Building Fiscal Capacity with Traditional Political Institutions: Experimental and Qualitative Evidence from Sierra Leone

Kevin Grieco

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Kevin Grieco

Summary

How can weak states build fiscal capacity? I argue that governments in weak states can build fiscal capacity by collaborating with non-state, traditional political institutions (TPIs). Using a mix of experimental and qualitative evidence, I show that this collaboration increases citizens' compliance because TPIs possess legitimacy and coercive capacity. Collaborating with the local government in Kono District, Sierra Leone, I embedded an experiment in their campaign to collect property taxes. Potential taxpayers were shown awareness videos that varied in their content, particularly in terms of whether and how their local paramount chief characterised his involvement in tax collection. I find that state collaboration with TPIs increases a preregistered proxy of citizens' compliance with a newly introduced property tax and that TPIs' authority stems from both their legitimacy and coercive capacity. Qualitative evidence from 300 semi-structured interviews adds a richer description of legitimacy and coercive capacity in my context. I argue, based on qualitative evidence, that legitimacy and coercion are complementary mechanisms of TPIs' authority enabling them to effectively coordinate collective action to produce local public goods in the absence of the state.

Keywords: coercion, deterrence, fiscal capacity, legitimacy, local government, non-state actors, state-building, traditional political institutions, tax compliance.

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Acronyms

KDC	Kono District Council
PAP	Pre-analysis plan
TPI	Traditional political institutions

1. Introduction

While it is widely acknowledged that fiscal capacity is crucial for economic development (Besley and Persson 2011), many poor countries are trapped in a low-capacity equilibrium: governments lack the capacity to collect taxes and, therefore, lack the tax revenues to invest in more capacity. Existing literature in economics and political science offers one pathway out of this trap: improving the effectiveness of state institutions. However, little attention has been given to the traditional political institutions (TPIs) that coexist alongside governments throughout the developing world (Holzinger, Kern and Kromrey 2016), which govern important parts of day-to-day life (Baldwin 2016). This paper explores whether weak states can increase their fiscal capacity by collaborating with TPIs.

One way that state collaboration with TPIs might increase fiscal capacity is by increasing citizens' compliance. On the one hand, if TPIs possess coercive capacity or are seen by local populations as legitimate (Logan 2013), collaboration may boost compliance with the government's tax demands. On the other hand, if traditional leaders possess little independent authority, or they wield their authority despotically (Mamdani 1996), collaboration may be ineffective or even backfire.¹

This article examines the impact of collaboration between state officials and TPIs on citizens' compliance with a newly introduced property tax in rural Sierra Leone. Collaborating with the local government in Kono District, I embedded an experiment in their campaign to collect property taxes. Potential taxpayers were shown awareness videos that varied in content, particularly in terms of whether and how their local paramount chief characterised his² involvement in tax collection. Using survey data from 1,752 property owners across 118 villages and five chiefdoms, I estimated the effects of notifying property owners about the state's collaboration with their TPI. I find that alerting property owners about the collaboration significantly increases a preregistered index of tax compliance measures, which comprised two survey-based indicators and the outcome of a

¹ I use the term 'traditional leaders' to refer generically to the political leaders of TPIs. In Sierra Leone, as in many other countries, these leaders are called 'chiefs'.

² The use of gendered language in this paper is intentional, to convey that chiefs in Kono, and Sierra Leone generally, are overwhelmingly men. While women chiefs are not impossible, they are rare. In Kono, where the study takes place, the 14 highest level chiefs (paramount chiefs) are all men. There are hundreds of village level chiefs, so while it is likely that some of them are women, this is not common.

behavioural game. I also find that collaboration increases property owners' belief that they *should* pay taxes.³

To assess whether TPIs' authority stems from legitimacy or coercion, I created additional versions of the tax awareness video that manipulated the paramount chiefs' statements to emphasise their legitimacy (e.g., accountability to their constituents) or their coercive powers. I find experimental evidence that TPIs' authority stems from both their legitimacy and their coercive capacity, though the evidence from primary experimental tests is stronger for the coercion mechanism. Priming property owners to TPIs' legitimacy increases my measure of tax compliance above and beyond the effect of collaboration; however, while the size of this effect is only 18 per cent smaller than the size of the collaboration effect, this increase is not statistically significant (t -statistic = 1.33). In line with arguments that emphasise coercive capacity as a source of TPIs' authority, I find that priming respondents to think about punishment for noncompliance increases the measure of tax compliance, above and beyond the effect of collaboration. The size of this effect is roughly the size of the collaboration effect and is statistically significant.

Secondary experimental outcomes and qualitative data from 300 semi-structured interviews (conducted in 29 villages) provide additional evidence for both legitimacy and coercion mechanisms. These data suggest that TPIs' legitimacy is rooted both in their governance *performance* and their *processes* of inclusive decision making; they also suggest that TPIs' coercive capacity typically manifests in chiefs' use of fines to benignly enforce local laws, rather than chiefs' abuse of systems of local governance.

Based on qualitative data, I argue that TPIs' legitimacy and coercive capacity can be complementary sources of their authority. TPIs derive their legitimacy, in part, from their ability to organise collective action that produces local public goods. In the face of a free-rider problem, organising collective action requires the ability to punish noncompliers. Therefore, TPIs' coercive capacity and their legitimacy are complementary because without coercive capacity, TPIs could not organise the public goods that give them legitimacy; and without legitimacy, TPIs are not strong enough to secure compliance through coercion alone. This argument implies that when TPIs use coercion in a way that detracts from the public good, they diminish their legitimacy and their ability to secure compliance. To illustrate the plausibility of this argument, I show that the state's collaboration with TPIs has less impact on citizens' compliance in chiefdoms where I document systematic complaints regarding TPIs' enforcement of local laws.

³ In the tax compliance literature, this belief is often referred to as tax morale.

This research contributes to the literature on fiscal capacity. Influential accounts of the historical development of fiscal capacity can be split into two bins. First, war making, and the external threat it poses, creates incentives for leaders to invest in extractive capacity, winnows out weak states, and generates a common interest (i.e., military victory or defence) that society is willing to contribute to (Tilly 1990; Doner, Ritchie and Slater 2005; Besley and Persson 2008). However, as Herbst (1990) notes, these forces have been largely absent in modern Africa due to the stability of its state system.⁴ Second, in elite bargaining theories, leaders trade political rights for tax revenues (e.g., North and Weingast 1989; Bates and Lien 1985). Yet, in contemporary democracies, where citizens already possess (*de jure*) property and political rights, it is unclear if political leaders have sufficient leverage to initiate these bargains. What strategies can state leaders in contemporary democracies employ to build capacity? To date, the literature has attempted to explain what makes bureaucracies, and the state agents they comprise, more effective. One set of scholars has focused on improving the performance of state agents by solving principal–agent problems through recruitment, monitoring, and incentive strategies (for reviews, see Finan, Olken and Pande 2017; Brierley *et al.* 2023). Others have investigated how bureaucrats’ relationship with society (i.e., their ‘embeddedness’) impacts their effectiveness (e.g., Evans 1989; Bhavnani and Lee 2018).⁵

I contribute to the literature on fiscal capacity by showing that governments can better achieve their goals – in this case tax collection – by collaborating with non-state, traditional political institutions. Most similar to this project is Balan *et al.* (2022), who employ neighbourhood chiefs (*chefs d’avenue*) to collect taxes in urban DRC. They find that these local elites collect more revenues, because they know the people in their neighbourhood and can better target households with a higher propensity to pay. This aligns with my findings that non-state actors can be effectively engaged in tax collection. Our work differs in that the neighbourhood chiefs under study in Balan *et al.* (2022) are not leaders within non-state *political* institutions: for example, they cannot make laws, impose fines, or collect taxes independent of the state.⁶ Gottlieb, LeBas and Magat (2021) also study the role of non-state actors in tax collection, but again, the local intermediaries they study

⁴ Relative to the tumultuous state system of medieval Europe, which is the context for most studies in the bellicist tradition.

⁵ See Pepinsky, Pierskalla and Sacks (2017) for a review focused on the social embeddedness of ‘street-level’ state agents. Besley *et al.* (2022) reviews these literatures together.

⁶ On the inability of *chefs d’avenue* to enforce tax compliance, the authors note that it is ‘unlikely that chiefs would have more credibly threatened official sanction [i.e., fines and legal consequences]’ than state agents (Balan *et al.* 2022: section 7.3).

are not leaders of non-state political institutions.⁷ To my knowledge, this paper is the first experimental investigation of state collaboration with TPIs during tax collection.

More generally, this paper adds to research exploring the opportunities for collaboration between state actors (or funder agencies) and non-state actors (Buur and Kyed 2007). Scholars have explored these types of collaborative relationships for targeting beneficiaries for social assistance programmes (Basurto, Dupas and Robinson 2020; Alatas *et al.* 2019), distributing development aid (Carlson and Seim 2020), and implementing and coordinating development projects (Casey *et al.* 2018; Voors *et al.* 2018).

This research also contributes to the literature on traditional political institutions. Recent research has demonstrated the central role played by contemporary TPIs in many countries in sub-Saharan Africa, where they impact local development outcomes (Acemoglu, Reed and Robinson 2014; Baldwin 2019), mobilise votes during elections (De Kadt and Larreguy 2018; Nathan 2019; Brierley and Ofosu 2023), and influence local governance (Baldwin 2016). Indeed, Baldwin and Holzinger (2019) estimate that 83 per cent of the population of sub-Saharan Africa is governed, at least in part, by TPIs. Despite their importance, we have little understanding of the source of TPIs' authority – why do people consent to demands and rulings issued by their traditional leaders?⁸ As I elaborate below, the literature offers two diametrically opposed models of TPIs, painting them as either unaccountable despots that govern through coercion, or legitimate institutions whose authority is rooted in constituents' consent. To my knowledge, this paper is the first to test and horse race these arguments experimentally.⁹

⁷ These authors investigate the impact of business formalisation appeals made by representatives from local market associations (whom they refer to as 'local intermediaries') vis-a-vis state agents.

⁸ A notable exception is Brierley and Ofosu (2023), who investigate the mechanisms behind paramount chiefs' influence over vote choice in Ghana. They argue this influence works through a signalling mechanism where voters exposed to chiefs' candidate endorsements update positively about candidate characteristics and expected performance. This aligns with my finding that legitimacy is a source of TPIs' authority. In contrast with my findings, they find no evidence that chiefs' endorsements influence vote choice through coercive channels. This difference is plausibly explained by differences in the nature of the outcomes we study: chiefs (whether in Ghana or in Sierra Leone) do not observe vote choice, whereas in Sierra Leone chiefs have mechanisms in place to monitor compliance with tax demands.

⁹ Note that the test of mechanisms in Brierley and Ofosu (2023) is not experimental.

2. Theory: the sources of TPIs' authority and the impact of collaboration

In this project, I explore whether the state can increase citizens' compliance with tax collection efforts by collaborating with TPIs. Important work in political science and adjacent fields discusses the authority and capacity of TPIs. This research generates divergent predictions about the impact of collaboration on tax compliance.

There are at least two good reasons to believe that collaboration will increase citizens' tax compliance. First, individuals might voluntarily comply with TPIs' directives because these institutions are perceived as legitimate (Logan 2013). Scholars have long argued that legitimacy – the belief that political actors or institutions have the 'right to rule' – influences compliance with rules, regulations, or directives put forward by political authorities (Rousseau 1762; Beetham 2013). Support for this argument is found in empirical work that links legitimacy (or related concepts such as political trust) to citizens' compliance with the police and courts (Tyler 2006), military service demands (Levi 1997), taxes (Levi 1988), and health regulations (Bargain and Aminjonov 2020).¹⁰

One reason why citizens may perceive TPIs as legitimate is because they allow citizens input in policy making (sometimes called 'process legitimacy'). TPIs often contain elements of direct democracy (Skalnik 1996) and have inclusive and transparent decision-making processes (Baldwin and Holzinger 2019). Other scholars argue that TPIs' legitimacy stems from their performance.¹¹ For example, TPIs maintain public order and political stability (Kramer 2016), preside over systems of customary law that many people perceive as fair (Sawyer 2008), help their communities obtain important services from government (Williams 2010), and organise local input (e.g., labour and materials) to produce local public goods (e.g., road maintenance) (Baldwin 2019). Consistent with the idea that TPIs are perceived as legitimate, survey results from 31 African countries (Afrobarometer, round 8, 2020) show that traditional leaders are more trusted, seen as less corrupt, have higher approval ratings, and are perceived as better

¹⁰ On political trust see Levi and Stoker (2000).

¹¹ See Keele (2007) on the link between governing performance and citizens' trust in government, which is often linked to citizens' willingness to comply with government directives. As Hetherington and Rudolph (2008) point out, *perceptions* of government performance also matter.

listeners than elected officials. Further, 51 per cent of the respondents said they would like to see these institutions have more influence in local governance, while only 13 per cent of respondents said they would like to see them have less influence (Logan and Amakoh 2022).¹²

Second, collaboration with TPIs may increase tax compliance because they possess the coercive capacity to deter evasion (Allingham and Sandmo 1972; Kleven *et al.* 2011). Indeed, coercive capacity is often included within the definition of TPIs, where the assumption is that they administer and enforce a system of customary law (Holzinger *et al.* 2016), typically through a network of subchiefs (Manning 2009).¹³ While TPIs' use of their coercive capacity may often be benign, leaders' abuse of their coercive capacity is a dominant theme in the literature. In Mamdani's (1996) influential account, colonial governments undermined existing accountability mechanisms within indigenous political institutions and enabled traditional leaders to become 'decentralized despots'. For many scholars, TPIs' authority stems from their willingness to abuse their central position in systems of local governance (Acemoglu *et al.* 2014; Fanthorpe 2004). Most notably, scholars have documented traditional leaders' interference and bias in both local dispute resolution mechanisms (Mokuwa *et al.* 2011; Maru 2006) and decisions regarding land allocation (Ntsebeza 2005; Goldstein and Udry 2008; Koter 2013; Acemoglu *et al.* 2014). Following these accounts, state collaboration with TPIs may increase tax compliance because individuals fear that noncompliance will be punished with bias in future decisions regarding law or land. This discussion motivates the following hypotheses:

H1: Collaboration between state leaders and TPIs increases citizens' compliance with state tax demands.

H2: TPIs' legitimacy enables them to obtain citizens' compliance with state tax demands.

H3: TPIs use (the threat of) coercion to obtain citizens' compliance with state tax demands.

We have little evidence to evaluate whether state collaboration with TPIs increases citizens' compliance with state policy. If governments could increase tax compliance by collaborating with TPIs, we might expect to see more instances of such collaboration across the continent. Indeed, there are reasons to doubt that government collaboration with TPIs increases tax compliance. By collaborating

¹² The trust gap is widening. While trust in elected officials has declined since the 2008/2009 survey rounds, trust in traditional leaders has held steady.

¹³ Holzinger *et al.* (2016) note that their concept of traditional governance includes, following Fukuyama (2013), the 'ability to make and enforce rules'.

with TPIs, the state is attempting to harness TPIs' authority over local populations. However, it is not clear that TPIs' authority can be leveraged to secure compliance with state policy. First, if citizens' compliance with TPIs' directives stems from direct involvement in policy making, citizens may be less willing to comply with TPIs' directives to adhere to a government policy that citizens had no part in crafting. Second, TPIs may possess limited coercive capacity independent of the state. In this paper, I investigate collaboration in a setting where the state's own agents (i.e., local government officials) are already making tax demands. If TPIs' coercive capacity ultimately rests with the state, collaboration may not affect citizens' perceptions regarding sanctions for noncompliance.

Moreover, collaboration may send signals to citizens that cause them to update their perceptions of the state's capacity. By informing citizens that they are collaborating with TPIs, the state may be signalling their low capacity to citizens, undercutting citizens' compliance. Finally, in settings where trust in state leaders is relatively low, collaboration may also send signals about the quality of state actors and their willingness to work in citizens' interest. On the one hand, if TPIs are despotic and abusive towards local populations, collaboration may cause citizens to update negatively about the quality of state actors, undermining compliance. On the other hand, if TPIs are legitimate and well respected, collaboration may send a positive signal about the quality of state actors, boosting compliance. In summary, while the existing literature establishes TPIs' local authority, it is unclear whether the state can leverage this authority to secure compliance with state policy.

3. Context: TPIs and property taxation in Sierra Leone

Most of Sierra Leone (but for the peninsula that includes the capital city) is divided into 190 chiefdoms. Each chiefdom – while also under the jurisdiction of the state (both central and local governments) is governed by a chiefdom council and a group of hierarchically organised chiefs. The top traditional political authority in each chiefdom is the paramount chief, who is elected for life by the chiefdom’s elite, with candidates drawn from a restricted set of ruling families (see Reed and Robinson 2013). Chiefdoms are further divided into sections that contain a number of villages. Sections and villages are headed by section chiefs and village chiefs, respectively.

TPIs in Sierra Leone are relevant for local governance, an important scope condition for my argument. In a recent Afrobarometer survey (Round 8, conducted 2020) most rural respondents in Sierra Leone reported that TPIs have ‘some’ or ‘a lot’ of influence over local governance (92 per cent), dispute resolution (95 per cent) and land allocation (78 per cent). Sierra Leone is a good context to test my hypotheses because existing evidence is mixed about the source of TPIs’ authority, which also generates an ambiguous prediction about the effect of collaboration. On the one hand, influential accounts about the causes of the 11-year internal war point to the coercive and authoritarian chieftaincy system and its control over local resources (e.g., land and labour) (Richards 1996, 2005). According to commentators, this narrative was a primary motivator for the World Bank/DFID/EU funded decentralisation reform, where District Councils were reintroduced to counterbalance the authority of chiefs (Jackson 2007; Fanthorpe, Lavali and Sesay 2011). On the other hand, scholars have pointed to the legitimacy of TPIs and the public’s trust in these institutions to explain citizens’ compliance with disease control measures during the Ebola outbreak (Wilkinson and Fairhead 2017; Richards 2016). Survey data is consistent with this ambiguity. Rural Sierra Leoneans’ attitudes toward TPIs (e.g., trust, job approval, and perceived corruption) lie near the middle of the distribution for the 31 countries surveyed in the 2019–2021 Afrobarometer round. This also gives us confidence that the findings from this study can be generalised to other countries where TPIs are politically relevant. Appendix Table A.1 presents summary statistics for the perceived influence of and attitudes towards TPIs in Sierra Leone, compared to other surveyed countries.

In 2018 the local government in Kono (called the District Council) began a tax reform with the goal of systematically collecting taxes in rural areas for the first

time since their post-war reintroduction in 2004. At the centre of this reform was a property tax, which levied a rate on all residential and commercial building structures. Building structures were divided into tax rate bands based on their size and material and all structures within a given band were taxed at the same rate.¹⁴ Tax collectors were assigned mutually exclusive areas of the district and were compensated with a share of the revenue they collected.

Revenues were very low (\approx 2 per cent of potential revenue in 2019), in large part due to low compliance. Based on data from 2019, tax compliance rates were less than 10 per cent in the villages visited by tax collectors.¹⁵ While the District's TPIs were involved in the tax effort – for example, recruiting tax collectors and supervising local bank accounts – their participation was not widely communicated to tax payers.¹⁶ Chiefs and local government officials were cognisant of this lack of communication: plans had been made for chiefdom meetings where chiefs could discuss the tax reform, but these plans fell through because neither the chiefs nor the district council could marshal the funding to hold them.¹⁷

Tax collectors offered in interviews that the lack of awareness about this collaboration was a cause of low compliance. One tax collector speculated that his collection efforts were successful in some villages 'because the authorities passed the message [of TPI involvement] to the people, and the people have respect for the authorities' and less successful in other villages because 'maybe the message [of collaboration] didn't reach them soon enough'.¹⁸ Another collector suggested that compliance would increase the following year if 'the paramount chief calls a meeting. When the chiefs are more strongly backing [the reform], that's going to make people pay'.¹⁹

In an effort to remedy this lack of awareness before the 2021 tax collection season, and therefore boost compliance, I worked with the Kono District Council (KDC) and the district's paramount chiefs to design a tax awareness campaign.

¹⁴ In 2019, 95 per cent of the building structures in the district had an assessed rate of US\$1.50 or less.

¹⁵ Note that in 2020, there was no attempt to collect the property tax, due to COVID-19.

¹⁶ A memorandum of understanding (MoU) between the Kono District Council and the district's 14 paramount chiefs was signed in early 2018. The MoU outlined the nature of the revenue sharing agreement. Half of the collected revenue was earmarked for development projects in the chiefdom where it was collected; five per cent of the collected revenue was to be allocated to the chief, to support supervision responsibilities.

¹⁷ This failure caused one paramount chief to complain to government officials that they had not followed through on their promise to support chiefs to communicate with their people about the tax. I was in attendance at the July 2020 stakeholder meeting where this complaint was made.

¹⁸ Interview with tax collector from Lei Chiefdom.

¹⁹ Interview with tax collector from Tankoro Chiefdom.

The tax awareness video at the centre of this campaign is the intervention under investigation in this study.

4. Interventions

Working with the local government and the district's paramount chiefs, I designed and recorded a tax awareness video intended to provide property owners with information about the property tax (e.g. valuation and rates).²⁰ We recorded four video segments:

(i) District council chairman provides information about tax collection:

- First, he introduces himself: *'Greetings my people! Good morning, good afternoon and good evening. This is your son Solomon Sahr Gbondo who is heading the Kono District Council.'*
- Second, he provides information about the tax rates: *'... Stick house, with local roof. That is, palm trees leaves. You pay 20,000 Leones...'*
- He concludes with an appeal to pay: *'Please, let us pay our taxes in order for us to able to carry out development projects in the district like roads rehabilitation, digging of boreholes, building of schools, and other things.'*

(ii) Paramount chief mentions collaboration with local government:

- First, the paramount chief introduces himself: *'My Gbane people, I greet you all. This is your paramount chief Aiah Bindi Faefankongor the 2nd.'*²¹
- Second, he explains that the Chiefdom Council is working with the Kono District Council to collect property tax on all the houses in the chiefdom: *'Gbane Chiefdom Council and Kono District Council are working in unity to collect property taxes, which is a tax for houses, which we should pay.'*

(iii) Paramount chief primes legitimacy:

- First, the paramount chief says that he will convene a meeting of subchiefs after taxes are collected to discuss how tax revenue will be spent: *'After we have finished collecting the tax payment, I will*

²⁰ In Appendix 6, I describe the process through which the tax awareness video was developed. A translation of the full text for all Kono videos can be found in Appendix 7.

²¹ Each paramount chief used slightly different words to deliver each message. Here I provide an example from Gbane Chiefdom.

summon a meeting. In this meeting, I shall request the presence of other subordinate chiefs in the chiefdom for us to discuss and map out ways of how the collected money is going to be utilized.'

- Second, the paramount chief acknowledges that the people of the chiefdom will not be happy if the tax revenue is not used for development: *'I am of the belief that if we do not utilize the funds collected in the best way for the development of the chiefdom, you, the chiefdom people, will be annoyed.'*

(iv) Paramount chief primes coercion:

- First, the paramount chief says that he will convene a meeting to discuss how noncompliance will be punished: *'After the collection of these taxes, I will hold a meeting with the chiefs to brainstorm what to do with those that have refused to pay taxes for their houses.'*
- Second, the paramount chief says that he and other chiefdom authorities will not be happy with those who do not pay taxes: *'Let me emphasise that I and the rest of the chiefs will not be merciful on anyone who has refused to pay the tax.'*

These segments were combined into different awareness videos. Working in conjunction with the KDC and the district's paramount chiefs, I led a door-to-door tax awareness campaign in the summer of 2021, in which a team hired through a local civil society organisation met with property owners to share different versions of the tax awareness video. I embedded an experiment in this campaign. Treatment conditions are different tax awareness videos that combine different video segments and are designed to test different hypotheses (see Table 4.1). Property owners assigned to the control condition see only the first video segment where the local government official provides information about tax collection. For property owners assigned to the first collaboration treatment condition (T1), the government information segment is followed by the second segment where the chief mentions their collaboration with local government. I expect T1 to increase property owners' perception that TPIs are collaborating with the local government on the property tax, relative to control. I test my first hypothesis by comparing tax compliance outcomes between T1 and C.

In a second legitimacy treatment condition (T2), the paramount chief's statement is expanded to include the third video segment where the chief primes legitimacy. The goal of T2 is to prime aspects of TPI's legitimacy that are highlighted in the literature – namely that important decisions will have the input of additional actors beyond the paramount chief and his close inner circle, that revenue spending decisions must be justified in public, and that poor governance will anger constituents. I can address my second hypothesis – TPIs' legitimacy enables

them to obtain citizens' compliance with state tax demands – by comparing tax compliance outcomes between T1 and T2.²² In a coercion third treatment condition (T3), the additional messaging from the paramount chief focuses on punishment for noncompliers, rather than legitimacy. The goal is to prime punitive actions that can be taken against noncompliers. I assess my third hypothesis by comparing tax compliance outcomes between T1 and T3. Table 4.1 summarises the video components that make up each treatment condition and the comparisons that I will make to test each hypothesis.

Table 4.1 Summary of treatment conditions

Treatment condition	Video segment	Comparison	Hypothesis tested
C: Tax information (n=428)	1		
T1: TPI collaboration (n=454)	1 + 2	T1 - C	H1
T2: Legitimacy (n=437)	1 + 2 + 3	T2 - T1	H2
T3: Coercion (n=433)	1 + 2 + 4	T3 - T1	H3

Source: Author's own from collected data.

I randomly assigned property owners to treatment conditions with equal probability using simple randomisation.²³ Table 4.2 presents balance. Columns 6–8 present differences between each treatment group's mean and the control group mean, standardised by the control group standard deviation. For metrics to gauge the magnitude of these differences, I provide two test statistics from a model that regresses a given covariate on the three treatment indicators. First, where a treatment group mean for a given covariate is statistically different than the control mean ($\alpha < 0.1$), I star the corresponding standardised difference in columns 6–8. Second, column 9 presents the *F*-statistic for the joint null hypotheses – a significant result here implies that the treatment indicators

²² This is a plausible policy promise. Under the MoU governing the property tax, 50 per cent of the collected revenue is earmarked for development in the chiefdom where it is collected and is to be allocated to the chiefdom council for that purpose. As the head of the chiefdom council, the paramount chief is on solid ground promising more inclusion of citizens.

²³ Every property owner was assigned to a version with a probability of 0.25. As respondents watched the tax awareness video on the tablets or phones that enumerators used to conduct the survey, I programmed the treatment randomisation into the tablet-based survey.

collectively have predictive power (i.e., treatment group means are different than the control group mean).

Observed differences between treatment groups for these immutable covariates are no more than we might expect. Given the 33 tests I run in columns 6–8, under the null hypothesis of no differences between groups, we would expect 3.3 tests to appear significant at the 90 per cent confidence level; I find only one significant difference on the *education* covariate. In column 9, I run 11 tests and therefore expect 1.1 to appear significant at the 90 per cent confidence level; I find one significant difference on the *gender* variable. The observed imbalance on gender and education would only be a concern if these covariates predict our primary outcome of interest, the compliance index (described in section 6). The bivariate relationship between gender and the tax compliance index is small and statistically insignificant.²⁴ Education, however, is positively associated with the primary compliance outcome. As the control group is more educated than any of the treatment groups, this imbalance could introduce downward bias into the estimates, though the magnitude of that bias is likely to be small.²⁵ I account for this when estimating treatment effects, as I preregistered the education variable as a control variable in my main specification.

Table 4.2 also allows us to characterise the sample. Columns 1–4 display group means for each covariate and column 5 presents the control group standard deviation. The average respondent is about 46 years old, uneducated (≈ 65 per cent), Kono speaking (≈ 81 per cent), male (≈ 72 per cent), and married (≈ 79 per cent). Property owners in my sample do not appear to be wealthy. In rural Kono District wealth is largely held in animal stocks, and the average respondent has animal stocks with a market value of US\$225.²⁶ The sample also captures a mix of elite and non-elite respondents, with roughly a quarter of the sample holding a community position of social or political importance (e.g., chief, women’s leader, religious leader, youth leader). Finally, respondents are primarily engaged in small-scale agriculture. Roughly 56 per cent of the sample works exclusively on

²⁴ The p -value on the regression coefficient of this estimated bivariate relationship is 0.81 (using only control group data).

²⁵ According to a bivariate regression (using only control data), moving from no education to some education increases the tax compliance index by 0.18 standard deviations. Respondents in control are seven percentage points more likely to have received some form of education than respondents in T2. Therefore, if left unadjusted, we should expect bias in the order of 0.0125 standard deviations.

²⁶ Animal stock value calculated based on market value in the district headquarter town at the time of data collection. The mean household owns 0.86 goats, 0.30 sheep, 3.22 chickens, 0.17 ducks, 0.10 pigs, and 0.05 head of cattle.

their own farm, while an additional third of the sample mixes work on their personal farm with outside employment.²⁷

Table 4.2 Balance table

	Mean				SD	Std. difference			F-stat
	C	T1	T2	T3		C	T1-C	T2-C	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Demographics									
Age	46.47	46.96	46.41	47.11	14.73	0.03	0.00	0.04	0.24
Educated (received any schooling)	0.39	0.36	0.32	0.34	0.49	-0.06	-0.14*	-0.10	1.58
Kono speaking	0.81	0.81	0.81	0.82	0.39	-0.01	-0.02	0.02	0.12
Gender (female = 1)	0.28	0.24	0.31	0.30	0.45	-0.08	0.07	0.05	2.17*
Married	0.78	0.80	0.80	0.78	0.41	0.05	0.04	-0.01	0.39
Community social/political position	0.27	0.25	0.26	0.24	0.44	-0.04	-0.02	-0.07	0.32
Value to animal stock (100s USD)	2.25	2.36	2.40	2.41	4.62	0.02	0.03	0.04	0.11
Owns multiple properties	0.23	0.18	0.18	0.19	0.42	-0.11	-0.10	-0.08	1.04
Employment									
Has farm & no outside employment	0.57	0.56	0.56	0.56	0.50	-0.02	-0.02	-0.02	0.04
Has farm & non-farming employment	0.33	0.32	0.35	0.32	0.47	-0.01	0.05	-0.03	0.47
Non-farming employment only	0.10	0.12	0.09	0.12	0.30	0.06	-0.04	0.08	1.31

Notes: Table 4.2 reports balance across immutable covariates. Columns 1–4 report treatment group means; column 5 reports the control group standard deviation; columns 6–8 report differences standardised relative to the control group standard deviation; column 9 reports the *F*-statistic for the joint null hypothesis. Significance: * $p < 0.10$.

Source: Author's own from collected data.

²⁷ The most commonly named forms of non-farm employment are: trader, miner, and wage labourer.

5. Data collection

5.1 Survey data

Five out of 14 chiefdoms were included in this study. Chiefdoms were excluded if (i) the paramount chief was unavailable to record a video; (ii) the recorded video deviated too much from the agreed script; or (iii) data collection costs were prohibitively high. I used geographic cluster sampling to select 123 villages for the study from a set of 434 eligible villages in the five eligible chiefdoms. As road infrastructure in Kono District is poor, making travelling between villages time and resource intensive, geographic cluster sampling helped minimise transportation costs. Figure 5.1 visualises this sampling: blue triangles represent villages sampled for surveying.²⁸ More details on survey sampling can be found in Appendix 4.

Working with a team of 33 enumerators between May and June 2021, we completed 1,752 surveys across 118 villages, selecting households to interview through a random walk procedure.²⁹ All survey respondents received three Maggi spice cubes upon completing the survey as a token of thanks. In addition, respondents kept their proceeds from a modified dictator game.³⁰

For the majority of questions in this survey, respondents were asked to gauge their expectations or perceptions on a ten-point scale. To make this scale more concrete to survey respondents, all enumerators were given ten beans and a plastic plate, which served as a visual aid regarding the ten-point scale. Respondents were asked to allocate some, none, or all of the ten beans to the plastic plate to represent their perceptions and expectations. Enumerators were

²⁸ In the five study chiefdoms, I excluded villages based on three criteria. The research design relies on the ability to manipulate respondents' beliefs about the involvement of TPIs in the new property tax collection. I reasoned that this belief would be more malleable in villages where property tax had not been previously collected. Therefore, I excluded all villages visited by tax collectors in 2019. Second, to increase enumeration efficiency, I excluded villages that are listed in the 2015 census as having fewer than three building structures. Third, I excluded chiefdom headquarters towns from the sample. This left me with a sample frame of 434 eligible villages.

²⁹ Enumerators explained their role to respondents in the following way: 'I work for an organization that is between the people and the government, which is called KoCEPO. This organisation is doing some research to find out ways to improve conditions in Sierra Leone.' Note that the enumeration team was unable to locate five villages. For a sampling frame I used a list of villages from Sierra Leone's 2015 national census. This list of villages may not perfectly describe the set of villages in Kono today – there may have been errors during the census, new villages may have been created since 2015, and others may have been abandoned.

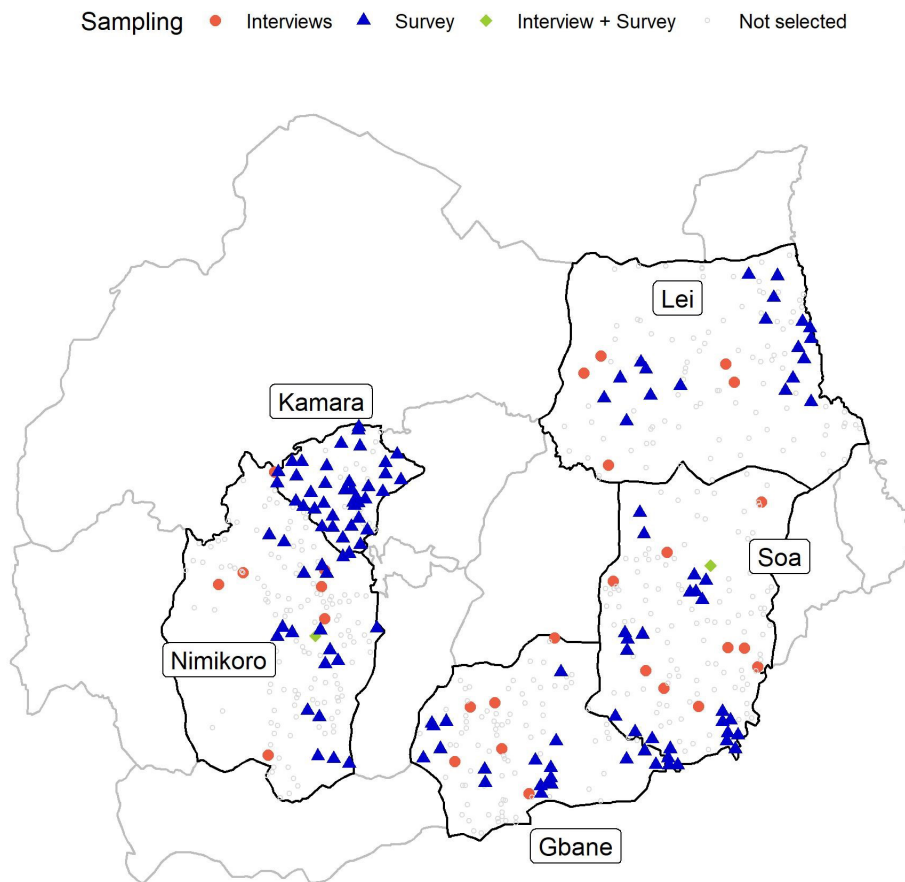
³⁰ For the control group, the mean amount kept by the respondent was 1,670 Sierra Leonean Leones (approx. US\$0.15).

trained on how to discuss the concept of probability with respondents in familiar terms and how probabilistic expectations could be expressed using the beans. Measurement validity is discussed in greater detail in Appendix 2.

5.2 Qualitative interviews

In fall of 2022, I worked with a team of six research assistants to conduct interviews with 300 respondents across 29 villages in four of the five study chiefdoms (Gbane, Soa, Lei, and Nimikoro). Red circles in Figure 5.1 represent villages visited for qualitative interviews. In two of these villages, we had already conducted surveys (green diamonds). To select villages for interviews, I first randomly selected sub-chiefdom administrative units called sections in each chiefdom. Within each sampled section, I then selected the section headquarter town and one other large town for interviews.

Figure 5.1 Sampling map



Source: Author's own from collected data.

Before conducting data collection, interviewers were trained during a five-day workshop to follow an interview guide which was structured to cover the following topics:

- (i) *Local tax*: An existing and widespread poll tax collected by chiefdom authorities. Questions focused on (a) perceived motivations for paying this tax and (b) monitoring and punishment mechanisms for noncompliance.
- (ii) *Local laws*: Interviewer asked respondents to describe common local laws, then focused on the process for creating local laws and respondents' judgement regarding these laws.
- (iii) *Perceptions of chief performance*: Interviewers asked respondents to describe things that chiefs did well, things that chiefs could improve and their overall approval of the performance of chiefs. Interviewers also asked respondents how they would react if chiefs performed poorly. Interview protocols were designed to ask about specific chiefs individually (i.e., 'your section chief'), rather than chiefs generally.
- (iv) *Communal labour*: It is common for chiefs call for labour to undertake various activities. Interviewers asked respondents to describe recent projects completed with communal labour and systems of monitoring and punishing noncompliance. Respondents were also asked about their attitudes towards communal labour and who they thought benefitted from projects undertaken with communal labour.

Interviews were conducted in either Krio or Kono (or a combination), depending on the preference of the respondent. All interviews were recorded and lasted approximately 20 minutes. I developed a coding scheme to capture respondents' (i) perceptions of enforcement mechanisms for local tax and communal labour, (ii) participation in byelaw creation and attitudes towards byelaws, (iii) judgements of leaders' performance, and (iv) descriptions of and attitudes towards projects undertaken with communal labour. A team of three research assistants conducted the coding.

6. Results

I estimated treatment effects using the centred covariate-treatment interaction specification proposed by Lin (2013):

$$Y_i = \alpha + \beta_1 T1_i + \beta_2 T2_i + \beta_3 T3_i + \theta \mathbf{X}_i + \gamma C_c + \delta N_k + \epsilon_i \quad (1)$$

where Y_i is the outcome of property owner i and T1, T2, and T3 are dummy variables for each treatment condition. Following Lin (2013), \mathbf{X}_i is a set of preregistered control variables, centred and interacted with each treatment condition. Prespecified control variables include: (i) educational level (a dummy indicating whether the respondent received any schooling); (ii) a set of dummy variables for community positions of social or political importance; (iii) expected likelihood of travel to the district and country capital; (iv) expected occurrence of an unlikely event; (v) the village level literacy rate; (vi) the percentage of households in the village that own a radio; and (vii) percentage of village residents born in the chiefdom.³¹ I also include chiefdom and enumerator fixed effects as C_c and N_k , respectively. ϵ_i is the idiosyncratic error term.³²

6.1 Does state collaboration with TPIs increase compliance?

Before reporting the impact of the TPI collaboration treatment (T1) on compliance, I first present a set of manipulation and attention checks. T1 attempts to manipulate respondents' perceptions about the collaboration between state actors and TPIs. Panel A of Table 6.1 demonstrates that T1 increases property owners' perception that TPIs are collaboratively involved with local government in the new property tax. To measure perceptions of involvement, enumerators presented respondents with a laminated paper divided into four squares, where each square represented one of the four actors: (i) Kono District Council, (ii) TPIs, (iii) the central government, and (iv) NGOs and civil society organisations. Each

³¹ Community position dummies include: chief or deputy chief (village or section), women's leader (village or section), youth leader (village or section), religious leader, and other, which comprises societal heads, tribal chiefs (i.e., leaders of non-Kono ethnic groups), and chiefdom councillors. I include the respondent's perceived likelihood of an unlikely event – the president visiting the respondent's village on the following day – because it tells us how the respondent is using the 10-point scale and is therefore prognostic. I selected prognostic variables for covariate adjustment using a LASSO model that predicted my outcomes of interest (details in Section 8 of the PAP).

³² As randomisation occurs at the level of the observation (respondent), I do not cluster standard errors.

respondent was then given ten beans and asked to allocate the beans across the four squares, placing more beans on actors they thought were more involved in and responsible for the property tax.

Row 1 shows property owners' perceptions of the involvement of TPIs and column 2 reports the effect of T1 on perceived involvement of TPIs. T1 increases the perceived involvement of TPIs by 0.27 standard deviation (p -value < 0.001), equivalent to 0.56 beans, or 24 per cent of the baseline mean.³³ Row 2 reports a video comprehension check administered at the end of the survey and provides additional evidence that T1 manipulates theoretically important beliefs: respondents in T1 are 17 percentage points more likely than control respondents to agree that the collaboration between chiefs and state was discussed in the video.

Panel B presents the effect of the TPI collaboration treatment (T1) on compliance outcomes, where the preregistered primary outcome is an additive index (compliance index) that comprises two survey questions that attempt to measure propensity to pay and a behavioural game that attempts to capture voluntary compliance.³⁴ These indicators were measured using a survey administered to respondents directly following the tax awareness video.³⁵ The first survey question (*self-reported propensity to pay*) directly asked the respondents to state the likelihood of them paying the full tax rate if a tax collector came to their house the next day. The second survey question (*perceived neighbours' propensity to pay*) asked respondents what proportion of other property owners in the village they thought would pay the new property tax, thereby attempting to measure propensity to pay indirectly.

³³ At baseline, respondents allocated 68 per cent more beans to local government than to TPIs. The increase in perceived involvement of chiefs due to T1 led to a corresponding perceived decrease in involvement from the central government and NGOs but not from local government. Note that the measurement strategy forces respondents to allocate a finite number of beans. Therefore, an increase for one actor must lead to a decrease for one or more of the other actors. Manipulation and attention checks are presented and discussed in greater detail in Appendix 5.

³⁴ To construct the summary index of the three compliance measures, I follow Kling, Liebman and Katz 2007 and standardise each sub-indicator relative to the control group and combine them in an equally weighted index that averages across standardised sub-indicators. I impute missing sub-indicators using the group mean.

³⁵ The three outcome measures were placed at the beginning of the survey, preceded only by two treatment comprehension questions.

Table 6.1 Effect of collaboration (T1) on compliance

Outcome	Mean (Control)	Estimate (T1-C)	N
Panel A: Manipulation/attention checks			
Perceived involvement in tax: TPIs	2.350 (2.052)	0.273*** (0.064)	1,752
Attention check: Collaboration discussed in video	0.682 (0.466)	0.170*** (0.025)	1,751
Panel B: Compliance outcomes			
Compliance index	0.000 (0.668)	0.068* (0.040)	1,752
Self-reported propensity to pay tax	6.729 (3.000)	0.090 (0.058)	1,751
Perceived neighbours' propensity to pay tax	5.965 (2.322)	0.113 (0.070)	1,657
Coins given to KDC's house fund	1.664 (1.438)	0.001 (0.056)	1,752
Tax morale (secondary outcome)	7.357 (2.817)	0.155** (0.063)	1,751

Notes: Table 6.1 reports the effect of the collaboration treatment (T1) on manipulation check outcomes (Panel A), the compliance index (in bold), and its sub-components (Panel B). Column 1 reports the control group mean for each indicator, with the standard deviation in parentheses; column 2 presents treatment effects estimates, with standard errors in parentheses. Reported effects are standardised effects. Models are estimated using OLS with preregistered specifications. Column 3 reports the number of non-missing observations. The *tax morale* measure was not included in the compliance index (as per the pre-analysis plan).

Significance: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Source: Author's own from collected data.

After answering the above tax compliance survey questions, the respondents played a behavioural game (dictator game), where they were asked to distribute a small sum of money between themselves and the local government's property tax fund (*coins given to KDC's house fund*). Respondents were told that the money collected from property taxes went into a government bank account, which we referred to as the 'house money fund'. The enumerator then handed the respondents five 500 Leone coins (each valued about US\$0.05) and told the respondents that they should distribute these coins between themselves and the house fund. It was made clear that the respondents could keep any coins they

allocated to themselves and that they could split the coins any way they liked between themselves and the house fund. Enumerators then recorded the number of coins the respondents allocated to the house fund.³⁶ This indicator attempts to capture voluntary aspects of property tax compliance, as these voluntary contributions go to the same bank account as property tax revenue, and political authorities have no way of knowing how much a given respondent contributed.

Treatment effects are reported in standard deviation units. The TPI collaboration treatment (T1) increases the compliance index by 0.068 standard deviations, relative to the control, a difference which is statistically significant. Looking at the effect of the T1 on the sub-indicators, we can see that this effect is driven by the measures of self-reported propensity to pay and perceptions that neighbours will pay. To obtain a concrete understanding of the effect size, consider the point estimate for the effect on the indicator *self-reported propensity to pay*. The effect size is 0.09 standard deviations, which corresponds to 0.27 beans on the ten-bean scale. Given that each bean represents 10 percentage points, we can interpret this effect as a 3 percentage point increase in the self-reported likelihood to pay property tax.

I prespecified a lone secondary compliance outcome: a survey-based measure of the respondents' belief that they *ought* to pay property tax, often referred to as 'tax morale' in the tax compliance literature. Respondents were asked to imagine a situation in which they would not be fined or penalised if they did not pay their property tax and were then asked if they thought it was (morally) right to pay their tax. In the last row of Table 6.1, a large and statistically significant impact of the tax morale measure can be seen.³⁷ Considered together, these findings can be interpreted as strong evidence that individuals are more willing to comply with the newly introduced property tax when they know that their local government is collaborating with leaders of TPIs.

³⁶ As stated, coins allocated to the house fund were handed over to the KDC to be deposited in their property tax revenue bank account.

³⁷ Survey-based tax morale measures are often used in the tax compliance literature as proxies for tax compliance (e.g., Besley 2020). Given the analytical distinction between a belief about paying taxes and behaviour related to paying taxes, I decided not to include this outcome in the compliance index. Doing so would increase the *t*-statistic on the compliance index to 2.45.

6.2 Sources of TPIs' authority: primary mechanism results

Why does government collaboration with TPIs increase citizens' compliance with property tax? This section examines two arguments for why TPIs are able to generate citizen compliance: *legitimacy* and *coercion*.

Table 6.2 reports the effect of the legitimacy treatment (T2) (columns 2–3) and coercion treatment (T3) (Columns 4–5) on the compliance index. Column 2 shows that the legitimacy treatment (T2) increases the compliance index over and above the effect of the TPI collaboration treatment (T1), but this difference is not statistically significant (p -value = 0.18). While statistically insignificant, it is worth noting that (i) all three sub-indicators move in the expected direction and (ii) the estimated effect of 0.056 standard deviations is only 18 per cent smaller than the effect of the collaboration treatment (T1). Further, the positive T2 point estimate is driven by increased *coins given to KDC's development fund*, in accordance with theoretical expectations that legitimacy should lead to consent-based compliance. Column 3 reports the effect of the legitimacy treatment relative to the control, which we can interpret as the joint effect of the TPI collaboration treatment (T1) and the legitimacy treatment (T2). While this comparison bundles theoretical mechanisms, it has important policy relevance. Legitimacy-based appeals made by traditional leaders work: they are more effective at generating tax compliance (p -value = 0.004) and increasing tax morale (p -value = 0.011) relative to generic appeals to pay made by government officials.

Column 4 shows that the coercion treatment (T3) increases the compliance index above and beyond the effect of T1, and this effect is statistically significant at the 90 per cent confidence level (p -value = 0.09). The point estimate on this increase is 0.066 standard deviations, almost exactly the size of the T1 effect. This positive effect on the compliance index is primarily driven by an increase in the direct measure of tax compliance, *self-reported propensity to pay tax*. In contrast to the legitimacy treatment, the coercion treatment has no impact on the voluntary compliance measure (*coins given to KDC's house fund*) suggesting that T3 impacts compliance through non-voluntary channels. Column 5 shows the joint effect of the TPI collaboration treatment (T1) and the coercion treatment (T3) and provides evidence that coercion-based appeals to pay are also effective. Relative to generic appeals made by government officials, coercion-based appeals from traditional leaders increase tax compliance (p -value < 0.001) and tax morale (p -value < 0.001).

Table 6.2 Effects of mechanism treatments (T2/T3) on compliance outcomes

Outcome	Mean	Legitimacy		Coercion		N
	(T1) (1)	(T2-T1) (2)	(T2-C) (3)	(T3-T1) (4)	(T3-C) (5)	(6)
Compliance index	0.063 (0.649)	0.056 (0.042)	0.124*** (0.043)	0.066* (0.039)	0.134*** (0.040)	1,752
Self-reported propensity to pay tax	6.874 (2.920)	0.034 (0.061)	0.124** (0.060)	0.133** (0.058)	0.223*** (0.058)	1,751
Perceived neighbours' propensity to pay tax	6.226 (2.381)	0.058 (0.071)	0.170** (0.071)	0.038 (0.070)	0.150** (0.069)	1,657
Coins given to KDC's development fund	1.703 (1.446)	0.076 (0.056)	0.077 (0.058)	0.019 (0.057)	0.021 (0.058)	1,752
Tax morale (secondary outcome)	7.720 (2.598)	0.010 (0.060)	0.165** (0.065)	0.064 (0.059)	0.219*** (0.064)	1,751

Notes: Table 6.2 reports the effect of the legitimacy treatment (T2) and the coercion treatment (T3) on the compliance outcomes. Column 1 reports the control group mean for each indicator, with the standard deviation in parentheses. Columns 2–3 present treatment effects for T2, relative to T1 and control, respectively. Columns 4–5 present treatment effects for T3 relative to T1 and control, respectively. Reported effects are standardised effects. Models are estimated using OLS with preregistered specifications. Column 6 reports the number of non-missing observations. The *tax morale* measure was not included in the compliance index (as per the PAP). Significance: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Source: Author's own from collected data.

In summary, the main set of experimental results provides strong evidence that the TPI collaboration treatment (T1) increases the measures of tax compliance used in this study. There is also evidence that the effect of collaboration is driven by both legitimacy and coercion, though the evidence for the coercion mechanism is stronger.

6.3 Additional legitimacy results: performance or process?

To further investigate the legitimacy hypothesis – and in an attempt to pin down if TPIs' legitimacy stems from *performance* (e.g., maintaining social stability) or *process* (e.g., inclusive and transparent decision making) – I collected both additional intermediate experimental outcomes and qualitative data. Table 6.3 presents the impact of the legitimacy treatment (T2) on four intermediate experimental outcomes. The first two outcomes measure expected benefits of taxation, aimed at capturing performance-based aspects of legitimacy. The first

indicator captures respondents' perception that their own village will benefit from taxation; the second, that other villages in their chiefdom will benefit. The third and fourth indicators capture perceptions that tax revenue will be spent transparently and efficiently, respectively; these outcomes are indicators of process-based legitimacy. Absent priors regarding whether TPIs' legitimacy stems from performance or process, the preregistered outcome for hypothesis testing is an index comprising all four indicators (legitimacy index). For these outcomes, the appropriate comparison group is the pure control (C: tax information). Using T1 (TPI collaboration treatment) as the comparison group for these outcomes is problematic because questions about legitimacy may prime respondents to TPIs' legitimacy. For example, having just seen their paramount chief in a video, T1 respondents may think of their chief's governance performance (a performance legitimacy prime) when asked if they expect to benefit from taxation, which would undermine the impact of the legitimacy treatment (T2).

Column 2 shows that the legitimacy treatment (T2) increases the legitimacy index, relative to the control group, but this effect is not statistically significant (p -value = 0.15). The point estimate on all four sub-indicators is positive and of similar magnitudes across performance and process measures. These results, when considered together with the effect of borderline significance on the main compliance index, provide suggestive evidence for the legitimacy hypothesis; these results do not privilege the importance of performance over process, or vice versa.

For additional evidence of TPIs' legitimacy, I turn to qualitative data and demonstrate the plausibility that TPIs in Kono possess both performance and process legitimacy. Regarding performance legitimacy, I document traditional leaders' role in coordinating two local public goods: public works (e.g., road maintenance) and public order (i.e., peace and social stability). Regarding process legitimacy, I show that citizens directly and indirectly participate in creating local laws (called byelaws).

Table 6.3 Effects of legitimacy treatment (T2) on intermediate outcomes

	Mean	T2-C	N
Secondary outcome	(1)	(2)	(3)
Legitimacy index	0.000 (0.698)	0.060 (0.042)	1,752
Own village will benefit from tax	7.114 (2.853)	0.088 (0.061)	1,722
Other villages will benefit from tax	6.710 (2.838)	0.023 (0.068)	1,646
Ease of discovering how tax revenue was spent	4.460 (3.094)	0.103 (0.064)	1,742
Proportion of revenue towards development	6.180 (2.614)	0.021 (0.066)	1,709

Notes: Table 6.3 reports the effect of legitimacy treatment (T2) on the secondary legitimacy outcomes. Column 1 reports the control group mean for each indicator, with the standard deviation in parentheses. Column 2 presents standardised treatment effects for T2, relative to control. Models are estimated using OLS with preregistered specifications. Column 3 reports the number of non-missing observations.

Significance: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Source: Author's own from collected data.

6.3.1 The local provision of public works

While the Sierra Leonean government does provide certain public works in rural areas, its capacity to do so is limited. For example, while the government may build schools and hospitals, or occasionally undertake large-scale rehabilitation for primary rural roads, it is unlikely to repair school roofs that have been blown in by heavy wind or maintain rural roads that the rainy season has left overgrown with brush and cratered with potholes. Instead, many public works in rural areas are organised locally, undertaken with communal labour – mandatory labour contributions that can be demanded by chiefs.

I find qualitative evidence that the public works undertaken with communal labour increase community welfare, plausibly generating performance legitimacy for TPIs. First, communal labour is most often directed at projects that likely have broad social benefits (Table 6.4), such as clearing vegetation from roadways

(‘road brushing’, 68 per cent) and road maintenance (39 per cent).³⁸ Indeed, many respondents pointed to the maintenance of roads when asked what their traditional leaders were doing well. One respondent lauded their section chief for ‘greatly improving our roads by organising communal labour’³⁹ and other respondents praised section leaders for ‘the maintenance of roads to connect our communities’⁴⁰ and maintaining ‘a good road network’.⁴¹ Respondents stated that chiefdom authorities ‘make sure that our roads are good for safe movement’⁴² and praised how chiefdom authorities ‘mobilised the youth for road maintenance’.⁴³ While respondents do report instances of chiefs calling on communal labour for personal projects – most notably to work on private farms – these occurrences are rare: only 1 per cent of respondents mention that town communal labour has been used for work on a private farm and only 4 per cent of respondents mention that chiefdom communal labour has been used this way.

Interviewers also asked respondents about their perceptions of who benefitted from communal labour.⁴⁴ At the village, section, and chiefdom level respondents describe communal labour as being directed towards projects that benefit the public. At the town level, over 80 per cent of respondents describe communal labour as devoted exclusively towards public projects and only 7 per cent say communal labour is sometimes or often devoted to projects that do not benefit the public.⁴⁵ The majority of respondents also say that section authorities (75 per cent) and chiefdom authorities (66 per cent) always use communal labour for public benefits. A minority of respondents say that section authorities (11 per cent) and chiefdom authorities (18 per cent) sometimes or often divert communal labour towards private projects.⁴⁶ These statistics are presented in greater detail in Appendix Table A.10 (Panel B).

³⁸ As traditional leaders at each administrative level (i.e., village, section, chiefdom) can demand communal labour, interviewers separately asked respondents about communal labour at each level.

³⁹ Interview: 75.

⁴⁰ Interview: 18.

⁴¹ Interview: 123.

⁴² Interview: 21.

⁴³ Interview: 110.

⁴⁴ The interview prompt asked respondents if communal labour was used ‘in a fair way that benefits the community or is it used in an abusive way that benefits only a few people?’

⁴⁵ Communal labour is most frequently called by town chiefs, where 98 per cent of respondents named a recent project undertaken with communal labour.

⁴⁶ Note that these percentages do not add up to 100 per cent because some responses were ambiguous.

Table 6.4 Common communal labour projects

Projects	Village (%)	Section (%)	Chiefdom (%)
Any project	98	82	69
Road brushing	68	27	12
Road maintenance (e.g., fix potholes)	39	46	31
Cleaning (town/building)	28	14	16
Construction of building	12	19	20
Labour on private/personal farm	1	3	4

Notes: Table 6.4 reports projects to which communal labour is devoted, according to respondents in semi-structured interviews. Respondents were asked to name up to three recent projects carried out with communal labour. This table reports the percentage of respondents that name a given type of project. This table presents a non-exhaustive list. Percentages are rounded to the nearest integer.

Source: Author's own from collected data.

6.3.2 The local provision of peace and order

The Weberian state monopolises violence to provide peace and maintain public order. However, in rural Sierra Leone the government struggles to communicate laws and has little capacity to enforce them; government law enforcement officers are absent in rural areas. Instead, TPis have the legal mandate to establish and enforce local laws (byelaws), which can be enacted at the village level by the village chief or more broadly throughout the chiefdom by chiefdom level authorities. According to interviews, the most common byelaws are those that prohibit theft (mentioned by 65 per cent of respondents), abusive language (51 per cent), and fighting (39 per cent). It was also commonly mentioned that local laws mandate labour contributions to community projects (27 per cent) or regulate livestock (9 per cent) and the harvesting of crops (10 per cent).⁴⁷

Informants describe social stability as stemming from laws that chiefs enact, plausibly generating performance legitimacy for TPis: 'If laws are not made, the town would not [be in] control. Everybody will just be doing things the way they

⁴⁷ Appendix Table A.7 provides a more comprehensive list of byelaws mentioned during interviews.

want.⁴⁸ Many informants shared the perspective that, ‘it is the law that binds us together’,⁴⁹ brings ‘peace and protection’,⁵⁰ and ‘made the town function well’.⁵¹

Moreover, these laws are created with direct and indirect citizen participation, which plausibly generates *input legitimacy* for TPIs. Specifically, I find that (i) byelaws are developed and enacted at meetings, rather than behind closed doors; (ii) local representatives are invited to attend meetings for chiefdom byelaws; and (iii) participants in these policy-making meetings have space to actively engage.⁵²

Informants highlighted that authorities ‘made laws in consultation with the people’⁵³ and that the law-making process was open to all community members: ‘whether you have a [leadership] position in the town or not... it is us all that sit and make [the laws]’.⁵⁴ While chiefs may be the ‘chief coordinators of the law’ they ‘do not make [laws] alone’.⁵⁵ Byelaws are developed during open meetings, rather than behind closed doors. To discuss village byelaws, authorities ‘invite the entire community’⁵⁶ or ‘the whole town’⁵⁷ to meetings. Similarly, chiefdom authorities call a ‘general meeting’⁵⁸ to formulate chiefdom byelaws. To elicit these responses, interviewers asked informants how byelaws were created without mentioning or making reference to meetings. Nearly all respondents (97 per cent) explicitly mentioned that meetings are called when byelaws are created, either within the village or more broadly within the chiefdom.⁵⁹ Moreover, these

⁴⁸ Interview: 70.

⁴⁹ Interview: 100.

⁵⁰ Interview: 112. Another respondent noted laws were put in place so that communities ‘could have peace’ (interview: 18).

⁵¹ Interview: 37.

⁵² These findings (summarised in Appendix Table A.8) are in line with recent research that documents inclusive decision-making processes in TPIs (Baldwin and Holzinger 2019).

⁵³ Interview: 52.

⁵⁴ Interview: 404.

⁵⁵ Interview: 61.

⁵⁶ Interview: 400.

⁵⁷ Interview: 404.

⁵⁸ Interview: 401.

⁵⁹ These statistics, as well as the other statistics in this sub-section, are presented in Appendix Table A.8.

meetings are themselves often the product of citizens' participation, called to discuss a proposed law put forward by an individual or community groups.⁶⁰

When meetings are called to discuss chiefdom byelaws, all villages are represented by local chiefs and community leaders. Chiefdom authorities invite 'town chiefs, section chiefs, youth chairmen, and the mammy queen [i.e., women leaders]' from each village.⁶¹ These invitations are extended 'in a form of a letter'⁶² or by 'sending young men to every community'.⁶³ Informants offered these responses after interviewers prompted: '*When chiefdom byelaws are created, is anyone from your village usually involved?*' Ninety-four per cent of respondents said that representatives from their village or section would be invited to attend these meetings and only 1.8 per cent said that they would not.⁶⁴

These policy-making meetings are spaces where attendees are 'given a chance to talk'⁶⁵ about 'burning issues'.⁶⁶ Participants can 'ask questions and make suggestions'⁶⁷ about byelaws that chiefdom authorities or other participants are putting forward. Research assistants coded interviews for evidence of active participation based on respondents' descriptions of policy-making meetings. At the village level, 84 per cent of respondents describe meetings as forums for discussion between village authorities and villagers, compared to 8.6 per cent who report that these meetings are only a space for village authorities to *inform* the village's residents about a byelaw. For chiefdom meetings, 78 per cent of respondents describe these meetings as containing active participation from attendees; only 3.7 per cent of respondents report that these meetings are not open for active participation.

In this section, I provided additional experimental and qualitative evidence to evaluate the legitimacy hypothesis. Turning first to secondary experimental outcomes, I presented suggestive evidence in Table 6.3 that the legitimacy treatment (T2) increased an index of intermediate legitimacy outcomes (p -value = 0.15). Using qualitative data, I then established the plausibility of the legitimacy

⁶⁰ Interview: 403; 406; 405.

⁶¹ Interview 404. Another respondent says, describing the universal representation from villages in their area: 'all the 19 villages are invited. No one is left out' (interview: 10).

⁶² Interview: 128.

⁶³ Interview: 238.

⁶⁴ Percentages are conditional on the respondent saying that a meeting would be called.

⁶⁵ Interview: 120.

⁶⁶ Interview: 404.

⁶⁷ Interview: 32.

hypothesis by illustrating avenues through which TPIs might generate performance legitimacy (organising local public goods) and process legitimacy (citizen participation in creating local laws). These additional pieces of evidence complement the suggestive findings from my primary mechanism analysis (Table 6.2), where I found that the legitimacy treatment (T2) increased the main compliance index above and beyond the effect of the collaboration treatment (T1), but that this difference was not statistically significant (p -value = 0.18). Taken together, I interpret this collection of results as evidence in favour of the hypothesis that legitimacy is a source of TPIs' authority.

6.4 Additional coercion results: biased governance or benign enforcement?

In Table 6.2, I found evidence in favour of the coercion hypothesis: general statements made by the paramount chief about punishing noncompliance (T3) increased the tax compliance index, relative to T1. But what type of potential punishment are respondents reacting to? If TPIs' coercive capacity stems from chiefs' willingness to abuse their control of local governance institutions, citizens may fear that noncompliance will be punished with biased future treatment; alternatively, if chiefs benignly enforce local laws, noncompliance is likely to be met with fines.⁶⁸

In Table 6.5, I attempt to tease out the specific tools of TPIs' coercive power by examining the impact of the coercion treatment (T3) on six intermediate experimental outcomes. A first measure captures the perceived likelihood that respondents will be fined if they don't comply; a second measure captures the percentage of villages in the chieftom where noncompliant owners will be fined by chiefs; the third and fourth indicators measure perceptions that noncompliers will be fined by the *local government*. The fifth and sixth indicators measure governance bias, capturing respondents' perceptions that chiefs will favour compliant property owners in decisions on land allocation and dispute resolution, respectively. The comparison group is the pure control (C; tax information).⁶⁹

Point estimates are positive, though not individually statistically significant, for the indicators that capture perceptions that noncompliant property owners will be

⁶⁸ Of course, chiefs can levy fines abusively. I address this possibility in the analysis of qualitative data at the end of this section.

⁶⁹ Using the collaboration treatment (T1) as the comparison group is problematic because questions about punishment are likely to prime respondents to TPIs' coercive capacity, undercutting the treatment effect of T3. For example, asking respondents about the probability that chiefs will fine noncompliance after the respondent has watched a video containing the paramount chief is likely to prime respondents to TPIs' propensity for issuing fines.

fined (outcomes 1–4); point estimates are negative (though not statistically significant) for the indicators that capture beliefs that noncompliant property owners will face future bias in decisions regarding land or disputes (outcomes 5–6).⁷⁰ Note that Table 6.5 includes two indicators that were not preregistered, both measuring the probability that noncompliers will be fined by the local government. I have included these outcomes to provide additional evidence that the coercion treatment primes fine-based punishment for noncompliance.⁷¹ While the results in Table 6.5 are murky, there is more evidence that the coercion treatment (T3) is priming beliefs about fine-based punishment, rather than governance bias-based punishment.

6.4.1 Enforcing local tax

I build on the suggestive results in Table 6.5 with evidence from qualitative data by first exploring the enforcement of an existing, widespread poll tax (called the local tax), which is collected by chiefdom authorities.⁷² I find that TPIs have monitoring mechanisms in place to detect noncompliance, and that fines are the typical punishment for noncompliance.

Traditional leaders commonly used roadblocks (mentioned by 32 per cent of respondents) to monitor compliance with the local tax, erected either inside the village or at key junctions on the road network.⁷³ Another common monitoring strategy, noted by one village chief, is for authorities to ‘go house-to-house to check for tax payers’ (24 per cent).⁷⁴ Informants also reported that authorities keep records of who has paid (24 per cent). While village chiefs can monitor compliance directly by, for example, making lists of compliant community members,⁷⁵ chiefdom authorities can monitor *villages* by tracking the number of

⁷⁰ I preregistered an index as the main outcome for hypothesis testing these intermediate coercion outcomes. The point estimate on the index is near zero and not statistically significant. However, I drop the index from Table 6.5 because my exposition and analysis of intermediate coercion outcomes focuses on variation in effects between sub-indicators, rather than their average effect.

⁷¹ These two outcomes are the only two punishment-related outcomes that I measured but did not preregister for analysis.

⁷² Chiefdom authorities are entitled to keep most of the local tax revenue; a small percentage is transferred to the local government.

⁷³ One respondent explained that chiefdom authorities ‘erect check points in collaboration with the chiefdom police, especially when the compliance rate is low’ (interview: 405). A village chief noted, ‘we erect checkpoints on the roads’ to monitor compliance (interview: 404).

⁷⁴ Interview: 404.

⁷⁵ Interview: 406.

tax receipts and associated revenue turned in by a given village.⁷⁶ In total, 68 per cent of respondents described at least one strategy that authorities used to monitor compliance with the local tax, at either the village or chiefdom level.⁷⁷

Table 6.5 Effects of coercion treatment (T3) on intermediate outcomes

	Mean	T3-C	N
Secondary outcome	(1)	(2)	(3)
Punishment through fines			
Respondent fined by chiefs if noncompliant	7.506 (2.660)	0.079 (0.062)	1,748
Proportion of villages where chiefs fine noncompliers	6.393 (3.474)	0.026 (0.057)	1,621
+Respondent fined by local govt if noncompliant	7.154 (2.711)	0.086 (0.060)	1,737
+Proportion of villages where local govt fines noncompliers	6.300 (3.451)	0.019 (0.057)	1,585
Punishment through biased governance			
Chief will favour compliant in land allocation	7.628 (2.460)	-0.031 (0.054)	1,744
Chief will favour compliant in dispute resolution	6.526 (2.793)	-0.034 (0.056)	1,742

⁷⁶ Chiefdom authorities distribute receipt books to village chiefs based on the village's population. Village chiefs then return completed receipt books along with the associated tax revenue. Therefore, chiefdom authorities can easily identify low compliance villages as the villages to which they have given receipt books that have not been completed and returned. To give this monitoring teeth, chiefdom authorities may also levy fines on the village chiefs of low compliance villages or force these village chiefs to 'buy' additional tax receipts, which the chief must then 'sell' to his people (interviews: 4; 27; 53; 207).

⁷⁷ Interviews prompted respondents with the following question: 'Did village (section/chiefdom) leaders do anything to check if people had paid local tax this year (2022)? Or do they not do anything like that?' Fifty-two per cent of respondents described village level monitoring mechanisms and 49 per cent of respondents described monitoring mechanisms outside the village.

Notes: Table 6.5 reports the effect of the coercion treatment (T3) on the secondary coercion outcomes. Column 1 reports the control group mean for each indicator, with the standard deviation in parentheses. Column 2 present standardised treatment effects for T3, relative to control. Models are estimated using OLS with preregistered specifications. Column 3 reports the number of non-missing observations. + Outcome not preregistered.
Source: Author's own from collected data.

The majority of respondents (55 per cent) reported that individuals found to have not paid their local tax will be issued a fine by authorities: 'either you buy the tax, or you pay a fine'.⁷⁸ Other respondents noted that noncompliers can be taken to higher authorities (45 per cent), a situation also likely to end with a fine.⁷⁹ The most commonly mentioned non-fine form of punishment is for village authorities to prevent noncompliant community members from accessing their farms (9 per cent), thus cutting off a major source of income. Taken together, 78 per cent of respondents believe noncompliant individuals will face some consequences at the hand of either village or chiefdom level authorities.⁸⁰ Appendix Table A11 breaks out these statistics at the village and chiefdom level.

6.4.2 Enforcing contributions to local public goods

In section 6.3, I documented traditional leaders' role in coordinating two local public goods: public works and public order. These public goods are produced locally when traditional leaders issue directives that citizens follow. To maintain roads, traditional leaders demand labour contributions and citizens supply this labour; to produce peace and social stability, traditional leaders enact laws that citizens adhere to. In this section, I document how TPIs enforce these directives and describe their strategies for monitoring and punishing noncompliance.

6.4.3 Enforcing communal labour for the provision of public works

Participation in communal labour is mandatory and I find qualitative evidence that TPIs have enforcement mechanisms in place to detect and punish noncompliance. According to respondents, the youth leader is commonly responsible for monitoring attendance and participation (mentioned by 67 per cent) and reporting to the authorities: 'We have the youth leader, he reports to the chief.'⁸¹ Authorities also monitor attendance themselves, either relying on their

⁷⁸ Interview: 402.

⁷⁹ After being taken to authorities, respondents may be held for several hours ('They will detain you for one hour or two hours') (interview: 404).

⁸⁰ Interviewers asked respondents, 'When village (section/chiefdom) leaders found out that someone had not paid, did they do anything about it, or did they not do anything?'

⁸¹ Interview: 32.

knowledge of community members to identify who has failed to show up (46 per cent) or keeping an attendance list (33 per cent). Says one respondent, 'If you failed to go, your town chief will know because the town chief knows everyone.'⁸² Taken together, 90 per cent of respondents described at least one monitoring mechanism at either the town or chiefdom level.⁸³

Nearly all respondents agreed that individuals will be punished if they are caught missing community labour, with 90 per cent of respondents explicitly describing the punishment as a fine.⁸⁴ Only two respondents mentioned non-fine punishments – both involved punishing the offender by impeding their livelihood (e.g., preventing them from farming) until they had undertaken community labour. No respondent mentioned that noncompliance would be punished with bias in future dealings with chiefs. Appendix Table A.9 breaks out statistics on monitoring and punishing noncompliance with communal labour demands at the village and chiefdom level.

6.4.4 Law enforcement for the provision of public order

That chiefs primarily issue fines to punish noncompliance with local tax and communal labour does not rule out that chiefs are biased in their use of coercion – they could simply levy fines in a biased manner. However, I find that citizens are generally satisfied with TPIs' law enforcement performance. Interviewers asked respondents what they thought chiefdom leaders were doing well and what they could improve on. Over a quarter of respondents (26 per cent) stated that chiefdom leaders were doing a good job enforcing or implementing byelaws; only 4 per cent said that law enforcement needed to be improved or that laws were being unfairly or incorrectly enforced or implemented.⁸⁵ If chiefs were generally biased when levying fines, we would expect to see more dissatisfaction with chiefs' law enforcement performance.

In this section, I provided additional experimental and qualitative evidence to evaluate the coercion hypothesis. I draw two conclusions from the analysis of these data. First, I find strong support for the hypothesis that coercion is a source of TPIs' authority. Qualitative data reveals a comprehensive enforcement

⁸² Interview: 401.

⁸³ Interviewers asked respondents, 'What happens if someone who was supposed to participate in community labour does not? Would the section (chiefdom) leaders find out?'

⁸⁴ Respondents noted that sickness or unavoidable travel were legitimate excuses for missing communal labour.

⁸⁵ It is not the case that respondents avoid making critical comments about chiefdom authorities, in general: over 60 per cent of respondents stated that their chiefdom authorities should do more to bring development. These statistics are presented in greater detail in Appendix Table A.10.

infrastructure that allows TPIs to detect and punish noncompliance with their directives; these findings lend plausibility and texture to my primary experimental finding that the coercion treatment (T3) increases the compliance index. Second, TPIs' coercive capacity is rooted in their use of fines to benignly enforce local laws. The evidence from the analysis of intermediate coercion outcomes (Table 6.5) leans towards the interpretation that TPIs are more likely to punish noncompliance with fines than with future governance bias. This interpretation is buttressed by qualitative evidence. Interview informants report that TPIs punish noncompliance with the local tax and communal labour demands by levying fines. Of course, that chiefs punish noncompliance with fines does not rule out that they are biased when doing so. However, qualitative evidence does not support this – respondents are much more likely to report law enforcement as something chiefs do well, rather than something they need to improve on. Moreover, collaboration with TPIs seems to increase respondents' perceptions that noncompliant owners will be fined by both TPIs and the local government; this suggests that respondents believe information about noncompliance detected by TPIs will be shared with local government.⁸⁶

⁸⁶ This echoes both the finding by Balan *et al.* 2022 that chiefs possess information that governments can utilise to obtain citizens' compliance, and a central finding from the tax evasion literature: taxpayers are more likely to report income that is also reported by a third party (e.g., Pomeranz 2015).

7. The complementarities of TPIs' legitimacy and coercive capacity

In section 6, I found evidence that TPIs' authority is rooted in both coercion and legitimacy. How can we square these findings with the literature, which tends to emphasise the mechanisms of legitimacy and coercion in isolation or view them as substitutes?⁸⁷ I argue that TPIs' legitimacy and coercive capacity can be complementary sources of their authority.

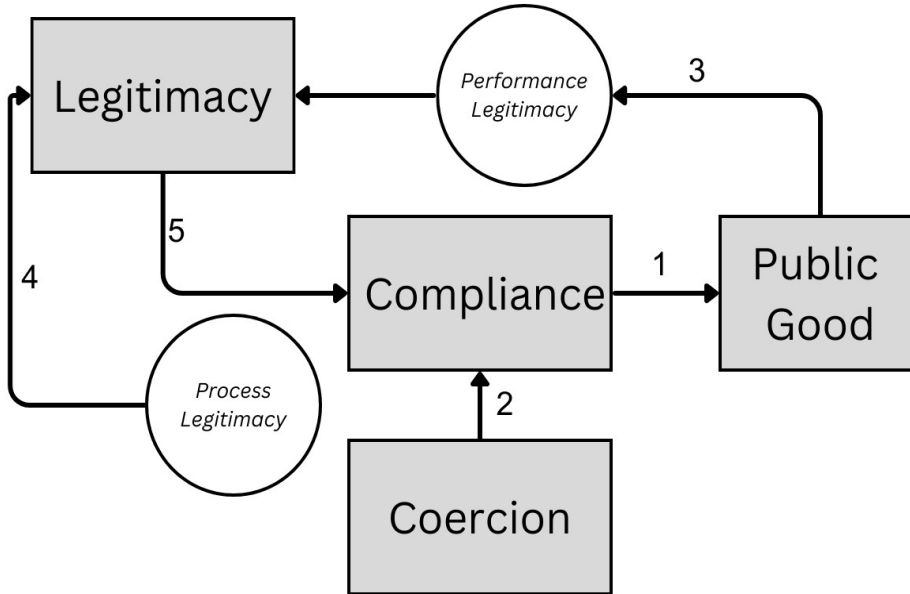
First, it is important to recognise that producing public goods requires collective action. For example, rural roads are maintained only when citizens successfully coordinate their labour; public order is achieved when citizens follow local laws and forsake certain anti-social behaviours.⁸⁸ That is, in order to generate a group benefit (i.e., a public good), citizens must comply to taking up a costly action. Figure 7.1 visualises this logic by running an arrow from *compliance* to *public good* (Arrow 1). But organising collective action for public goods can be difficult because these benefits can be enjoyed by the whole group, even by individuals who did not contribute to producing them (i.e., the benefits are nonexcludable). This gives rise to a free-rider problem: because individuals prefer to reap the benefits of public goods without making costly contributions, and because they do not want to contribute while others do not, collective action fails and the public good is not produced.⁸⁹ One way that organisations solve this free-rider problem is to provide selective incentives, rewarding individuals who contribute to producing the public good and punishing individuals who do not (Olson 1971).

⁸⁷ Substitution logic: some chiefs rule through legitimacy and consent, while others wield the stick to bully local populations into line. One example of this substitution logic in the literature is the argument that with colonisation many traditional leaders, now backed by the coercive capacity of the colonial government, swapped legitimacy-based rule for coercion-based rule (Mamdani 1996). See Dorjahn (1960) and Little (1947) for this argument in Sierra Leone.

⁸⁸ As illustrated in section 6.

⁸⁹ As Levi put it, 'No one prefers to be a sucker' (Levi 1988: 53).

Figure 7.1 Legitimacy and coercion as complements



Source: Author’s own from collected data.

In many parts of the world, the state’s coercive capacity is a tool to solve this free-rider problem because it raises the cost of noncompliance, and because it ‘persuades [individuals] that others are compelled to pay their share’ (Levi 1988: 54).⁹⁰ In rural Sierra Leone, TPIs possess this coercive capacity, while government (central and local) does not.⁹¹ To obtain the compliance necessary to produce public goods, TPIs use the stick, punishing noncompliers (Arrow 2). By enforcing the compliance necessary to produce a public good, TPIs generate performance legitimacy, as citizens recognise the crucial role played by TPIs in producing the public good (Arrow 3). In that sense, TPIs’ coercive capacity and their legitimacy are complementary: without coercive capacity, TPIs could not organise the public goods that give them legitimacy. By allowing citizens to participate in creating the laws that they enforce (Arrow 4), TPIs also generate

⁹⁰ As Levi (1988: 54) explains, ‘The importance of deterrence [for *quasi-voluntary* compliance] is that it persuades taxpayers that others are compelled to pay their share.’

⁹¹ In section 6.4, I show TPI have the capacity for monitoring and punishing noncompliance with their directives.

process legitimacy. TPIs' legitimacy further facilitates citizens' compliance (Arrow 5).⁹²

7.1 Illustrating complementarities: abusive chiefs fail to obtain compliance

This argument also implies that when TPIs use coercion in a way that detracts from the public good, they diminish their performance legitimacy and their ability to secure compliance. Using two chiefdom level vignettes, I find evidence that TPIs' use of their coercive capacity varies across chiefdoms. Specifically, I document variation in citizens' perceptions of traditional leaders' enforcement of local laws. In Lei Chiefdom, I find systematic complaints regarding the enforcement of local laws: there are widespread complaints against chiefdom leaders regarding their handling of ongoing conflict between crop farmers and cattle rearers. Conversely, in Gbane Chiefdom, I do not find complaints against enacted local laws or their implementation. According to my argument, TPIs' ability to obtain compliance from citizens should be lower in Lei Chiefdom than in Gbane Chiefdom. Indeed, when I turn back to experimental data and decompose treatment effects by chiefdom, I find that (i) the magnitude of this effect varies across chiefdoms and (ii) the effect is 6.75 times larger in Gbane Chiefdom than in Lei Chiefdom.

Lei Chiefdom

In Lei Chiefdom a local law has been passed that outlines compensation for crop farmers when cattle damage their crops and compensation due to herders if a farmer attacks a cow.⁹³ In three of the five villages where our team conducted interviews in Lei, multiple respondents highlighted frustration with chiefdom authorities regarding their handling of the conflict between crop farmers and cattle rearers. For example, this respondent takes issue not with the law itself but with its implementation.

I have a problem with one [law] that has not been implemented fairly. This is occurring during the process of adjudicating on matters where a livestock farmer's animal has eaten a farmer's crop. In matters like that, the crop farmer's complaint is not treated seriously or followed through on according

⁹² As social contract theorists such as Rousseau (1762) point out, it is also likely that legitimacy and coercion are complementary in the sense that coercive capacity fails to generate meaningful levels of compliance in the absence of legitimacy: 'The strongest is never strong enough to be always the master unless he transforms strength into right and obedience into duty.'

⁹³ Interview: 96. I use 'cow' to refer to the singular of cattle, but I do not intend to convey sex. The cattle in this context are both male and female.

*to the byelaw and most times unreasonable [i.e., very low] compensation is made. On the other hand, if a crop farmer kills a cow of a livestock farmer, [that crop farmer] will be beaten, molested, and treated poorly. There is no equity in [the chief's] judgement of this byelaw. Cattle rearers are favoured against crop farmers.*⁹⁴

Another respondent in the same village agrees, 'The laws between the cattle owners and the crops farmers are very fine in writing and when reading them, but [their] implementation is very bad.'⁹⁵ A third respondent from the same village takes issue with the perceived difference in standards applied by chieftdom authorities to crop farmers and cattle rearers, 'If a cow eats the rice you've planted, they eat the money that you would need to pay the children's school fees. If you complain nothing happens... But if you kill one cow... [inaudible] that's an issue.'⁹⁶

This perception that crop farmers are getting the short end of the stick turns up in other villages. Says a respondent in a different village, 'If a cow ruins someone's farm, [the authorities] should summon that person [to court]. At times it can take the chief a month to do so, as they are avoiding the case. But if something happens to cattle, within 30 minutes or an hour, an arrest is made and someone is detained.'⁹⁷ Another respondent in the same village has similar frustrations with inaction from chieftdom authorities: 'If a cow eats my rice, and I make a report to [the section chief] take action! ... [the authorities] should take action, but they don't.'⁹⁸ In a third village, there are similar complaints, 'As a man of the country, I haven't seen anything good yet that [chieftdom authorities] have done. Like when those cows ruin our rice, we cry. The money! But when the cattle herder comes [inaudible] he doesn't have money [for us]. The authorities don't do anything.'⁹⁹ Even chieftdom leaders admit that this is a problem. In a section headquarter town in Lei, when asked what chieftdom authorities could improve, the first topic discussed by the section chief is the 'settling of dispute among farmers and cattle rearers'.¹⁰⁰

⁹⁴ Interview: 100.

⁹⁵ Interview: 130.

⁹⁶ Interview: 10.

⁹⁷ Interview: 1.

⁹⁸ Interview: 31.

⁹⁹ Interview: 106.

¹⁰⁰ Interview: 76.

Gbane Chiefdom

In Gbane Chiefdom, I fail to find similar systematic complaints about local law enforcement. While many of the citizens' complaints in Lei Chiefdom focused on planter–herder conflict, there were no such issues that cut across the six villages where we conducted interviews in Gbane Chiefdom. In fact, only in one village did respondents' complaints converge on a topic: the role of chiefdom leaders in resolving a boundary dispute with a neighbouring village. Three of the eight interviews I reviewed in this village mention the boundary dispute and place negative judgement on chiefs' role in this dispute. Across 30 interviews I reviewed in the remaining five villages, I fail to document strong criticism of local laws (or their implementation). In two of these villages, the strongest criticism I can find against chiefs is that the paramount chief does not live in the chiefdom headquarter town, but the district headquarter town. For reference, nearly all paramount chiefs reside most of the time in the district headquarter town (Koidu).¹⁰¹ In the remaining three villages, the biggest complaints against chiefs are fairly normal demands for development (e.g., improve water access, improve roads), demands that are also commonplace in other chiefdoms.¹⁰² I cannot find a complaint against a law or the implementation of a law.

7.2 Good chief, good collaborating partner

Figure 7.2 presents the treatment effect of collaboration conditional on chiefdom. The bolded black lines display the joint treatment effect, pooling across all treatment conditions (T1+T2+T3). Pooling buys more statistical power, as T1, T2, and T3 all feature the relevant paramount chief and contain messaging about collaboration. While this strategy bundles the effects of collaboration with the effects of legitimacy appeals and coercion appeals, this is appropriate because the objective is to explore variation in the authority of TPIs across chiefdoms, and not necessarily to tease out the mechanism behind that authority. For transparency, the fainter lines alongside these pooled estimates present the treatment effect of each treatment condition individually, relative to control.

Figure 7.2 provides evidence that the magnitude of the collaboration effect varies across chiefdoms. Focusing on the pooled estimates, we see that the effect of collaboration in Gbane Chiefdom is 0.284, more than four times the average treatment effect (ATE) of 0.068. By contrast, the effect of collaboration in Lei

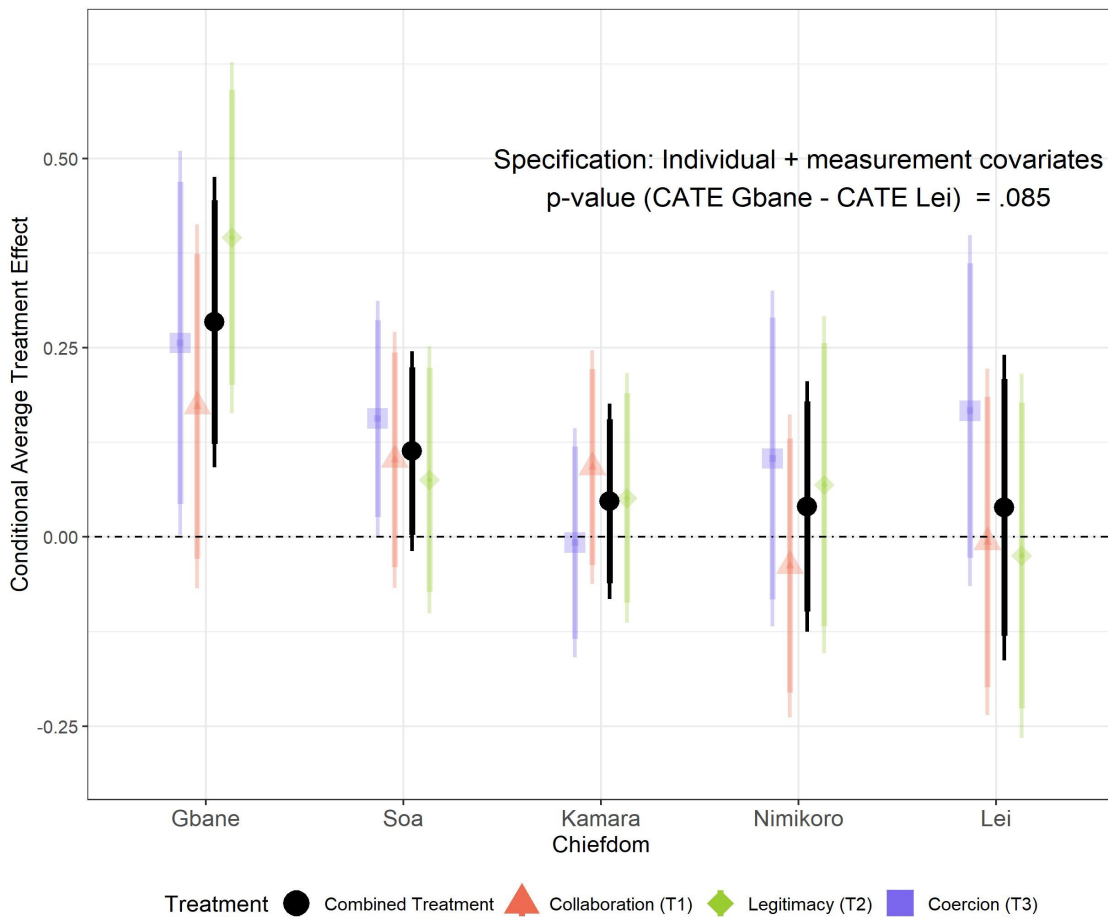
¹⁰¹ Travelling from Koidu to Gbane's chiefdom headquarter town is a several hour trip on bad roads.

¹⁰² These complaints are stronger in one village, where several informants feel left out of development that they say is occurring in other places in the chiefdom. However, there are no complaints about the way laws are implemented.

Chiefdom is 0.039, 43 per cent smaller than the ATE. The difference between these effects is statistically significant at a 90 per cent confidence level.

In summary, in Lei Chiefdom, where I estimate small chiefdom level treatment effects, I uncovered evidence that chiefdom authorities were using their coercive power against the public good, contravening the law on the books. By contrast, in Gbane Chiefdom, where I find the largest conditional treatment effect, coercion is used to enforce socially beneficial laws; I fail to find any evidence that chiefdom authorities use coercion outside the rule of law. This suggests that state actors should be wary when selecting collaborating partners, as collaboration may only be effective where TPIs use their coercive capacity to facilitate the production of public goods.

Figure 7.2 Combined treatment effects by chiefdom



Source: Authors' own from collected data.

8. Conclusion

Against the predictions of modernisation theorists (e.g., Huntington 1968), traditional political institutions are ‘resurgent’ across contemporary sub-Saharan Africa (e.g., Englebert 2005), with increasing legal protection (Holzinger, Kern and Kromrey 2020; Baldwin 2016: ch 3) and high levels of public support (Logan and Amakoh 2022).¹⁰³ Using a field experiment in Sierra Leone, I find evidence that governments can increase citizens’ tax compliance by collaborating with TPIs.¹⁰⁴ This finding appears robust: using a preregistered specification, all three treatments that mention collaboration increase both a preregistered tax compliance index and respondents’ belief that they ought to pay taxes. My focus on traditional, non-state institutions departs from the fiscal capacity literature that has concentrated on improving the effectiveness of state institutions. Does collaboration with TPIs undermine state leaders’ attempts to build effective bureaucracies? While recent work suggests that citizens may view TPIs and government as complementary (Van der Windt *et al.* 2019), we have little evidence about how the state’s collaboration with TPIs impacts citizens’ attitudes and behaviours towards state officials.¹⁰⁵ This is one potentially fruitful path for future research.

The polarising literature on TPIs contains competing accounts of these institutions, often dichotomously casting them as either coercive and despotic or legitimate. Combining experimental and qualitative evidence, in the case of Sierra Leone, I find support for both legitimacy and coercion arguments. Digging deeper into qualitative data, I argue that these mechanisms of authority are complementary. This conclusion does not contradict the many case studies that document TPIs’ abuses of power. While my findings suggest that most people think that their traditional leaders are performing their roles well most of the time, my qualitative data contain numerous allegations of individual chiefs abusing power or otherwise performing poorly. Indeed, in an exploratory analysis, I find evidence that some traditional leaders are using their coercive power *against the public good* and I find that collaboration is less effective in these areas. However, I make no attempt to explain why some chiefs govern better than others. We

¹⁰³ Legal protection of TPIs today is stronger than in independence era constitutions (Baldwin 2016) and the constitutions of 1990s (Holzinger *et al.* 2020).

¹⁰⁴ In a separate policy report I address whether local governments *should* collect taxes in rural areas (Grieco 2024).

¹⁰⁵ Also relevant here is Henn (2023), who argues that whether TPIs and the state are complements or substitutes depends on whether TPIs are integrated into a country’s constitutional framework.

know little about what explains variation in governance quality across TPIs, though Acemoglu *et al.* (2014) are a notable exception with their argument about electoral competition. Future research should explore this variation, possibly through more systematic data collection on the coercive powers, institutional checks, and governance performance of TPIs.

Appendices

Appendix 1 Context

Table A1 Influence of and attitudes towards TPIs (Afrobarometer data)

	Sierra Leone (%)	Other countries (%)	Sierra Leone (rank of 31)
Panel A: TPIs are politically relevant local governance ('some' or 'a lot')			
Solving disputes ('some' or 'a lot')	91.5	62.5	1
Land allocation ('some' or 'a lot')	78.1	55.3	5
Influence votes ('some' or 'a lot')	16.5	41.3	31
Panel B: Attitudes towards traditional leaders			
Trust ('somewhat' or 'a lot')	77.1	66.8	8
Job approval ('approve' or 'strongly approve')	75.2	69.2	13
Involved in corruption ('none' or 'some')	67.7	72.4	22
Traditional leaders serve community interests	67.3	58.9	12

Notes: Table A.1 reports the perceived influence of and attitudes towards traditional leaders in 31 African countries (source: Round 8 of the Afrobarometer survey). This table reports only responses from rural residents, to match the context of this study. Therefore, Cape Verde, Tunisia, and Mauritius are excluded because reported questions were not asked. Survey questions Rows 1–4: 'How much influence do traditional leaders currently have in each of the following areas: (1) Governing your local community? (2) Solving local disputes? (3) Allocating land? (4) Influencing how people in their communities vote?' Survey question for Row 5: 'How much do you trust each of the following, or haven't you heard enough about them to say: traditional leaders?' Survey question for Row 6: 'Do you approve or disapprove of the way the following people have performed their jobs over the past twelve months, or haven't you heard enough about them to say: your traditional leader?' Survey question for Row 7: 'How many of the following people do you think are involved in corruption, or haven't you heard enough about them to say: traditional leaders?' Survey question for Row 8: 'Which of these statements is closest to your own opinion? Traditional leaders: (i) mostly look out for what is best for the people in their communities; (ii) mostly serve the interests of politicians and government officials; (iii) mostly look out for their own personal interests?' Source: Afrobarometer Round 8.

Appendix 2 Using beans to measure perceived probabilities

For many questions in our survey, we asked respondents to gauge their expectations or perceptions on a ten-point scale. To make this scale more concrete to survey respondents, all enumerators were given ten beans and a plastic plate, which served as a visual aid regarding the ten-point scale.

Before entering the main modules of the survey, enumerators guided respondents through several sample questions to familiarise them with this scale. The response patterns to these practice questions were encouraging and suggested that respondents understood and were comfortable using the ten-point scale. Average responses were low to unlikely events ('chance that the president visits this community tomorrow') and high for highly likely events ('chance that you will drink water this month'). In addition, the response patterns were in keeping with basic laws of probability – respondents overwhelmingly reported that they had an equal or greater likelihood of visiting the district headquarters town in the next 30 days than in the next seven days: just 4 per cent of respondents report they are more likely to travel to the district capital over the next seven days than over the next 30 days. Table A.2 reports responses to four key sample question for respondents in the control group.

Table A2 Responses to practice questions (control group)

Question	Average beans
Likelihood of drinking water this month	8.55
Likelihood the president will visit this community tomorrow	1.82
Likelihood of travelling to district capital this week	5.33
Likelihood of travelling to district capital this month	7.44

Source: Author's own from collected data.

This exercise also provides insight into how respondents interpreted the levels of my measurement scale. While our enumeration team coached respondents that each bean represented ten percentage points of probability ('each bean is one chance out of 10'), it seems more likely that respondents understood each bean as an increase (or decrease) in relative likelihood, rather than representing exactly ten percentage points. This means that between-respondent differences

in measured outcomes may represent differences in the way respondents map perceived probabilities to the ten-point scale – in addition, of course, to representing real differences in beliefs.¹⁰⁶ Therefore, responses to these practice questions might predict responses to other survey questions, a relationship that can be leveraged to reduce noise when estimating treatment effects. I include several of these measures in the prespecified covariate adjustment.

¹⁰⁶ For example, a respondent who believes it to be very unlikely that the President will visit their community tomorrow may represent this belief with zero or one beans. Note that enumerators were trained to emphasise repeatedly that respondents could put as many or as few beans as they like and were allowed to put all ten beans or no beans at all into the plastic plate.

Appendix 3 Outcomes description and summary statistics

Table A3 Description of outcome variables

Indicator name	Variables description
Self-reported propensity to pay tax	A survey question that directly asks respondents how likely they are to pay their full tax liability if a tax collector comes to their house today. Respondents are asked to express this likelihood using the beans.
Coins given to KDC's development fund	Number of coins (out of five) donated during the donation game, a dictator game in which the giver is the respondent, and the receiver is the property tax revenue fund. The value of each coin is about US\$0.05.
Perceived neighbours' propensity to pay tax	Proportion of other property owners in the respondent's village that the respondent thinks will pay their property tax. Expressed using the beans.
Tax morale (secondary outcome)	The respondent is asked to imagine a situation in which they would not be fined or penalised for not paying their property tax. The respondent is then asked if they think it is (morally) right to pay their tax. Expressed using the beans on a ten-point scale.
Own village will benefit from tax	Perceived likelihood that respondent's village will benefit from the property tax. Expressed using the beans.
Other villages will benefit from tax	Out of ten towns in the respondent's chiefdom, how many does the respondent think will benefit from the property tax? Expressed using the beans.
Proportion of revenue towards development	Proportion of the revenue collected from the tax that will be used for development. Expressed using the beans.
Ease of discovering how tax revenue was spent	Perceived ease of finding out how property tax revenue has been spent. Expressed using the beans.
Respondent fined by chiefs if noncompliant	Perceived likelihood that chiefs will fine respondent if they fail to pay the property tax. Expressed using the beans.
Proportion of villages where chiefs fine noncompliers	Out of ten towns in respondent's chiefdom where some people did not pay property tax, in how many will the chief fine property owners who did not pay? Expressed using the beans.
Chief will favour compliant in land allocation	Perceived likelihood that chiefs are more willing to allocate land (for farming, construction, etc.) to people who pay their property tax compared to people who do not pay. Expressed using the beans.
Chief will favour compliant in dispute resolution	In a dispute between two people, perceived likelihood that chiefs would favour a person who has paid their property tax over a person who has not paid. Expressed using the beans.

Source: Author's own from collected data.

Table A4 Summary statistics (control group)

	Mean	SD	Min	Q25	Q50	Q75	Max	N	Missing
Compliance outcomes									
Self-reported propensity to pay tax	6.73	3	0	5	6	10	10	428	0
Coins given to KDC's development fund	1.66	1.44	0	1	1	2	5	428	0
Perceived neighbours' propensity to pay tax	5.97	2.32	0	5	6	7	10	405	23
Tax morale (secondary outcome)	7.36	2.82	0	5	8	10	10	428	0
Legitimacy outcomes									
Own village will benefit from tax	7.11	2.85	0	5	7	10	10	421	7
Other villages will benefit from tax	6.71	2.84	0	5	7	10	10	404	24
Proportion of revenue towards development	6.18	2.61	0	5	6	8	10	417	11
Ease of discovering how tax revenue was spent	4.46	3.09	0	2	4	7	10	426	2
Coercion outcomes									
Respondent fined by chiefs if noncompliant	7.51	2.66	0	5	8	10	10	425	3
Proportion of villages where chiefs fine noncompliers	6.39	3.47	0	4	6	10	10	394	34
Chief will favour compliant in land allocation	7.63	2.46	0	6	8	10	10	425	3
Chief will favour compliant in dispute resolution	6.53	2.79	0	5	6	10	10	426	2

Source: Author's own from collected data.

Appendix 4 Survey sampling

In this section I provide additional details for how I sampled chiefdoms, villages, and respondents for surveying. Kono District contains 14 chiefdoms and roughly 1,300 villages. I used geographic cluster sampling to select 123 villages for the study from a set of 434 eligible villages in five chiefdoms.

Sampling chiefdoms

The research design relies on the development of chiefdom-specific tax awareness videos. Therefore, it was only possible to conduct the study in chiefdoms where we were able to create a tax awareness video with the paramount chief. I reached out to paramount chiefs or senior chiefdom authorities in all 14 chiefdoms and successfully shot videos with senior chiefs in ten of those 14 chiefdoms. For the four chiefdoms where I did not shoot a video, I was unable to schedule a recording session in the three-day period for which I had hired a professional filmmaker.¹⁰⁷ In three chiefdoms, we shot videos not with the paramount chief, but with his representative: I excluded these chiefdoms.¹⁰⁸ I excluded one chiefdom (Gorama Kono) because I judged that the language used by the paramount chief in the video differed too much from the agreed script. Finally, I decided to exclude Toli Chiefdom for practical budgetary reasons. Toli contains less than 2 per cent of the villages in Kono and is the most sparsely populated and least accessible chiefdom in the district. I determined that enumeration costs in Toli would be too high to warrant inclusion in the study. This left five chiefdoms included: Soa, Lei, Gbane, Nimikoro, and Kamara.

Sampling of eligible villages

Here I provide more details on my cluster sampling strategy. I first grouped the 434 eligible villages into 155 geographical clusters, dropping three isolated villages.¹⁰⁹ I then sampled clusters, and within sampled clusters, I sampled villages.

¹⁰⁷ The paramount chief of Sandor was travelling; the paramount chief of Gbane Kandor did not come to Koidu (the district headquarters); and the paramount chiefs of Nimiyama and Tankoro were unable to meet due to scheduling conflicts.

¹⁰⁸ In Mafindor Chiefdom, we filmed the video with the acting regent chief, as the paramount chief recently passed away and a new one has not been elected. In Fiama Chiefdom, we filmed the video with the chiefdom speaker, as the paramount chief is the Kono paramount chief representative in parliament. In Gbense Chiefdom, we filmed the video with the chiefdom speaker at the request of the paramount chief.

¹⁰⁹ Clustering was done within each chiefdom, so that villages were not clustered across chiefdom boundaries. After initial clustering, 25 villages were in clusters of their own. I placed these villages in the closest cluster. In three instances, these one-cluster villages were more than three kilometres from the closest village in their new cluster; I dropped these three villages.

One goal of my sampling process was to generate a final sample that had sufficient variation in two village level characteristics: (i) the distance to the chiefdom headquarters town, where the paramount chief resides, and (ii) the size of the village.

I thus coded each of the 155 clusters along these two dimensions. Within each chiefdom, I coded each cluster into one of six strata that combined three levels on the distance dimension and two levels on the village size dimension. On the distance dimension, villages could be near, middle, or far from the chiefdom's headquarters town. On the village size dimension, clusters were coded as either containing a large village or not, with 'large' defined as at or above the 75th percentile in terms of population. To increase variation along the distance dimension, I dropped clusters coded as a middle distance from the chiefdom's headquarters town. This leaves me with clusters in four strata from which to draw my sample:

1. Clusters near the chiefdom's headquarters town that contain a large village.
2. Clusters near the chiefdom's headquarters town that do not contain a large village.
3. Clusters far from the chiefdom's headquarters town that contain a large village.
4. Clusters far from the chiefdom's headquarters town that do not contain a large village.¹¹⁰

I then wrote a sampling procedure that aimed to balance my final number of observations across each of the four strata. The specifics of the sampling procedure are as follows:

- First, I drew two clusters in each stratum. (There are two strata that contain only one cluster of villages – in these I drew one cluster.)¹¹¹
- Second, I selected two village in each stratum. In strata that contain large villages, I selected one large and one small village.
- Third, I checked whether the number of potential observations in each stratum was at least 100. As a proxy for the number of potential observations in each village, I used the number of structures recorded in the 2015 census.

¹¹⁰ In one chiefdom (Kamara), there were no eligible clusters in the stratum representing large villages and near the chiefdom's headquarters town. Therefore, I have 19 total strata from which to draw clusters.

¹¹¹ Of course, I selected no clusters in the one stratum that contains no clusters.

- Fourth, in strata where the target number of potential observations was not met, I drew an additional village from the set of sampled clusters.¹¹²
- It remains possible that the maximum number of potential observations in a given strata did not reach 100. In this case, I drew an additional cluster from the appropriate cluster stratum.

Selecting respondents

Once in a village, the enumeration team used a random walk strategy to select respondents for the survey. The protocol for this strategy was as follows:

- The enumeration team arrived in the village in the morning and went directly to the house of the village chief (or another village authority if the village chief was not present that day). A letter had been dropped off to village authorities within the previous three days specifying the date of the enumeration team's arrival. Enumeration teams ranged between two and six people, depending on the size of the village.
- From the house of the village chief, the enumerators agreed to walk in separate directions. After agreeing in which directions they would each travel, enumerators used their tablets to select a distance, which told them whether to interview a respondent at the first, second, third, or fourth house in their chosen direction. If the enumerator found no one home at the relevant house, the enumerator proceeded to the next house in that direction.
- The enumerators asked to speak to the person 'most responsible and influential' for making decisions related to the property. If that person was home, the enumerator began the informed consent process to start the interview. If that person was not home, the enumerator asked if he or she would return later that day. If so, the enumerator scheduled a time to return to interview that person. If not, the enumerator asked if there is 'someone else who is involved in decision making related to this property'. If so, the enumerator asked to interview that person. If not, the enumerator attempted to schedule an appointment for later. If that was not possible, the enumerator moved on to a different property.
- After completing an interview, the enumerator used the tablet to select the direction and distance of the next house. Previously interviewed houses (marked by a sticker) were not included in the count.

¹¹² For example, if after step 3 the not-large villages sampled in a given chiefdom contained fewer than 100 structures, I drew another not-large village from the set of sampled clusters in that chiefdom.

- If an enumerator walked past the last structure of the village in a given direction, he or she turned around and finished the count, walking back in the direction they came.
- If an enumeration team completed interviews with all available respondents before the end of the day, they proceeded to their next scheduled village. Otherwise, the enumerators left for their next scheduled village in the morning.¹¹³

¹¹³ Note that in several large villages, enumeration teams were scheduled to conduct interviews for more than one day.

Appendix 5 Attention/manipulation checks

Recalling number and identity of speakers in video

The tax awareness videos contain information that I expect to modify respondents' beliefs in theoretically important ways. First, I check whether respondents can correctly recall the number and identity of the speakers in the video they watched.¹¹⁴ Ninety-four per cent of respondents correctly state the number of speakers and 93 per cent correctly identify the speakers.¹¹⁵ Enumerators asked these questions directly after a respondent watched the video.

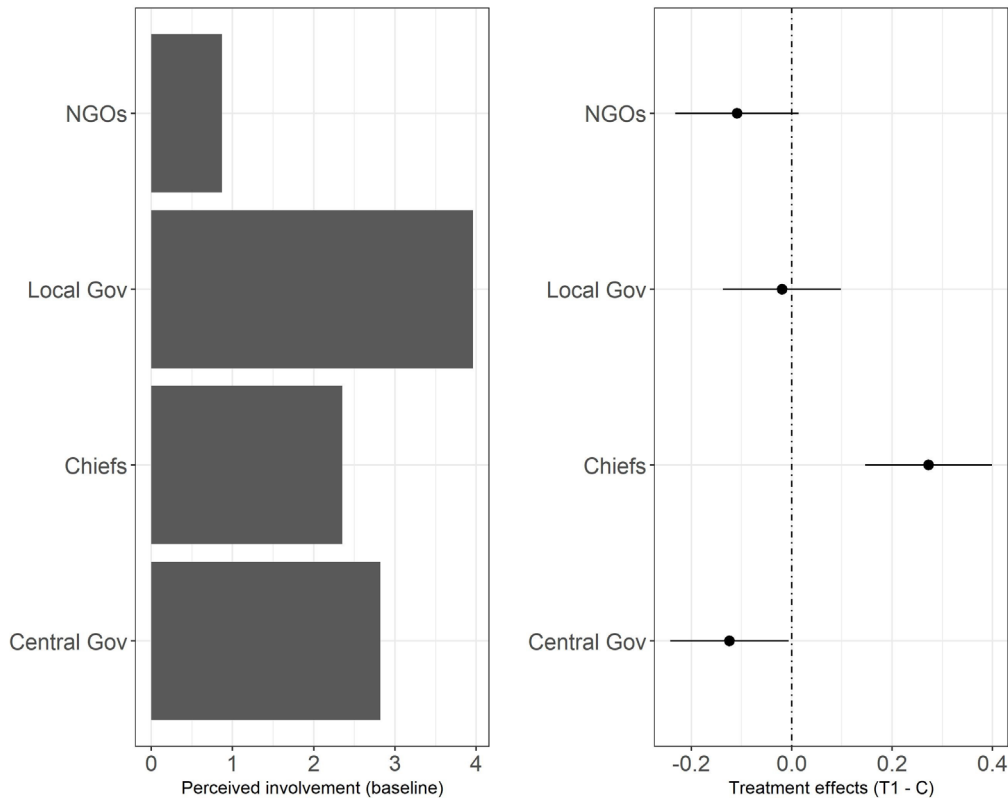
Manipulation check: does T1 increase perceptions of TPI involvement?

T1 attempts to manipulate respondents' perceptions about the collaboration between state actors and TPIs. To measure perceptions of involvement, enumerators presented respondents with a laminated paper divided into four squares, where each square represented one of the four actors: (i) Kono District Council, (ii) TPIs, (iii) the central government, and (iv) NGOs and civil society organisations. Each respondent was then given ten beans and asked to allocate the beans across the four squares, placing more beans on actors they thought were more involved in and responsible for the property tax. The left panel of Figure A.1 displays baseline (i.e., control) perceptions of the involvement of the four actors and the right panel shows the treatment effects of T1.

¹¹⁴ Respondents who see the control video see only one speaker, District Council Chairman Solomon Bundo. Respondents who see treatment videos see two speakers – Chairman Bundo and the paramount chief of their chiefdom.

¹¹⁵ If there were two speakers, this meant correctly naming both.

Figure A1 T1 increases perceived involvement of TPIs



Source: Author’s own from collected data.

Additional attention checks

I checked whether respondents could recall theoretically important messages delivered in the video they watched. At the end of the survey, we asked respondents a set of six yes/no questions, regarding whether statements were included in the video. We asked respondents whether the following statements were discussed in the video they watched:

1. A property tax that will be collected on houses [‘Tax’].
2. The Chiefdom Council is working with Kono District Council on this property tax [‘Collaboration’].
3. After taxes are collected chiefdom authorities will call a meeting to discuss how to spend the money collected [‘Spend’].
4. After taxes are collected chiefdom authorities will call a meeting to discuss how to punish noncompliers [‘Punish’].

5. Tax collectors will be paid 10 per cent of the money they collect ['Salary'].
6. All tax collectors have an identification card with their name and picture ['ID Card'].

Table A.5 reports property owner responses by treatment condition. Column 2 ('n') refers to the number of observations in each treatment group.¹¹⁶ The value in each of the remaining six columns is the percentage of respondents that affirmed that a message was given in the video. First, let's consider a set of three questions that all respondents should answer in a similar way, regardless of treatment condition. Of course, the central messaging of the video is around a house/property tax. Column 3 ('Tax') tells us that across treatment and control groups 95 to 98 per cent of respondents correctly state that the video contained messaging about a house tax.

Respondents were also asked about two statements that did not appear in any video:

- Tax collectors will be paid 10 per cent of the money they collect (column 7, 'Salary').
- All tax collectors have an identification card with their name and picture (column 8, 'ID card').

Respondents did well at identifying statements that were not in the videos. Across treatment and control 85 per cent of respondents correctly state that compensation for tax collectors is not discussed and 78 per cent correctly state that tax collector ID cards are not mentioned in the video. As expected, there does not appear to be meaningful differences between treatment arms.

Table A5 Attention checks

Treatment arm	Tax (1)	Collaboration (2)	Spend (3)	Punish (4)	Salary (5)	ID card (6)	n (7)
C: Tax information	0.95	0.68	0.44	0.42	0.14	0.20	428
T1: TPI collaboration	0.98	0.86	0.53	0.48	0.14	0.22	454
T2: Legitimacy	0.97	0.89	0.78	0.60	0.18	0.24	436
T3: Coercion	0.98	0.90	0.75	0.81	0.15	0.24	433

Source: Author's own from collected data.

Next, let's consider responses to three questions that we do expect to change with the respondent's treatment condition. First, recall that the treatment videos

¹¹⁶ Note that one respondent is dropped from T2 group, who responded 'I don't know' to these comprehension check questions.

attempt to manipulate respondents' perceptions about the collaboration between the state and TPIs. As reference to this collaboration only appears in treatment versions (and not in control), we should see respondents in T1, T2, and T3 more likely to agree that the collaboration between chiefs and state was discussed in the video (compared to control video). Indeed, that is what we see. Respondents in T1, T2, and T3 are respectively 18 percentage points, 21 percentage points, and 22 percentage points more likely to state that collaboration between KDC and chieftom authorities was mentioned in the video.

The goal of the legitimacy treatment (T2) is to prime respondents to legitimacy mechanisms in TPIs, and in the T2 video the paramount chief says he will call a meeting to discuss with his subchiefs on how the collected revenue will be spent. Respondents who watched T2 videos are 25 percentage points more likely to affirm that their videos referred to these meetings, compared to respondents who watched the T1 video.¹¹⁷ In the coercion treatment (T3) the paramount chief says that he will call a meeting with chieftom authorities to discuss how to punish noncompliers. Respondents who viewed the T3 video are 33 percentage points more likely to state that their video contained this message, compared to respondents who watched the T1 video.¹¹⁸

The response patterns from the comprehension check exercise are encouraging. Overall, respondents are good at identifying messaging content that was or was not in their video and responses vary in predicted ways with the video version that respondents watched. However, for questions that involve TPIs, the rate of 'false positives' – respondents affirming that a message was delivered in their video when in fact it was not – is high. For example, 68 per cent of respondents in the control video (column 'Collaboration') affirm that the video discussed collaboration between the local government and the chieftom council when this was in fact not the case. What should we make of this rather high 'false positive' rate?

I argue that the six recall questions should be considered a hard test and that the high rate of false positives is indicative of the difficulty of the test, rather than a lack of respondent comprehension. First, the recall questions are designed as leading questions ('was X in the video?'), which likely generates the confirmation bias that I am here calling a 'false positive'. This seems to be only part of the explanation, as this confirmation bias should be consistent across all questions, but we see higher rates of false positives for recall questions about TPIs. Second, recall questions were asked at the end of the survey, whereas the video was

¹¹⁷ This increase jumps to 34 percentage points when comparing T2 to the pure control.

¹¹⁸ This increase jumps to 39 percentage points when comparing T3 to the pure control.

shown at the beginning of the survey. The motivation for putting these recall questions at the end of the survey is to avoid priming respondents before measuring outcomes. For example, asking respondents if the video mentioned collaboration between government officials and TPIs might prime control respondents to think about chiefs when they otherwise would not have. The tradeoff is that by placing comprehension questions at the end, survey questions that come prior to the comprehension check questions can also prime respondents. More concretely, respondents are first asked a host of survey questions about TPIs, then at the end of the survey respondents are asked if the video they watched contained messaging about TPIs. It is possible that respondents infer that the subjects they were asked about in the survey (i.e., TPIs) are likely to have been addressed in the video. Third, placing the recall questions at the end of the survey creates a time lapse between the video and the recall questions, which may lower recall.

Table A6 Attention checks (pilot)

Treatment arm	Tax (1)	Collaboration (2)	Spend (3)	Punish (4)	Salary (5)	ID card (6)	n (7)
C: Tax information	0.89	0.30	0.20	0.07	0.09	0.04	46
T1: TPI collaboration	0.93	0.72	0.10	0.14	0.00	0.00	29
T2: Legitimacy	0.92	0.76	0.70	0.24	0.00	0.03	37
T3: Coercion	0.94	0.81	0.50	0.50	0.06	0.11	36

Source: Author’s own from collected data.

If the high false positive rate is driven mainly by the placement of the recall questions at the end of the survey (rather than general lack of comprehension), we should see much lower false positives if the recall questions were asked directly after the video. Prior to undertaking my primary data collection, I conducted a pilot survey where we did ask recall questions directly after the video. Table A.6 shows results from that pilot. False positive rates in the control group plummet. Only 30 per cent of respondents who watch the control video incorrectly state that their video discussed collaboration, down from the 68 per cent we saw in our true study. Rates of false positives drop across each of the other four comprehension check measures.

Appendix 6 Intervention development

The tax awareness video was developed in a series of meetings that were attended by members of the Kono Revenue Mobilization Team between 2018 and 2021. Early meetings focused on the development of tax collection protocols and programme infrastructure. After 2019, the focus of the meetings shifted toward strategies to improve tax compliance. An awareness-raising campaign ('sensitisation plan') was one oft-discussed strategy for increasing tax compliance. At a July 2020 meeting, the KDC requested that I develop a proposal for that campaign.

At a November 2020 (Zoom) meeting, I presented a proposal for a video-based property tax awareness campaign, involving both KDC officials and traditional leaders. I had two motivations for including traditional leaders in the tax awareness video. First, there was consensus amongst the Revenue Mobilization Team that (i) property owners were unaware that their traditional leaders were collaborating with KDC on the property tax, and (ii) effectively communicating traditional leader involvement to property owners would increase compliance. Second, several tax collectors interviewed reported that they believed property owners would be more willing to pay property tax if they knew their traditional leaders were collaborating with KDC on the property tax.¹¹⁹ The proposal was met with general approval, and I was directed to continue developing plans for a tax awareness video that contained local government officials and traditional leaders.

At a January 2021 meeting in Kono, the Revenue Mobilization Team agreed on the basic contours of a tax awareness video, including the three key messages that traditional leaders should emphasise (collaboration with KDC, accountability, and enforcement). I then met with senior paramount chiefs to workshop the video script.

Chiefdom-specific tax awareness videos were recorded and edited in March 2021. Kono District is named for its predominant ethno-linguistic group, and I expected Kono speakers to dominate our sample. That said, Kono District also contains a significant non-Kono speaking population. Therefore, we filmed the tax awareness videos in both Kono and Krio (an English-based creole that is the country's lingua franca). As Kono is not a written language, the video script was

¹¹⁹ In late 2019 and early 2020, I worked with a research assistant to interview tax collectors to understand what they thought would increase compliance. Several stated that they were more successful collecting taxes when property owners knew that their traditional leaders supported and were involved in the property tax. For example, a tax collector from Tankoro Chiefdom noted, 'Well, if the paramount chief calls a meeting. When the chiefs are more strongly backing this thing [the property tax], that's going to make people pay. You know that the community people fear/respect their authorities' (my translation).

written in Krio. When filming, we first walked chiefs through the Krio script and then filmed the Krio version. Before filming the Kono version, chiefs listened to a prepared Kono recording and practiced the script with a Kono-speaking senior research assistant. We recorded the videos segment by segment; when chiefs deviated meaningfully from the script, we reshot the segment.

We shot tax awareness videos with traditional leaders in ten chiefdoms, and I conducted this study in five of those chiefdoms.¹²⁰ In four of these chiefdoms, we filmed both Kono and Krio versions. In one (Nimikoro), we only filmed a Kono version, so property owners who did not speak Kono were excluded.¹²¹

¹²⁰ The selection of chiefdoms is discussed in Appendix 4.

¹²¹ In Nimikoro, as in other chiefdoms, we first discussed the script in Krio. However, the paramount chief requested that we film the Kono version before the Krio version. After finishing the filming of the Kono version, the chief left to attend another appointment; we were unable to meet again to film the Krio version while the filmmaker was in Kono District.

Appendix 7 Kono videos translation/transcriptions

This appendix provides translations for Kono versions of the tax awareness videos. For each of the five chiefdoms, we created three treatment video segments. The control video (with only the District Council Chairman) is the same across all chiefdoms. There are two translations for each video segment. One translation was done by my lead research assistant. A second translation was done by the founder of a local research and capacity building NGO.

Control: Tax information

Translation 1: Good morning, good evening, good night. It's your son Solomon Sahr Bundo, Chairman on top the Kono District Council. As you all know, going further – in the morning hours people are calling for water well, roads and other things, they spoke of going further– and as you know going further does not happen for free, it involves money. And this money, we as Kono people, we can come together and gather our money, that will make us to go further.

Everybody that constructs a house, any kind of house, it can be a stick house, it can be zinc house or storey building, you should give money for that house. This will make the country to go further.

For this reason, we sit and discuss what you should give for your house for a year – not a month, but a year. The money that I am calling now is for a year. This is what we give for our house for a year. This money you give is not for a month, but a year:

- Thatch house, stick house. The money you give, they call it in Leones 20,000 [calls amount in Krio]. As I say, the money you give for stick house and thatch house is 20,000 Leones [This time calls amount in Kono].
- A stick house with a zinc roof is 30,000 Leones [calls amount in Krio].
- If you construct a dirty block house, without giving it cement, you only put your block, but you did not plaster it and cover it with a zinc, you pay 40,000 Leones.
- The dirty block you plaster with cement, you plaster both in and outside of the house – that is 50,000 Leones.
- If you construct a house, you plaster both in and outside, with a toilet inside – there are many of these now in our villages – you pay 80,000 Leones.
- Now if you want to construct a house and you want to do it with cement block, but you don't put a toilet inside the house, you pay 120,000 Leones.

- If you construct it now, a concrete house with a toilet inside – they call it ‘self-contain concrete house’ [Krio], we call concrete, you construct it with cement, you have the toilet inside the house, you pay 150,000 Leones.
- If you construct your house as a one-storey building, whatever happens it’s a storey building – no matter, they can’t build a storey building with mud, they only construct cement block with a storey building – you pay 300,000 Leones.
- If you have more than one storey in that particular house, it can be one, two, or three or even you touch the sky, we have put this in one category, and you pay 400,000 Leones.

Please, I am apologising. Let’s gather our small money so we can construct our roads, we can maintenance our water wells and build our schools. That will make Kono to go further. It’s me, as I started that is how I am going to end it, it is your son Solomon Sahr Bondu, Chairman of Kono District Council. Thank you very much for listening.

Translation 2: Greetings my people! Good morning, good afternoon and good evening. This is your son Solomon Sahr Gbondo who is heading the Kono District Council. As all of you may know, people are calling for development projects like boreholes, roads rehabilitation and other many more things. But it is worthy of note that development projects come with a price, it does not happen out of nothing, funds are needed to finance it, these projects. With regards to that, we the people of Kono should come together, work in unity to raise these funds to achieve our development goals.

I want people to know that those that own houses, whether it is constructed with sticks and mud-bricks, covered with local roofs or zinc, cement houses and concrete storey buildings, must pay property taxes for that particular structure. After series of engagement, we have agreed that house owners should pay the following amount annually or yearly, please note that, it is not a monthly but yearly and should be done once a year.

- Stick house, with local roof. That is, palm trees leaves. You pay 20,000 Leones.
- Unpaved mud-bricks house with zinc roof. You pay 30,000 Leones.
- Mud-bricks house paved with cement in and out and covered with zinc roof. You pay 40,000 Leones.
- Mud-bricks house paved with cement and has toilet facilities inside. You pay 50,000 Leones.

- House built with cement bricks without toilet facilities inside. You pay 80,000 Leones.
- House built with cement bricks with toilet facilities inside. This is also known as 'self-contain concrete house'. You pay 120,000 Leones.
- One-storey building. You pay 300,000 Leones.
- More than one-storey building. It can have multiple floors. You pay 400,000 Leones.

Please, let us pay our taxes in order for us to be able to carry out development projects in the district like roads rehabilitation, digging of boreholes, building of schools, and other things. If we commit ourselves to such, we will be able to move on with our development projects for the good of the districts. I will conclude in the similar way as I introduced myself at the beginning of the video: I am your son and Chairman of Kono District Council, Solomon Sahr Gbondo. Thank you all!!

Treatment 1: TPI collaboration

Nimikoro Chiefdom

Translation 1: My people, good afternoon. Nimikoro good afternoon, Kono people good afternoon. This is your chief, Paramount Chief Aiah Denti Formansah Bono III, Nimikoro, Kono. My people, I want to tell you that Nimikoro Chiefdom and Kono District Council are working together to collect tax for our properties, our houses.

Translation 2: Greeting's relatives, Nimikoro and people of Kono! This is your Paramount Chief – doubling as head of the Poro Secret Society in his chiefdom – Aiah Denton Bona the III of Nimikoro Chiefdom. My people, let me take this opportunity to inform you that Nimikoro Chiefdom Committee is working in collaboration with the Kono District Council to ensure we pay taxes for our houses. It is called 'property tax' in the White Man's English language.

Gbane Chiefdom

Translation 1: Gbane good afternoon. This is your Chief Aiah Bindi Faefankongor II. Gbane Chiefdom and Kono District Council are working together to collect tax for our properties, especially houses, for us to pay for them.

Translation 2: My Gbane people, I greet you all. This is your Paramount Chief Aiah Bindi Faefankongor the II. Gbane Chiefdom and Kono District Council are working in unity or collaboration to collect property taxes – more importantly taxation for houses – which we should pay.

Lei Chiefdom

Translation 1: My people, good afternoon. This is your Chief Sahr Cheety Mani, Lei Chiefdom. My people – Lei Chiefdom is working with Kono District Council to collect property tax for everyone to pay for their house.

Translation 2: Greetings my people! This is your Paramount Chief Sahr Cheety Mani of Lei Chiefdom. My people, the Paramount Chief of Lei Chiefdom is working in collaboration with Kono District Council to ensure people pay taxes for their houses.

Soa Chiefdom

Translation 1: It's me, Paramount Chief Emmanuel Tamba Torcheor Foryoh IV, Soa Chiefdom. Soa Chiefdom Council and the Kono District Council have sat together so that they can collect house rate from us that have built houses. It is called property tax, and it is to be collected to develop our chiefdom.

Translation 2: I am Paramount Chief Tamba Emmanuel Torcheor Foryoh the IV of Soa Chiefdom. The Soa Chiefdom Council and the Kono District Council held a meeting and have agreed to collect revenue through payment taxes for our houses which we house owners should pay. It is called 'property tax'. We should collect property tax revenues in order for us to be able to fund our development projects in Soa Chiefdom.

Kamara Chiefdom

Translation 1: My people good afternoon. This is your chief, Chief Ngekia, of Kamara Chiefdom. Kamara Chiefdom and Kono District Council are working together so that our taxes will be collected together, and our house rates also together.

Translation 2: My people, greetings. This is your Paramount Chief, Chief Ngekia of Kamara Chiefdom. The Kono District Council and Kamara Chiefdom have agreed to collect taxes, among these taxes are house tax payment.

Treatment 2: Legitimacy***Nimikoro Chiefdom***

Translation 1: The reason why I will call Nimikoro Council – we call it in English 'Nimikoro Council Committee' – this Nimikoro Council, we'll call everyone and present the money and ask what will we do with the money, so that a single person will not take the money and put it in his own pocket and it will not benefit Nimikoro. If this money is gathered and you didn't see any good thing that the

money brings, and it didn't bring any benefit in Nimikoro Chiefdom, you will not be happy and you will get angry at me.

Translation 2: The reason for this notice is to notify you that after the taxes from property owners have been collected, we will summon everyone to a meeting and present the money for all of us to see the pool of money that has been collected. Then we will inquire of the people what should be done with the revenue collected with regard to undertaking chiefdom development projects. We are doing such to discourage anyone who may have a plan to siphon or misappropriate the funds collected for his or her personal gains at the expense of Nimikoro Chiefdom's interest. After the tax revenue collection exercise, if the people understands that nothing significant is done to facilitate development projects from the money collected, it will spur dissenting view in the minds of the people and they will be annoyed with me.

Gbane Chiefdom

Translation 1: After the collection, I will call a meeting with my chiefs so that we will discuss on the use of the money. I believe that if the right work is not done with the money you will not be happy for Gbane.

Translation 2: After we would have finished collecting the tax payment, I will summon a meeting, in this meeting, I shall request the presence of other subordinate chiefs in the chiefdom for us discuss and map out ways of how the money collected (tax funds paid) is going to be utilized. I am of the belief or conviction that if we do not utilize the funds collected in the best way for the development of the chiefdom, you the chiefdom people will be annoyed.

Lei Chiefdom

Translation 1: When the money is collected, I will call my chiefs for us to sit together and know what we will do with the money for us to develop this chiefdom. I know that this money, if it does not benefit Lei, you will not be happy.

Translation 2: When we are done collecting the taxes. I will summon a meeting that will bring together my subordinate chiefs for us meet, discuss and bring up resolutions on how we are going to use the money collected to foster development projects in the chiefdom. I am aware that people will not be happy if the chiefdom do not experience a huge benefit out of the collected money.

Soa Chiefdom

Translation 1: The money that would be collected from Soa, here, I will call my chiefs and the Chiefdom Council will sit together and we'll arrange how we will work with the money. I know that the money collected, if we didn't work with it correctly, no one will be happy here in Soa.

Translation 2: When the tax funds would have been collected, I will invite my subordinate chiefs and some members of the Chiefdom Council to a meeting in a bid for us to discuss and map out resolutions on how the funds will be utilized. I am mindful of the fact that people will not be pleased, if the tax revenues collected are not properly used to facilitate development projects in the chiefdom.

Kamara Chiefdom

Translation 1: When the taxes are collected, I will call a meeting for everyone to come for us to know the money collected, and what work will we do with it. I know if this tax did not bring any benefit to us here in Kamara, we will not be happy.

Translation 2: After the taxes would have been collected, I will summon a meeting where all the people will be invited to understand and decide on what we will do with the tax funds collected. I am aware that the people of Kamara Chiefdom won't be happy if the money collected does not bring benefits to the chiefdom.

Treatment 3: Coercion

Nimikoro Chiefdom

Translation 1: Why, when we finish collecting the money we will all come and sit together – we will fine those who did not agree to pay their own taxes – and discuss what we will do them. We will not be sorry for anyone... when we call a meeting, you that didn't agree, we and the other chiefs, starting from me the Paramount Chief down to all the other chiefs in our villages, we will not be happy with anyone who did not pay the tax. If you did not pay, we will charge you and we will not feel sorry for you. We will fine you and take you before court.

Translation 2: Furthermore, another meeting will be summoned, where all of us will meet to discuss and take actions against those who may have refused to pay the property tax. We will not be merciful to anyone who is guilty of tax evasion. During that meeting, I and the other subordinate chiefs in all the towns, even down to the least hamlet in this chiefdom, will stand tough in ensuring we bring actions against tax evaders, if even it is going to an extent of prosecuting them in the court of law.

Gbane Chiefdom

Translation 1: After the collection I will call a meeting with other chiefs for us to discuss and know how to deal with those that didn't pay for their houses. In addition to that, myself and the other chiefs will not be happy with anyone who did not pay for his house.

Translation 2: Also, after the collection of these taxes, I will hold another meeting with the chiefs to engage or brainstorm on what to do with those that have

refused to pay taxes for their houses. Let me emphasise that I and the rest of the chiefs will not be merciful on anyone who have refused to pay the tax.

Lei Chieftdom

Translation 1: When this money is collected, we will sit with my chiefs for us to decide, those that did not pay for their houses, what we will do with them. Me and the other chiefs we will sit and we will not take kindly to anyone who did not pay for their houses.

Translation 2: Furthermore, after the conclusion of the tax collection exercise, I will summon a meeting again with the chiefs to engage on what actions we should bring up against those that have evaded the payment of taxes for their houses. We will not be merciful or lenient with anyone that does not honour the payment of tax for his or her house.

Soa Chieftdom

Translation 1: In addition to that, when the tax is collected, I will call my chiefs, we will sit together and find out to know, who actually denied to pay the house rate. And these house rates, those who denied to pay, we will find a solution how to deal with them so that tomorrow other people will not deny to pay.

Translation 2: In addition, after tax revenues will have been collected, I will summon my subordinate chiefs to another meeting again. In this meeting, we will discuss issues pertinent to house owners who may have refused to pay their property tax. Furthermore, we will develop strategies that will discourage the act of property tax evasion to deter people not to evade tax in the future. We will not be tolerant to those who refused to pay their property tax. Such persons will be categorized or listed as individuals who do not like the development of Soa Chieftdom.

Kamara Chieftdom

Translation 1: When the tax is collected, I will call a meeting again for us all to come and sit and know those who didn't pay taxes for their houses, what we will do with them. My self and the other chiefs will [not] take kindly to anyone who did not agree to pay tax for his house.

Translation 2: When the house tax payment exercise concludes, I will summon another meeting where all of the people will be invited to meet and agree on actions that we will take against those people in the chieftdom that have evaded or defaulted in paying their taxes. I and the rest of the chiefs will not be merciful or compassionate on anyone who flouts paying their taxes.

Appendix 8 Qualitative results: additional tables

Table A7 Common byelaws (village, section, chiefdom)

Mentioned byelaw	Village (%)	Section (%)	Chiefdom (%)	Any (%)
Any law	94	71	68	97
No stealing	41	34	39	65
No abusive language	40	17	19	51
No fighting	28	13	15	39
Participate in communal labour	13	14	14	27
No adultery	15	6	6	19
No rape	3	8	10	15
Law regulating crop harvest	3	5	4	10
Law regulating livestock	0	8	6	9

Notes: Table A.7 reports byelaws most commonly mentioned by respondents during semi-structured interviews. Columns village, section, and chiefdom present the percentage of respondents who mention a given law at this administrative level. The column any is the percentage of respondents who mention this law at any administrative level. Percentages are rounded to the nearest integer. Source: Author's own from collected data.

Table A8 Legitimacy: participation in local policy making

	% Agree	% Disagree	% Unclear
Meetings called to discuss byelaws			
Village	97.8	0.0	2.2
Chiefdom	97.1	0.0	2.9
Representatives invited to byelaw meetings			
Chiefdom	93.6	1.8	4.7
Active participation for meeting attendees			
Village	83.9	8.6	7.5
Chiefdom	78.3	3.7	18.0

Notes: Table A.8 describes respondents' perceptions of participation in local policy making. Interviewers asked respondents about the creation of town, section and chiefdom level byelaws, without explicitly mentioning meetings. For ease of exposition, I combine responses about section and chiefdom level meetings. For the first outcome, respondents coded as 'agree' ('disagree') explicitly mention that a meeting was (not) called. For the second outcome respondents are coded as 'agree' if they say that representatives would be called to attend either section or chiefdom level meetings. For the third outcome, research assistants coded interviews for evidence of active participation ('agree'), evidence of lack of participation ('disagree'), or no evidence for either ('unclear'). Throughout, respondents are coded as 'unclear' for a given outcome when their response is ambiguous or when they don't answer a given prompt. If the interviewer did not ask the question, the respondent is removed for that outcome.
 Source: Author's own from collected data.

Table A9 Communal labour: monitoring and punishment strategies

	Village	Chiefdom	Either
	(%)	(%)	(%)
Communal labour			
Monitoring: any			
	60	83	90
Youth leader informs authorities	46	44	67
Authorities personally identify	8	42	46
Authorities keep attendance list	9	24	33
Punishment			
Fines	60	83	90

Notes: Table A.9 presents qualitative evidence of TPIs' monitoring and punishment strategies for communal labour. Interviewers' prompt: 'What happens if someone who was supposed to participate in community labour does not? Would the village (chiefdom) leaders find out? Would they do anything?' Percentages are rounded to the nearest integer.

Source: Author's own from collected data.

Table A10 Traditional leader performance and communal labour

	% Agree	% Disagree	% Unclear
Panel A: Traditional authorities' performance			
TPIs enforce laws well			
Section	15.2	1.44	
Chiefdom	10.1	2.16	
Either	26.0	4.10	
TPIs are doing well to bring development			
Section	28.7	44.8	
Chiefdom	36.5	38.1	
Either	50.8	61.9	
Panel B: Communal labour			
Communal labour directed towards broad public benefits			
Town	82.6	7.0	10.5
Section	74.6	11.3	14.1
Chiefdom	65.5	18.2	16.4

Notes: Table A.10 provides qualitative evidence that TPis use coercion legitimately. Panel A presents citizens' perceptions of the performance of traditional authorities. The prompts were: 'Please tell me something the leaders of this section (chiefdom) are doing well?' and 'Please tell me something the leaders of this section (chiefdom) could be doing better, that is, could improve?' Responses are coded as 'agree' if the informants named law enforcement (top outcome) or development (bottom outcome) as something authorities were doing well and 'disagree' if the informants stated that authorities could improve on those dimensions. Panel B presents respondents' perceptions regarding the benefits of mandatory communal labour. Interviewers prompted 'Is the communal labour called for by the town (section, chiefdom) leaders usually used in a fair way that benefits the community or is it used in an abusive way that benefits only a few people?' Responses are coded as 'agree' if respondents say community labour is used for broad community benefits, 'disagree' if respondents say community labour is sometimes or often used for narrow benefits, and 'unclear' if the response is ambiguous or there was no direct response to the question.

Source: Author's own from collected data.

Table A11 Local tax: monitoring and punishment strategies

	Village	Chiefdom	Either
	(%)	(%)	(%)
Local tax			
Monitoring: any			
	52	49	68
Roadblocks/checkpoint	11	28	32
Door-to-door checks	23	5	24
Authorities keep records	20	6	24
Punishment: any			
	69	55	78
Fines	36	40	55
Taken to higher authorities	34	25	45
Banned from farming	9	2	9

Notes: Table A.11 presents qualitative evidence of TPIs' monitoring and punishment strategies for local tax. Monitoring interview prompt: 'Did village (chiefdom) leaders do anything to check if people had paid local tax this year (2022)? Or do they not do anything like that?' Punishment interview prompt: 'When village (chiefdom) leaders found out that someone had not paid, did they do anything about it, or did they not do anything?' Percentages are rounded to the nearest integer.

Source: Author's own from collected data.

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