

Indirect rule in Sierra Leone: Evidence from property taxation

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1 Introduction

For many countries in the Global South state capacity is limited (Hanson and Sigman 2021).¹ Traditional political institutions (TPIs) coexist alongside many governments in contemporary Sub-Saharan Africa (Baldwin 2016) and across much of the world (Holzinger et al. 2016), governing important aspects of day-to-day life, such as dispute resolution and land allocation (Baldwin and Raffler 2019; Goldstein and Udry 2008). For leaders of weak states, one potential solution is to collaborate with TPIs to accomplish state goals by securing compliance with state policy from citizens. Recent work has documented ongoing and new relationships between the state and TPIs in contemporary Africa (e.g. Buur and Kyed 2007). This article seeks to contribute to this literature by explicitly testing if this collaboration helps state leaders achieve their goals. Moreover, the consequences of this collaboration for the state’s legitimacy and long-term state building prospects likely depend on the source of TPIs’ authority. If TPIs are “decentralized despots” (Mamdani 1996) whose authority is fundamentally coercive and unaccountable, state collaboration with TPIs may (further) undermine legitimacy and ultimately long-term state building. On the other hand, if TPIs’ authority stems from their legitimacy (Logan 2013), collaboration may boost citizens’ perceptions of state legitimacy and further integrating TPIs within the state administrative structure may be an appealing long-term state building strategy.

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. In Sierra Leone, the land beyond the peninsula that contains the capital city of Freetown is divided into 190 chiefdoms. The territory of each chiefdom—while also under the jurisdiction a state local government—is governed in large part by a chiefdom council and a group of hierarchically organized chiefs.² I embedded an experiment within a tax awareness video that I designed in conjunction with the local government in Kono district (KDC) and the district’s paramount (i.e., highest ranking) chiefs. To identify the impacts of state collaboration with TPIs on citizens’ compliance, I manipulated the presence of paramount chiefs in these videos and therefore property owners’ beliefs about collaboration between local government and chiefs. I evaluated the impact of these videos using survey data collected from 118 villages across five chiefdoms in Kono district. I find that videos designed to manipulate respondents’ perceptions of collaboration between the KDC and TPIs (Collaboration Treatment) increase a pre-registered index of tax compliance measures. In addition, I find that the Collaboration Treatment increases property owners’ belief that they *should* pay taxes.³

To tease out whether TPI authority is driven by legitimacy or coercion, I take a two-pronged, multi-method approach. First, I test these arguments experimentally, again relying on ma-

¹In this article, I follow Joel Migdal’s definition of state capacity as the capability of the state to “achieve the kinds of changes in society that their leaders have sought through state planning, policies, and actions” (Migdal 1988, pg. 4). This definition is representative of the literature. As Hanson and Sigman (2021) point out “many works share the central idea that state capacity relates to the state’s ability to implement its goals or policies”.

²The top political authority of each chiefdom is the paramount chief, elected for life by the chiefdom’s elite (chiefdom councilors), with candidates drawn from a restricted set of ruling families (see Acemoglu et al. 2014). Chiefdoms are further divided into sections that contain a number of villages headed by section chiefs and town chiefs, respectively.

³In the tax compliance literature this belief is referred to as “tax morale”.

nipulations I introduced to the tax awareness video. In additional versions of the video, I manipulate the paramount chiefs' statements to emphasize either accountability mechanisms in TPIs or punishment for non-compliance (i.e., coercive mechanisms). In line with arguments that emphasize coercion as a source of TPI authority, I find that priming respondents to think about punishment for non-compliance increases my measure of compliance. With respect to arguments that point to legitimacy a source of TPI authority, I find that the legitimacy prime (T2) increases compliance outcomes, but that this increase is not statistically significant (t -statistic = 1.33). Second, using qualitative data from 300 interviews conducted with citizens in four of the five study chiefdom, I provide a thick description of TPIs' legitimacy generating mechanisms and coercive capacity.⁴ In line with arguments that emphasize the legitimacy of TPIs, respondents describe high levels of participation in local policy making—local laws are debated and agreed upon during local meetings with active participation. With respect to coercion-based arguments, respondents overwhelmingly report that TPIs have effective strategies for detecting and punishing non-compliance with two existing policies: a local head tax and mandatory labor contributions.

Having found evidence that TPIs possess both legitimacy and coercive capacity, I argue that TPIs use coercion legitimately to uphold local laws that have broad public support and are socially beneficial. To make this case I turn to qualitative data and show that (1) citizens' support TPIs law enforcement efforts and (2) mandatory public contributions are directed at public goods, rather than towards chiefs' private ends. I find no evidence that TPIs use coercion despotically,

Finally, in exploratory (i.e., not pre-registered) analyses, I find suggestive evidence that the effect of the collaboration treatment varies across chiefdoms. Using two chiefdom level vignettes about law enforcement I suggest that state collaboration with TPIs generates greater compliance where TPIs exercise their coercive capacity legitimately, rather than despotically.

My research makes two contributions to comparative politics. First, influential accounts of fiscal capacity fail to illuminate how contemporary, low-capacity democracies might build fiscal capacity in the absence of (the threat of) war. My work shows that state leaders can increase their capacity to accomplish key state goals, such as resource extraction, by investing in collaborative relationships with non-state political institutions. Moreover, my argument may help to explain the continued existence of TPIs—weak state depends on them to get stuff done. My work warns against state-centric foreign support that ignores or intentionally attempts to undermine non-state political institutions.

Second, 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 constituent consent. While descriptively illuminating, existing observational scholarship fails to establish convincing counterfactuals. My work brings experimental data and thick qualitative description to bear on these arguments and goes beyond the literature's dichotomy to show that legitimacy and coercive capacity are complementary components of TPIs' authority. My work cautions against calls to remove non-state political institutions, even where leaders are unelected, as they may possess non-electoral legitimating mechanisms. More generally, this provides insight into how political institutions establish legitimacy in the

⁴This version uses data from 142 interviews.

absence of elections.

[**Expend intro everywhere:** 3-4 pages]

2 Theory

2.1 Can State Collaboration with TPIs increase citizens' compliance?

In this project, I study 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 capacities of TPIs. This body of work offers divergent predictions about the impact of collaboration on tax compliance.

On the one hand, recent path-breaking research has demonstrated the central role played by contemporary TPIs in the political economy of many countries in Sub-Saharan Africa, where they influence local governance (Baldwin 2016), impact development outcomes (Acemoglu et al. 2014; Baldwin 2019), and mobilize votes during elections (De Kadt and Larreguy 2018; Nathan 2019). Baldwin and Holzinger (2019) estimate that 83% of the population of sub-Saharan Africa is governed, at least in part, by traditional political institutions. The importance of TPIs in the local political economy suggests that these institutions may be able to obtain citizens' compliance with tax demands. Further, it is well known that Colonial governments often collaborated with TPIs to accomplish the goals of the colonial state—such as the suppression of the slave trade, security of trade routes, and tax collection (Crowder 1968, 1964)—and recent work has documented ongoing and new relationships between the state and TPIs in contemporary Africa (e.g., Buur and Kyed 2007; Holzinger et al. 2016).

On the other hand, we have little evidence on the impact of this modern day collaboration and if governments could increase tax compliance by collaborating with TPIs we might expect to see more instances of tax collection collaboration across the continent. Indeed, there are good reasons to be skeptical that government collaboration with TPIs will increase tax compliance. First, if TPIs are illegitimate institutions whose authority rests squarely on their coercive capacity (e.g., Mamdani 1996), state collaboration with chiefs may undermine citizens' existing willingness to comply. If TPIs rely on unpopular mechanisms to secure compliance locally, any increase in compliance generated by TPIs' coercive capacity may be offset by declining citizen consent. Second, TPIs may have limited authority independent of the communities over which they preside. Given that many scholars have argued that TPIs are consensus based / communal institutions (cite), citizens' compliance with local laws may be a function of individuals' participation in the creation of these laws and the potential of social sanctions from other community members.⁵ In this case, TPIs are mechanisms to coordinate communal interests and state efforts to enlist the collaboration of leaders of TPIs may have little impact on citizens' compliance. Third, in a similar vein, TPIs may possess limited authority independent of the state. In some instances, the state may choose to delegate tax collection to leaders of TPIs, rather than state agents. If citizens comply because tax demands are issued on behalf of the government, rather than because demands are issued by TPIs, similar (or better) compliance levels could have been achieved by delegating tax

⁵For example, while rule breakers may be issued a fine by the chief, it may be that only the threat of community ostracization compels individuals to pay these fines.

collection to a state agent. In this case, leaders of TPIs act only to substitute for agents of the state, but do not increase compliance vis-à-vis a state agent.

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

2.2 What is the source of TPIs’ authority?

If TPIs can secure citizens’ compliance with a state tax, how are they able to do?

To exert influence over the local political economy, leaders of TPIs must secure citizens’ compliance with their directives and demand. For example, TPIs are only important for local governance if citizens comply with the decisions they reach in local courts or regarding land use. Moreover, TPIs meaningfully impact local development only if citizens comply with local laws or chiefs’ directives to provide local inputs, such as labor and local materials (e.g., mud bricks), to fix feeder roads or “co-produce” development projects. How do leaders of TPIs obtain compliance from local populations? The literature offers two models of TPIs. According to a first model, TPIs are fundamentally **despotic** and obtain compliance through coercion. In contrast, a second model argues that TPIs are fundamentally **legitimate** and obtain compliance through consent.

This first model of TPIs that emerges from the literature argues that TPIs exert control fundamentally through coercion and are essentially despotic. In Mamdani (1996)’s influential account, colonial governments undermined existing accountability mechanisms within indigenous political institutions and enabled chiefs—the political leaders of TPIs—to become “decentralized despots”. In Mamdani’s view, chiefs’ despotic control is sanctioned by a state that values political stability above the political rights of people in rural areas. Ntsebeza (2004) argues that it is state incompetence and weakness, rather than state sanction, that allows TPIs to be despotic.⁶ In these accounts, TPIs generate compliance through deterrence, monitoring behavior and meting out punishment to those who fail to fall in line (Becker 1968; Allingham and Sandmo 1972). Deterrence arguments have broad empirical support in the literature on tax compliance (Kleven et al. 2011; Slemrod 2019).⁷ In line with deterrence theories of compliance, scholars have emphasized the capability of TPIs to monitor and punishing non-compliance. TPIs can monitor compliance through hierarchically structured organizations which extend to the village level (**cite** and elaborate). Chiefs can issue fines to subjects’ that break local laws (**cite**) or fail to turn out for mandatory labor (**cite**). Alternatively, subjects may fear that non compliance will be punished with bias in future decisions regarding (1) the allocation or use of land (Goldstein and Udry 2008; Koter 2013) or (2) resolution of local disputes (Mokuwa et al. 2011), systems which TPIs have influence over across much of sub-Saharan Africa (Baldwin and Raffler 2019).

The second model has emerged in more recent scholarships and paints TPIs as fundamentally legitimate institutions (Logan 2013). In a review of Afrobarometer data, the most comprehensive survey data on attitudes towards Traditional Leaders, Logan and Amakoh (2022) present data that seems to belie the interpretation that TPIs are fundamentally despotic and unac-

⁶This distinction is summarized nicely by Logan (2013).

⁷cite other literature: regulatory compliance and criminal justice compliance

countable. Traditional Leaders are more trusted, seen as less corrupt, have higher approval ratings, and are perceived as better listeners than elected officials. Further, 51% of respondent say they would like to see these institution have more influence in local governance, while only 13% of respondents say they would like to see them have less.⁸ In this vision subjects voluntarily comply with TPIs’ directives because these institutions are perceived as legitimate. 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). Research has found that legitimacy, or related concepts such as political trust, impacts citizens’ compliance with police and the courts (Tyler 2006), military service demands (Levi 1997), taxes (Levi 1988), and COVID-19 regulations (Bargain and Aminjonov 2020).⁹

Scholars argue that political leaders or institutions can generate trust and legitimacy by following the rule of law (Weber 1921), by allowing citizens’ input in the policy-making process (cite), and by governing effectively (e.g., Keele 2007).¹⁰ Recent research has identified several of these legitimacy generating attributes in TPIs. Baldwin and Holzinger (2019) show that TPIs often contain inclusive decision-making processes and are often required to publicly justify decisions. Other work has argued that TPIs contain accountability mechanisms—such as social sanctions (Baldwin 2016) or forms of electoral accountability (Acemoglu et al. 2014)—that provide incentives for Traditional Leaders to govern (somewhat) effectively, thereby achieving at least minimum levels of performance-based legitimacy.¹¹

I therefore hypothesize the following:

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.

3 Context

3.1 Traditional Political Institutions in Sierra Leone

In Sierra Leone, the land beyond the peninsula that contains the capital city of Freetown is divided into 190 chiefdoms. The territory of each chiefdom—while also under the jurisdiction a state local government—is governed in large part by a chiefdom council and a group of hierarchically organized chiefs. The top political authority of each chiefdom is the paramount chief, elected for life by the chiefdom’s elite (chiefdom councilors), with candidates drawn from

⁸The trust gap is widening. Whereas, trust in elected officials has declined since 2008/2009 survey rounds, trust in Traditional Leaders has held steady.

⁹On political trust see Levi and Stoker (2000).

¹⁰As Hetherington and Rudolph (2008) point out, *perceptions* of government performance also matter.

¹¹Kate Baldwin’s theory of traditional leaders as “development-brokers” argues that leaders are held accountable by their social proximity to the populations they govern. For Baldwin (2016), unelected traditional leaders act in the community’s interest because they are socially embedded “stationary bandits” who must cultivate the development of the community to benefit from it. Chiefs are constrained as they must live among the people from whom they extract rents. Citizens comply with chief demands because citizens reason that the chief has community interests in mind. Acemoglu et al. (2014) find evidence for an electoral form of accountability in chieftaincy institutions in Sierra Leone, despite elected (Paramount) chiefs in this context not having to face re-election.

a restricted set of ruling families (**See Reed, Robinson**). Chiefdoms are further divided into sections that contain a number of villages. Sections and villages are headed by section chiefs and town chiefs, respectively.

Traditional Leaders have wide-ranging governance roles.

- Dispute resolution; 84% of respondents say that traditional leaders have “some” or “a lot” influence solving disputes;
- TPIs enforce local laws (byelaws), which are either established by government (e.g., public health bylaws during COVID-19) or created locally at the town, section, or chiefdom level. Punish violators of these laws in cash, kind, or labor; 78% say that traditional leaders have “some” or “a lot” of influence in governing local community
- it is common for chiefs to call for mandatory labor contributions (“communal labor”) to accomplish community related projects, though chiefs can also direct labor towards private projects such as personal farms.
- Land Allocation: 60% AB respondents influence in land allocation.
- They collect a widespread head tax, the Local Tax. The majority of this stays with the Chiefdom Council.
- They can levy and collect other taxes. (see vanessa)
- They often organize community contributions.

Sierra Leone is a good context to test hypotheses laid out in section 2. Scholars have made arguments about both the coercive capacity and legitimacy of TPIs.

- In Sierra Leone, influential accounts about the causes of the 11-year internal war pointed to the coercive and authoritarian chieftaincy system and its control over local resources (e.g., land, labor, women) ([Richards 1996](#)).
- In Sierra Leone, two decades and two epidemics since the war, the narrative surrounding TPIs in Sierra Leone have changed. In explaining compliance with disease control measures in Sierra Leone during the Ebola outbreak, scholars have pointed to the *legitimacy* of TPIs and the trust of the public in these institutions ([Wilkinson and Fairhead 2017](#); [Richards 2016](#)).

This section has two goals:

1. Provides context with description of history and evolution of TPIs in Sierra Leone
2. Motivates SL as a good place to test the above theories:
 - **Opportunity for collaboration:** The state is weak and TPIs are relevant.
 - AB data: SL TPIs near the top on dispute resolution and local governance
 - **Both legitimacy and coercion arguments are plausible:**
 - TPIs in SL are near average for trust and serving community interests (AB data).
 - Existing scholarship makes both legitimacy and coercion arguments about TPI authority

3.2 Property Tax Collection in Kono District

Prior to 2018, local government in Kono (called the district council) did not systematically collect taxes in rural villages, despite having a legal mandate to do so since the post-war reintroduction of local councils in 2004. In 2018, local government officials teamed up with the district’s fourteen paramount chiefs to collect taxes in rural areas, primarily through the introduction of a property tax. Flat tax rates are applied to properties based on the size and material of the building structure on those properties; In 2019, 95% of the building structures in the district had an assessed rate of \$1.50 or less. Tax collectors were assigned mutually exclusive areas of the district and were compensating by keeping a share of the revenue they collected. While initially collectors were recruited by the district council and approved by the chiefs, in subsequent years collectors were recruited by Chiefdom Councils and approved by district council.

Low levels of compliance with the property tax was a major factor driving the overall limited levels of collected revenue, which according to my estimates accounted for only about 2.3% of the total potential revenue.¹² I estimate that in the villages that in visited by tax collectors compliance rates were less than 10%.¹³

Interviews with tax collectors revealed one potential reason for low compliance levels: property owners were often unaware that TPIs were involved in the property tax. 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”.¹⁴ As tax collection got underway in 2019 it was clear that, while the District’s TPIs supported the property tax reform at a policy level, TPIs had not undertaken a systematic effort to spread awareness about their support for and involvement in the reform. This was not due to a lack of willingness, leaders of TPIs argued, but rather resource constraints—leaders of TPIs complained that the district council had not followed through on their promise to support the chiefs to hold chiefdom-level meetings to spread the awareness about the property tax.¹⁵

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

¹²See **appendix** for more details on this estimating total potential revenue. Note that in 2020, there was no attempt to collect the property tax, due to COVID-19.

¹³The other major factor limiting revenue collection was that tax collectors only visited about a quarter of the district’s total villages due to the “tax-farming” compensation model. This compensation package gave collectors no incentive to visit small, far away villages, even when doing so would have generated positive net revenue for the district council. However, in 2019 I helped the district council to design and implement a travel subsidy program for tax collectors that significantly increased the number of villages visited by collectors.

¹⁴Collector Komba Mani of Lei chiefdom

¹⁵My field notes from a July 2020 stakeholder meeting. The Paramount Chief of Goroma Kono Chiefdom, PC Konobundo, leveled this complaint against district officials.

4 Interventions

In an effort to increase awareness for the new property tax, I worked with the Kono District Council (KDC) and the district’s paramount chiefs to design a tax awareness video intended to provide property owners with information about the property tax (e.g. valuation and rates).¹⁶ This video was given to tax collectors during tax collection and was created to be used more broadly for awareness raising campaigns.

I embedded an experiment within one such door-to-door tax awareness campaign undertaken in conjunction with the KDC, the district’s paramount chiefs, and a local civil society organization in the summer of 2021. For the awareness campaign, a team hired through a local NGO met with property owners to share the tax awareness video, which contained one or more of the following components:

- **Component 1 - Government Information:** The district council chairman—the top elected official at the local government—provides information about the new property tax and demands that every property owner pay this tax.
- **Component 2 - TPI Collaboration:** A two-part segment from the paramount chief regarding collaboration. First, he introduces himself. 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.
- **Component 3 - TPI Legitimacy:** A two-part segment from the paramount chief regarding 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. Second, the paramount chief acknowledges that the people of the chiefdom will not be happy if the tax revenue is not used for development.
- **Component 4 - TPI Enforcement:** A two-part segment from the paramount chief regarding enforcement. First, the paramount chiefs says that he will convene a meeting to discuss how non-compliance will be punished. Second, the paramount chief says that he and other chiefdom authorities will not be happy with those who do not pay taxes.

Table 1 provides an example of video component from Gbane Chiefdom, translated from the Kono language video.

¹⁶In appendix D.1, 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 D.2.

Component	Text
Control	<ul style="list-style-type: none"> • Greetings my people! Good morning, good afternoon and good evening. This is your son Solomon Sahr Gbondo who is heading the Kono District City Council. • ... • 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.
T1 Collaboration	<ul style="list-style-type: none"> • My Gbane people, I greet you all. This is your Paramount Chief Aiah Bindi Faefankongor the 2nd. • Gbane Chiefdom and Kono District Council are working in unity to collect property taxes, which is a tax for houses, which we should pay.
T2 Legitimacy	<ul style="list-style-type: none"> • After we 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 to discuss and map out ways of how the collected money is going to be utilized. • 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.
T3 Coercion	<ul style="list-style-type: none"> • After the collection of these taxes, I will hold a meeting with the chiefs to brainstorm on what to do with those that have refused to pay taxes for their houses. • Let me emphasize that I and the rest of the chiefs will not be merciful on anyone who has refused to pay the tax.

Table 1: Video component text in Gbane Chiefdom

I created four versions of the tax awareness video, where each version is tailored to answer a different hypothesis and represents a different treatment condition. Property owners assigned to the control condition see only the **Government Information** video segment. For property owners assigned to the first treatment condition (treatment 1, collaboration), the government information segment is followed by the **TPI Collaboration** segment. I expect the treatment 1 video to increase property owners' perception that TPIs are collaborating with KDC on the property tax, relative to control. I can address my first hypothesis—collaboration between state leaders and TPIs increases tax compliance—by comparing tax compliance outcomes between respondents who watched the control video and respondents who watched the treatment 1 video. In a second treatment condition (treatment 2, legitimacy) the paramount

chief’s statement is expanded to include the **TPI Legitimacy** segment. That is, for property owners in treatment condition 2, the tax awareness video contains the government information segment, the TPI collaboration segment, and the TPI legitimacy segment. Treatment 2 primes respondents to recall that important decisions will have the input of additional actors beyond the paramount chief and his close inner circle and that revenue spending decisions must be justified in public—these are examples of the legitimacy mechanisms cited in the literature. In a third treatment condition (treatment 3, enforcement), the additional messaging from the Paramount Chief focuses on punishment for non-compliers (**TPI Enforcement**), rather than legitimacy. That is, the TPI enforcement segment follows the government information segment and the TPI collaboration segment. This primes respondents to think about coercive and punitive actions that will be taken against non-compliers. I can address my second and third hypotheses regarding the mechanisms of TPI authority by comparing tax compliance outcomes between respondents who watched treatment 1 and respondents who watched treatments 2 and 3. Table 2 summarizes the video components that make up each treatment conditions and the comparisons that allow us to test each hypothesis.

Treatment Condition	Video Component	Comparison	Hypothesis Tested
C (n=428)	1		
T1 (n=454)	1 + 2	T1 - C	H1
T2 (n=437)	1 + 2 + 3	T2 - T1	H2
T3 (n=433)	1 + 2 + 4	T3 - T1	H3

Table 2: Summary of treatment conditions

I randomly assigned property owners to treatment conditions through simple randomization.¹⁷ Table 3 presents balance statistics for pre-treatment and immutable covariates. Columns 1-4 display group means for each covariate and column 5 presents the control group standard deviation. Columns 6-8 present differences between each treatment group mean and the control group mean, standardized by the control group standard deviation. Columns 9-11 present *p*-values testing the null hypothesis that treatment indicators can predict a given outcome.

¹⁷Every 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 programed the treatment randomization into the tablet-based survey.

	Mean				SD	Standardized difference			p-values		
	C (1)	T1 (2)	T2 (3)	T3 (4)	C (5)	T1-C (6)	T2-C (7)	T3-C (8)	T1-C (9)	T2-C (10)	T3-C (11)
Demographics											
Attended any formal school	0.39	0.36	0.32	0.34	0.49	-0.06	-0.14	-0.10	0.34	0.04	0.12
Kono Speaking	0.81	0.81	0.81	0.82	0.39	-0.01	-0.02	0.02	0.85	0.77	0.80
Gender (female = 1)	0.28	0.24	0.31	0.30	0.45	-0.08	0.07	0.05	0.20	0.32	0.47
Married (yes = 1)	0.78	0.80	0.80	0.78	0.41	0.05	0.04	-0.01	0.49	0.51	0.87
Value to animal stock (100's USD)	2.25	2.36	2.40	2.41	4.62	0.02	0.03	0.04	0.73	0.63	0.63
Own multiple properties	0.23	0.18	0.18	0.19	0.42	-0.11	-0.10	-0.08	0.11	0.13	0.24
Village Positions											
Community position: Chief	0.10	0.11	0.12	0.09	0.30	0.05	0.07	-0.04	0.48	0.32	0.60
Community position: Youth leader	0.08	0.07	0.06	0.09	0.27	-0.04	-0.09	0.01	0.53	0.16	0.85
Community position: Womens' leader	0.04	0.03	0.04	0.02	0.18	-0.02	0.03	-0.08	0.73	0.64	0.20
Community position: Religious leader	0.03	0.04	0.03	0.03	0.18	0.01	-0.03	-0.01	0.84	0.65	0.98
Community position: Other	0.05	0.03	0.05	0.03	0.22	-0.11	-0.01	-0.10	0.08	0.82	0.10
Travel Behavior [0-10]											
Likelihood travel to Freetown (next year)	3.79	3.96	4.06	3.79	3.06	0.06	0.09	0.00	0.41	0.19	0.98
Likelihood travel to Koidu (next month)	7.44	7.14	7.21	7.25	2.96	-0.10	-0.08	-0.07	0.14	0.24	0.34
Village Characteristics											
Village literacy rate	0.39	0.37	0.39	0.39	0.21	-0.13	-0.03	0.00	0.06	0.64	0.94
Village radio ownership	0.59	0.55	0.57	0.55	0.24	-0.14	-0.07	-0.14	0.05	0.33	0.06
Village percent born in Chiefdom	0.83	0.83	0.83	0.83	0.19	0.01	-0.01	0.01	0.97	0.89	0.86

Note: Differences are standardized related to the standard deviation of the control group. P-values are for a given outcome regressed on treatment indicators. Community position "Other" comprises societal heads, tribal chiefs (i.e., leaders of non-Kono ethnic groups), and chiefdom councilors. Pre-registered control variables include: education, all village position dummies, travel behavior, and village-level variables.

Table 3: Balance Table

5 Data Collection

5.1 Survey Data

As the research design relies on the development of chiefdom-specific tax awareness videos, 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 10 of those 14 chiefdoms in Kono district. 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.¹⁸ In three chiefdoms, we shot videos not with the paramount chief, but with his representative: I excluded these chiefdoms.¹⁹ I excluded one chiefdom

¹⁸The paramount chief of Sandor was traveling; 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.

¹⁹In 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 Fiamma 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.

(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.²⁰ This left five chiefdoms included: Soa, Lei, Gbane, Nimikoro, and Kamara.

I used geographic cluster sampling to select 123 villages for the study from a set of 434 eligible villages in five chiefdoms. Figure 1 visualizes this sampling: blue triangles represent villages sampled for surveying.²¹ I used geographic cluster sampling to minimize transportation costs during data collection; Road infrastructure in Kono district is poor, which makes traveling between villages for data collection a time- and resource-intensive undertaking. More details on sampling can be found in appendix B. 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.²² 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 (which I call the donation game).²³

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 1 represent villages visited for qualitative interviews. In two of the villages we visited for qualitative interviews, we had already conducted surveys (green diamonds). To select villages for interviews, I first randomly selected sub-chiefdom administrative units called section sections in each chiefdom. Within each sampled section, I then selected section headquarter town and one other large town for interviews.

Before conducting interviews, I led a five-day training workshop (including one day of pilot-ing). Interviewers were trained to follow an interview guide and each interview was structured to cover several topics:

- *Local tax*: An existing and widespread head tax collected by chiefdom authorities. Questions focused on (i) perceived motivations for paying this tax and (ii) monitoring and punishment mechanisms for non-compliance.
- *Local laws*: Interviewer asked respondents to describe common local laws, then focused on the process for creating local laws and respondents' judgment regarding these laws.

²⁰Toli contains less than 2% 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.

²¹Kono district contains 14 chiefdoms and approximately 1,300 villages. 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.

²²We were 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.

²³For the control group, the mean amount kept by the respondent was 1,670 SLL (aprox. US\$0.15).

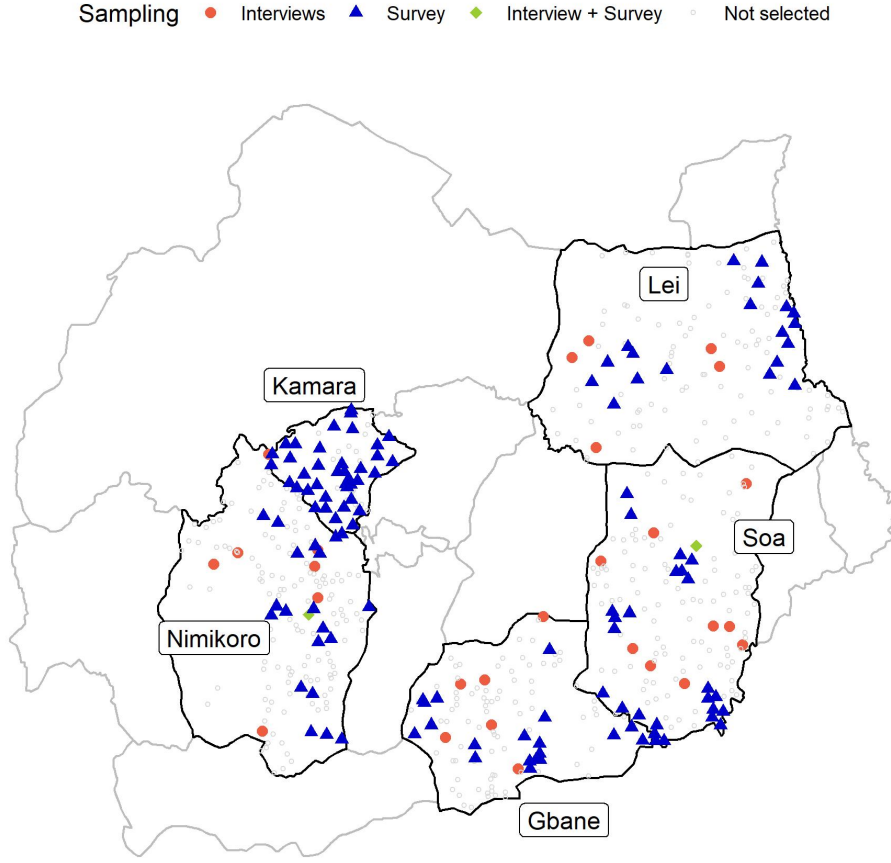


Figure 1: Sampling Map

- *Perceptions of chief performance:* Respondents were asked about their judgment of the Paramount Chief and sub-chiefs. Specifically, interviewers asked respondents to describe things that chiefs did well, things that chiefs could improve and their overall approval of the performance of chiefs. Interviews 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.
- *Communal labor:* It is common for chiefs call for labor to undertake various activities. Interviewers asked respondents to describe recent projects completed with communal labor and systems of monitoring and punishing non-compliance. Respondents were also asked about their attitudes towards communal labor and who they thought benefited from projects undertaken with communal labor.

Interview 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. After listening to over 150 (Krio language) interviews, either in part of or their entirety, I developed a coding scheme to capture respondent’s (i) perceptions of enforcement mechanisms for Local Tax and communal Labor, (ii) participation in byelaw creation and attitudes to-

wards byelaws, (iii) judgments of leaders’ performance, and (iv) descriptions of and attitudes towards projects undertaken with communal labor Communal Labor. I then trained a team of three research assistant to code audio recordings of the interviews using this coding scheme.

6 Results

I use ordinary least squares (OLS) to estimate the treatment effect of each video on my outcomes of interest. I use the centered covariate-treatment interaction specification proposed by [Lin \(2013\)](#) and a set of pre-specified control variables.

I estimate:

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

where Y_i is the outcome of property owner i and T1, T2, and T3 are dummy variables for each treatment condition. \mathbf{X}_i is a set of control variables. \mathbf{X}_i includes centered covariates and the interaction of each centered covariate with each treatment condition. Pre-specified control variables are as follows: (1) educational level (a dummy indicating whether the respondent attended any formal schooling); (2) a set of variables for community positions of social or political importance; (3) a respondent’s expected likelihood of traveling to Freetown (the country capital); (4) a respondent’s expected likelihood of traveling to Koidu (the district capital); (5) a respondent’s assessment of the likelihood that the president would visit the respondent’s village on the following day; (6) the village-level literacy rate; (7) the percentage of households in the village that own a radio; (8) and percentage of village residents born in the chiefdom.²⁴ I also include chiefdom and enumerator fixed effects.

6.1 Does state collaboration with TPIs increase compliance?

Recall that T1 attempts to manipulate respondents’ perceptions about the collaboration between state actors and TPIs. Panel A of [4](#) 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 organizations. Each respondent was then given 10 beans and asked to allocate the beans across the four squares, placing more beans on actors they think are more involved in and responsible for the property tax.

Rows 1 and 2 capture property owners’ perceptions of the involvement of TPIs and local government, respectively. Column 1 displays pre-treatment (i.e., control group) perceptions and shows that respondents view local government as driving the new property tax rather

²⁴Community position dummies include: Chief or deputy chief (town or section), women’s leader (town or section), youth leader (town or section), religious leader, and other, which comprises societal heads, tribal chiefs (i.e., leaders of non-Kono ethnic groups), and chiefdom councilors. I selected prognostic variables for covariate adjustment using a LASSO model that used a set of control variables to predict my outcome of interest. Details on this procedure can be found in section 8 of the PAP.

than TPIs. Column 2 reports T1 treatment effects of T1 on perceived involvement. I find that the collaboration treatment (T1) increases the perceived involvement of chiefs by .27 standard deviation (t-statistic = 4.24), equivalent to .56 beans, or 24% of the baseline mean. This increase in perceived involvement of chiefs does not lead to a decrease in perceived involvement of the local government; rather there is a corresponding perceived decrease in involvement from central government and NGOs.²⁵ Row 3 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 more are 18 percentage points more likely than control respondents to agree that the collaboration between chiefs and state was discussed in the video.

I now turn to the effect of Collaboration Treatment (T1) on compliance outcomes. Panel B reports the effect of the Collaboration Treatment (T1) on the pre-registered Compliance family index and the sub-indicators that make up the index. Column (1) reports the control group mean for each variables, with standard deviations in parentheses. Column (2) reports the effect of the Treatment 1, relative to the control condition, with standard errors in parentheses. Treatment effects on sub-indicators are reported in standard deviations units.²⁶

My primary (pre-specified) outcome is a summary index of responses to two survey questions that attempt to elicit willingness to pay and a behavioral game that attempts to capture voluntary compliance. These indicators are measured in a survey administered to respondents directly following the tax awareness video.²⁷ A first survey question directly asks respondents to state the likelihood they would pay the full tax rate if a tax collector came to their house the next day. A second survey question asked respondents the proportion of other property owners in the town they think will pay the new property tax, thereby attempting to elicit willingness to pay indirectly. For these two survey questions, as well as many other questions in our survey, respondents are asked to gauge their expectations or perceptions on a 10-point scale. To make this scale more concrete to survey respondents, all enumerators were given 10 beans and a plastic plate, which served as a visual aid regarding the 10-point scale. Respondents were asked to allocate some, none, or all of the 10 beans to the plastic plate to represent their perceptions and expectations. Enumerators were 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 and measurement validity is discuss in greater detail in Appendix A.

²⁵Note that the measurement strategy forces respondents to allocate a finite number of beans. Therefore, an increase for one actor must bring a decrease for one or more other actors. Full table in **appendix C** alongside a broader set of manipulation checks.

²⁶Note that, because indices are constructed as the mean average of the standardized measures comprising the index, treatment effects on the Compliance Index are interpreted as the average standard deviation change of the sub-indicators.

²⁷The three outcome measures were placed at the front of the survey, preceded only by two treatment comprehension questions.

Outcome	Control mean (C)	Estimate (T1-C)	N
<i>Panel A: Manipulation / Attention Checks</i>			
Perceived Involvement in Tax: TPIs [0-10]	2.350 (2.052)	0.273*** (0.064)	1,752
Perceived Involvement in Tax: Local govt [0-10]	3.956 (2.720)	-0.019 (0.060)	1,752
Attention check: Collaboration discussed in video [%]	0.682 (0.466)	0.170*** (0.025)	1,751
<i>Panel B: Compliance Outcomes</i>			
Compliance Index [0-1]	0.000 (0.668)	0.068* (0.040)	1,752
Self-reported propensity to pay tax [0-10]	6.729 (3.000)	0.090 (0.058)	1,751
Coins given to KDC's development fund [0-5]	1.664 (1.438)	0.001 (0.056)	1,752
Perceived neighbors' propensity to pay tax [0-10]	5.965 (2.322)	0.113 (0.070)	1,657
Tax Morale (Secondary outcome) [0-10]	7.357 (2.817)	0.155** (0.063)	1,751

Note: This table reports the effect of the collaboration treatment (T1) on manipulation check outcomes and my main outcome of interest: the compliance index (in bold) and its sub-components. Row 1 reports the relevant attention check question administered at the end of the survey and describes the percent of respondents who agree with the statement ‘The Chiefdom Council is working with Kono District Council on this property tax.’ Row 2 reports my main manipulation check: respondents’ perceptions that TPIs are involvened in the property tax. Row 3 reports a similar outcome, with respect to the local government. Rows 4-8 report compliance outcomes. The compliance index is computed as the mean average of the standardized sub-indicators. The first column reports the control group mean for each indicator, with the standard deviation in parentheses. The second column presents treatment effects from my pre-registered model, with the estimated standard error in parentheses. Note that the Tax Morale measure is not included in the Compliance Index (per PAP). * $p < 0.10$; ** $p < 0.05$ *** $p < 0.01$

Table 4: Effect of Collaboration (T1) on compliance

After answering the above described tax compliance survey questions, respondents played a behavioral game (“dictator game”), where they were asked to allocate a small sum of money between themselves and the local government’s property tax 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 respondent five 500 Leone coins (each valued about \$.10) and told the respondent they should allocate these coins between themselves and the house fund. It was made clear that the respondent could keep any coins they allocated to themselves and that they could split the coins anyway they

like between themselves and the house fund. Enumerators then recorded the number of coins the respondent allocated to the house fund.²⁸ 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.

To construct the summary index of the three compliance measures, I follow [Kling et al. \(2007\)](#) and standardize each sub-indicator relative to the control group and combine them in an equally weighted index that averages across standardized sub-indicators. I impute missing sub-indicators using the group mean.

The Collaboration Treatment (T1) increases the Tax Compliance Index by .068 standard deviations, relative to control; this effect is statistically significant at a 90% confidence level (t-statistic = 1.7). Looking at the effect of the T1 on the sub-indicators, we can see that this effect is driven by self-reported propensity to pay and perceptions that neighbors' will pay. To get 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 .09 standard deviations, corresponding to .27 beans on the 10-bean scale. Given that each bean represents 10 percentage points, we can interpret this effect as a 3 percentage point increase of self-reported likelihood to pay property tax.

I pre-specified a lone secondary outcome: a survey-based measure 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 penalized for not paying their property tax and were then asked if they thought it was (morally) right to pay their tax. Table 4 demonstrates a large and statistically significant impact of the tax morale measure.²⁹

I interpret these findings as evidence that individuals are more willing to comply with government policy—in my context, comply with a newly introduced property tax—when they know that government officials are collaborating with leaders of TPIs to implement that policy.

6.2 Does Legitimacy drive TPI authority?

In section 6.1 I found evidence that state officials can increase citizens' compliance with state demands by collaborating with TPIs. This section examines two arguments for why TPIs are able to generate citizen compliance: *legitimacy* and *coercion*.

²⁸As stated, coins allocated to the house fund were handed over to the KDC to be deposited in their property tax revenue bank account.

²⁹Survey-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 behavior related to paying taxes, I decided to not include this outcome in the Compliance Index. Doing so would increase the t-statistic on the Compliance Index to 2.45.

Outcome	Mean	Legitimacy		Coercion		N
	(T1)	(T2-T1)	(T2-C)	(T3-T1)	(T3-C)	
Compliance Index [0-1]	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 [0-10]	6.874 (2.920)	0.034 (0.061)	0.124 (0.060)	0.133 (0.058)	0.223 (0.058)	1,751
Coins given to KDC's development fund [0-5]	1.703 (1.446)	0.076 (0.056)	0.077 (0.058)	0.019 (0.057)	0.021 (0.058)	1,752
Perceived neighbors' propensity to pay tax [0-10]	6.226 (2.381)	0.058 (0.071)	0.170 (0.071)	0.038 (0.070)	0.150 (0.069)	1,657

Note: This table reports the effect of the Legitimacy Treatment (T2) and the Coercion Treatment (T3) on the Compliance Index (in bold) and its sub-components. The Compliance Index is computed as the mean average of the standardized sub-indicators. The first column reports the control group mean for each indicator, with the standard deviation in parentheses. The second and third columns present treatment effects for T2 and T3 relative to T1, respectively. Estimates are made using the pre-registered model, with the estimated standard error in parentheses. * $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$

Table 5: What mechanisms drive TPI authority?

The second and third column of table 5 reports the effect of the **Legitimacy** Treatment (T2) on the Compliance Index. In column 2 I find that the **Legitimacy** Treatment (T2) increases the Compliance Index over and above the effect of the Collaboration Treatment (T1), but that this effect is not statistically significant (t-statistic = 1.33). 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 85% the size of the T1 effect. Further, the positive T2 point estimate is driven by increased contributions to the development fund, in accordance with theoretical expectations that accountability should lead to consent-based compliance. Column 3 reports the effect of the legitimacy treatment on relative to control, which is statistically significant at a 1% level.

Why might the legitimacy treatment increase compliance? I measured several channels through which the legitimacy treatment might increase compliance. The first two rows in Panel A of table 6 capture the extent to which respondents expect to benefit from taxation. The third and fourth row in panel A measure perceived spending efficiency and spending transparency, respectively. My (pre-registered) expectation was that the collaboration treatment (T1) would lead to an increase all four of these outcomes and that the legitimacy treatment would provide an additional boost over and above the impact of T1. Given that the coercion treatment (T3) contains the collaboration prime, and I made no prediction about the impact of T3 relative to T1, the predicted joint effect of these three treatments is positive; therefore, I combine these three treatment arms to increase precision. Column 2 presents these joint treatment effect estimates and columns 3-5 break out this joint effect by individual treatment condition. We see some suggestive evidence that treatments increased respondent's perception that they would benefit from property tax—the impact of the pooled treatment on my two expected benefits outcomes is positive, but statistically, insignificant. Further, there is little

indication that T2 and T3 have an effect greater than T1 for these expected benefit outcomes. We see little evidence that respondents believe a greater proportion of revenue will go towards development when TPIs are involved or that money will be spend more transparently.

Outcome	Mean (1)	Pooled (2)	T1-C (3)	T2-C (4)	T3-C (5)	N
Panel A: Legitimacy Channels						
Other villages will benefit from tax [0-10]	6.710 (2.838)	0.071 (0.055)	0.112 (0.068)	0.023 (0.068)	0.092 (0.069)	1,646
Own village will benefit from tax [0-10]	7.114 (2.853)	0.051 (0.052)	0.055 (0.065)	0.088 (0.061)	0.040 (0.066)	1,722
Proportion of revenue towards development [0-10]	6.180 (2.614)	-0.014 (0.053)	-0.037 (0.066)	0.021 (0.066)	0.007 (0.065)	1,709
Ease of discovering how revenue was spent [0-10]	4.460 (3.094)	0.028 (0.051)	-0.058 (0.062)	0.103 (0.064)	0.062 (0.066)	1,742
Panel B: Coercion Channels						
Respondent fined by chiefs if non-compliant [0-10]	7.506 (2.660)	0.083* (0.050)	0.071 (0.064)	0.071 (0.064)	0.079 (0.062)	1,748
Proportion villages where chiefs fine the non-compliant [0-10]	6.393 (3.474)	0.058 (0.046)	0.065 (0.055)	0.079 (0.057)	0.026 (0.057)	1,621
Chief will favor compliant in land allocation [0-10]	7.628 (2.460)	-0.054 (0.042)	-0.082 (0.052)	-0.042 (0.055)	-0.031 (0.054)	1,744
Chief will favor compliant in dispute resolution [0-10]	6.526 (2.793)	-0.058 (0.044)	-0.077 (0.053)	-0.039 (0.055)	-0.034 (0.056)	1,742
+Respondent fined by Local govt if non-compliant [0-10]	7.154 (2.711)	0.083* (0.048)	0.057 (0.062)	0.103* (0.061)	0.086 (0.060)	1,737
<i>Note:</i> + Outcome not pre-registered * $p < 0.10$; ** $p < 0.05$ *** $p < 0.01$						

Table 6: Channels of legitimacy and coercion

In the context of rural Sierra Leone, how do TPIs generate legitimacy? In semi-structured interviews I find that respondents consistently report high levels of participation in local policy making and that mandatory communal labor is directed towards projects that benefit the public, rather than a narrow group of elites. These findings are summarized in table 7.

TPIs enforce local laws (byelaws), which are either established by government (e.g., public health bylaws during COVID-19) or created locally at the town, section, or chiefdom level.³⁰ Interviews provide several pieces of evidence that there are high levels of citizen engagement

³⁰Nearly all respondents (97%) discussed at least one byelaw during their interview. The most commonly mentioned byelaws are those that restrict stealing (mentioned by 67% of respondents), abusive language (50%), fighting (39%) and adultery (20%) and laws that require labor contributions (26%). In addition, respondents mentioned bylaws aimed at regulating a wide range of activities including: the timing of crop harvest, home births, and romantic encounters with underage girls. Table 15 in the Appendix provides the full list byelaws mentioned in our interviews. Where town-level byelaws only apply to a given town or village, section and chiefdom byelaws apply to all villages within a section or chiefdom, respectively.

and participation in formulating byelaws. First, respondents overwhelmingly report byelaws are developed during open meetings, rather than behind closed doors. The first outcome in Panel A reports the percent of respondents who said that meetings are called when byelaws are created. Interviewers did not ask about meetings directly, but prompted respondents by asking how byelaws were created, asking about town, section, and chiefdom level byelaws separately. Over 90% percent of respondents say a meeting is called to develop byelaws.³¹ Second, when respondents can not attend meetings directly, because they are being held outside the village at section or chiefdom headquarter towns, they report being represented at these meetings by their village or section chiefs. The second outcome in Panel A reports the percent of respondents who say a representative from their town (section) would be invited to a section (chiefdom) meeting to create byelaws, conditional on the respondent saying that a meeting would be called. Over 80% of respondents say a representative from their village would be invited to attend these meetings; few respondents explicitly state a representative from their town (section) would not be invited to attend.³² Third, respondents characterize policy-making meetings as participatory. The third outcome in Panel A reports the percent of respondents who describe active participation at byelaw meetings, conditional on the respondent mentioning a meeting. At the town level, 82% of respondents who said a meeting was called describe meetings as forum for discussion between town authorities and town people compared to only 7% who report that these meetings are only a space for town authorities to *inform* the towns people about a byelaw.³³ For example, a respondent from Louma reports regarding town meetings, “[Town authorities] invite all of us. Whether you have a [leadership] position in the town or not, all of us do meet and are present during the process of making the law. It is us all that sit and make it”.³⁴ While the majority of respondents (62%) did not address participation at section byelaw meetings, all who did (38%) described active participation—not a single respondent stated that these meetings are not a place for active participation. For chiefdom meetings, 71% of respondents say that these meetings contain active participation for attendees and only 4% of respondents report that these meetings are not open for active participation.

³¹ Respondents coded as “agree” explicitly mentioning that a meeting was called. Respondents coded as “disagree” explicitly mention or implied that byelaws are created without a meeting being called.

³² Interviewers prompted, “When section (chiefdom) byelaws are created, is anyone from your village usually involved?” Respondents are coded as “agree” when they respond to this question in the affirmative, and as ‘disagree’ for this outcome when they explicitly state a representative from their town (section) would not be invited to attend.

³³ Research assistants were asked to code interviews for evidence of active participation (“agree”), evidence of lack of participation (“disagree”), or no evidence for either (“unclear / unmentioned”).

³⁴ Louma Morsay 1

	% Agree	% Disagree	% Unclear / Unmentioned
Meetings called to discuss byelaws			
Town	97.2	0.0	2.8
Section	91.5	0.0	8.5
Chiefdom	92.1	0.0	7.9
Representatives invited to byelaw meetings			
Section	84.6	1.5	13.8
Chiefdom	82.9	3.9	13.2
Byelaw meeting attendees actively participate			
Town	82.6	10.1	7.2
Section	37.7	0.0	62.3
Chiefdom	71.3	3.9	24.8

Note: This table describes respondents’ participation in creating local byelaws. The first outcome reports the percent of respondents who said that meetings are called when byelaws are created. Interviewers asked respondents how byelaws are created, without mentioning meetings. Respondents coded as “agree” (“disagree”) explicitly mentioning that a meeting was (not) called. The second outcome reports the percent of respondents who say a representative for from their town (section) would be invited to a section (chiefdom) meeting to create byelaws. Respondents are coded as “agree” when they respond to this question in the affirmative, and as ‘disagree’ when they explicitly state a representative from their town (section) would not be invited to attend. The third outcome reports the percent of respondents who describe active participation at byelaw meetings. Research assistants were asked to code interviews for evidence of active participation (“agree”), evidence of lack of participation (“disagree”), or no evidence for either (“unclear / unmentioned”). Throughout, respondents are coded as “unclear / unmentioned” 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.

Table 7: Legitimacy in Byelaws creation

6.3 Does Coercion drive TPI authority?

I now turn to the coercion hypothesis, again starting with experimental evidence. The third column in table 5 reports results from the Coercion Treatment (T3). I find that the coercion treatment increases the Compliance Index above and beyond the effect of the collaboration treatment (T1). The point estimate on this increase is 0.066 standard deviations, almost exactly the size of the T1 effect. This result is significant at a 10% level (t-statistic = 1.69). This positive effect on the Compliance Index is primarily driven by an increase in self-reported propensity to tax. In contrast to the Legitimacy Treatment, the Coercion Treatment has no impact on respondent’s contributions to the development fund, my behavioral measure of voluntary compliance.

Why might the coercion treatment increase compliance. I collected two outcomes measuring respondents’ perceptions of punishment for non-compliance through legal channels: (i) the respondent’s perception that they personally would be fined by chiefdom authorities for non-

compliance; (ii) the respondent’s perception that other people in their village would be fined by chiefdom authorities for non-compliance. If respondents’ expect non-compliance with the new property tax to be punished through legal channels, we should see positive treatment effects on these measures. I also collected two outcomes measuring respondents’ perceptions of punishment for non-compliance through extralegal channels: (iii) the respondent’s perceptions chiefs would bias future decisions of land allocation against non-compliers and (iv) the respondent’s perceptions chiefs would bias future dispute resolution outcomes against non-compliers. If respondents’ expect non-compliance with the new property tax to be punished through *extralegal* channels, we should see positive treatment effects on these measures.

Panel B of table 6 report baseline levels and treatment effects for these outcomes. Rows 1 and 2 report fine-related punishment outcomes and rows 3 and 4 report the bias-related punishment outcomes. As with the outcomes in panel A, to increase precision, the “treatment” in these estimates is pooled across treatment conditions, as all are expected to manipulate perceptions of punishment relative to control. Treatment effects for perceptions of legal punishment measures are positive and the pooled treatment effect respondents’ perception that they personally will be fined for non-compliance statistically insignificant. Interestingly, I also find that the pooled treatment increases respondents’ perceptions that they will be fined by local government; all three treatment conditions have positive point estimates. It could that collaboration with TPIs allows the state to more easily identify, and therefore punish, non-compliers. However, this effect should be interpreted as suggestive, as I did not pre-register this outcome.

Treatment effects for extralegal punishment measures are negative, through statistically insignificant. This provides some suggestive evidence TPIs deploy coercion through the expected legal channels. I find no evidence that respondents are concerned that non-compliance will be punished through extralegal channels. I see no evidence that T2 and T3 have an effect beyond T1.

What does coercive capacity look like in the context of rural Sierra Leone? Interviews demonstrate that TPIs have enforcement mechanisms in place to detect and punish non-compliance with (1) a widespread existing tax (“Local Tax”) and (2) mandatory labor contributions (“Communal Labor”). Table 8 reports the percent of respondents who, when prompted, describe punishment and monitoring mechanisms for Local Tax and Communal Labor.

Panel A summarizes perceptions of monitoring and punishment mechanisms for Local Tax. The first outcome in reports that 80% of respondents described monitoring mechanisms at either the town or chiefdom level, when asked if village or chiefdom authorities do anything to check if people had paid Local Tax.³⁵ Roadblocks (or “check points”)—erected either inside the town or at key junctions on the road network—were the most commonly reported monitoring strategy with 28% of respondents reporting roadblocks.³⁶ Alternatively, interviewees

³⁵Interviews 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?”. 55% of respondents described village-level monitoring mechanisms and 63% of respondents described monitoring mechanisms outside the village.

³⁶One respondent explained that chiefdom authorities “erect check points in collaboration with the chiefdom police, especially when the compliance rate is low” (**Interview: NN1**). A Town Chief noted, “we erect checkpoints on the roads” to monitor compliance (**Interview: ML1**).

reported that town level authorities may keep records of those who have paid (mentioned by 16% of respondents³⁷) or conduct house-to-house checks (23%; “when you do not pay tax, we go house-to-house to check for tax payers”³⁸).³⁹ The second outcome in Panel A reports that 86% of respondents report that those found to have not paid the local tax will face consequences, either by authorities at the town or chiefdom level.⁴⁰ The majority of respondents (74%) report that non-compliers will be issued a fine by authorities (“either you buy the tax, or you pay a fine”⁴¹); a minority of respondents mention that non-compliers will be held in jail (7%; “they will detain you for one hour or two hours”⁴²) or will face public shaming (3%, “they arrest [non-compliers] and humiliate them”⁴³).⁴⁴

Panel B summarizes perceptions of monitoring and punishment mechanisms for Communal Labor. In Sierra Leone it is common for chiefs to call for mandatory labor contributions (“communal labor”) to accomplish community related projects. The first outcome in Panel B reports that 82% of respondents described monitoring mechanisms at either the town or chiefdom level, when asked if village or chiefdom authorities would find out if someone who was supposed to participate in Community Labor does not.⁴⁵ Respondents report that the Youth Leader is often in charge of identifying those who fail to turn out, especially for town level communal labor. Respondents also note that authorities know people in their communities and therefore know who fail to show up; another common strategy is to keep lists of those who do show up to communal labor (see table 19 in the appendix.) The second outcome in Panel B reports that 85% of respondents report that those found to missed Communal Labor without a legitimate excuse will face punishment, either by authorities at the town or chiefdom level.⁴⁶ **Note:** Something is off with this statistic.

³⁷Interview: SR1

³⁸Interview ML1

³⁹Table 17 in the appendix reports commonly discussed monitoring mechanisms for Local tax. **Note:** I still need to code a lot of strategies currently in the “other” category.

⁴⁰Interviewers asked respondents “When village (section/chiefdom) leaders found out that someone had not paid, did they anything about it, or did they not do anything?”

⁴¹Interview: T1 1

⁴²(Morsay Louma A)

⁴³Interview: RFM1

⁴⁴Table 18 in the appendix breaks down the percent of respondents that make reference to a give form of punishment.

⁴⁵Interviewers asked respondents, “What happens if someone who was supposed to participate in Community Labor does not? Would the Section (chiefdom) Leaders find out?”

⁴⁶Respondents mention sickness or unavoidable travel as legitimate excuses for missing communal labor

	% Agree	% Disagree	% No response
<i>Panel A: Local Tax</i>			
Respondents mention monitoring mechanisms			
Town	54.9	43.8	1.4
Chiefdom	63.1	34.0	2.8
Either	80.0	20.0	0.0
Respondents mention punishment mechanisms			
Town	80.1	8.5	11.3
Chiefdom	61.9	6.5	31.7
Either	87.5	5.6	6.9
<i>Panel B: Communal Labor</i>			
Respondents mention monitoring mechanisms			
Town	76.7	0.0	23.3
Chiefdom	75.6	1.6	22.8
Either	82.0	0.0	18.0
Respondents mention punishment mechanisms			
Town	97.1	0.0	2.9
Chiefdom	92.1	0.8	7.1
Either	85.3	0.0	14.7

Note: Panel A describes respondents' perceptions of TPI mechanisms for monitoring and punishing non-compliance with the Local Tax. Panel B describes respondents' perceptions of TPI mechanisms for monitoring and punishing non-compliance with Communal Labor. We asked about communal labor called at the town, section, and chiefdom level. The row chiefdom, pools responses about section and chiefdom level labor.

Table 8: Coercive mechanisms for Local Tax and Communal Labor

7 Is TPI Coercion Despotic or Legitimate?

In section 6, I found evidence that citizens' compliance with the directives of TPIs is driven by their coercive capacity, in line with accounts in the literature that depict TPIs as decentralized despots. However, in keeping with accounts that describe TPIs as legitimate institutions, I also found evidence that legitimacy drives citizens' compliance with TPIs. How can we square these two pieces of evidence? In this section I argue that TPIs wield *legitimate coercion*, which enables them effectively enforce laws that have broad public support and seen as socially beneficial.

While the literature on TPIs tends to emphasize the mechanisms of legitimacy and coercion

in isolation, there is good theoretical motivation for believing these mechanisms work in tandem. Social contract theorists have long pointed out that ruling by coercion alone is often unrealistic. Says Rousseau in his *The Social Contract*, “The strongest is never strong enough to be always the master unless he transforms strength into right and obedience into duty”. However, as Margaret Levi points out, neither can political authorities effectively govern by legitimacy alone, as individuals’ compliance is still conditional on the compliance of others (Levi 1997). That is, even in situations where citizens agree that they would all be better off complying with a political authority—for example, in trading some tax dollars for basic services—citizens still face a free rider problem: because no one wants to be stuck with the bill for a public good the rational choice in the absence of effective enforcement is to defect into non-compliance.⁴⁷ In this situation the state’s coercive capacity is a tool to solve this free-rider problem. Says Levi (1988), “the importance of deterrence [for *quasi-voluntary* compliance] is that it persuades taxpayers that others are compelled to pay their share” (pg. 54).

This model of legitimate coercion yields different observable implications than a model of despotic coercion.

First, the two model predict different attitudes that citizens should hold about law enforcement. If TPIs wield legitimate coercion then citizens should support and approve of TPI’s law enforcement efforts. Alternatively, if TPIs are despotic—and laws are enacted or enforced in a way that serve elite interests—then citizens should disprove of the way TPIs enforce laws. Second, the two model generate divergent predictions about who benefits from mandatory public labor contributions. As we saw in section 6, interview respondents belief that people who fail to make mandatory public labor contributions will be detected and punished. If TPIs are wielding legitimate coercion to enforce socially beneficial rules, the leaders of TPIs should be directing public labor contributions towards projects that benefit the public (i.e., public goods). By contrast, if TPIs are despotic, we should see that public labor contributions are being diverted towards private ends, such as personal projects of chiefs’ inner circle.

The top row of Panel A in table 9 presents citizens’ perception of law enforcement using interview data. Interviewers asked respondents to name something that they thought section / chiefdom leaders were doing well.⁴⁸ Looking at the first column “agree”, we see that 28% of respondents, unprompted, named enforcing or implementing byelaws as something section / chiefdom level authorities do well. Interviewers also asked respondents to name something that they thought TPIs could improve on.⁴⁹ Turning the the section column “disagree, we see that only 3% of respondents said that byelaws were implemented unfairly or incorrectly enforced and that enforcing bylaws was something these authorities should improve upon. Note that it is not that case that respondents avoid making critical comments about chiefs. As a point of comparison, panel A also presents the percent of respondents who discuss development when asked what chiefs are either doing well and need to improve. In contrast to perceptions of law enforcement, 61% of respondents would like to see their chiefs doing more for development. In summary, during interviews respondents are roughly nine times

⁴⁷As Levi put it, “No one prefers to be a ‘sucker’” (Levi 1988, pg. 53)

⁴⁸The prompt was: “Please tell me something the leaders of this section (chiefdom) are doing well?”

⁴⁹The prompt was: “Please tell me something the leaders of this section (chiefdom) could be doing better (that is, could improve)?”

more likely to cite the enforcement of laws as something chiefs do well than something they need to improve. This approval of TPIs law enforcement efforts is inline with a model of legitimate coercion and evidence against despotic coercion.

Moreover, many respondents link law enforcement to social stability. Says one respondent, “If laws are not made, the town would not [be in] control. Everybody will just be doing things the way they want”.⁵⁰ Other respondents noted “it is the law that binds us together”⁵¹, bring “peace and protection”⁵², “made the town function well”⁵³ and were put in place so that communities “could have peace”.⁵⁴

Panel B describes respondents’ perceptions regarding the benefits of mandatory Communal Labor. Interviewers prompted respondents with the following question: “Is the Communal Labor called for by the Town (Section/Chieftdom) 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?” At town, section, and chieftdom level respondents describe communal labor as being directed towards projects that benefit the public.⁵⁵ This perceptions squares with the types of projects respondents describe as being the most commonly undertaken with communal labor: road brushing and road maintenance (see appendix⁵⁶). Indeed, many respondents pointed to the maintenance of roads when asked what they their leaders were doing best. One respondent lauded their section chief for “greatly improving our roads by organizing communal labor”⁵⁷ and other responded praised section leaders for “the maintenance of roads to connect our communities”⁵⁸ and another for the area having “a good road network”⁵⁹. Respondents stated that chieftdom authorities, “make sure that our roads are good for safe movement”⁶⁰ and liked that they how chieftdom authorities “mobilized the youth for road maintenance”.⁶¹

⁵⁰Morsay Kenema 1

⁵¹Morsay Kenema 5

⁵²Nancy Sawolla 5

⁵³Sossah Sungar 3

⁵⁴Jalloh Kutima 3

⁵⁵Research assistants could code responses as evidence for (i) “broad benefits” (“agree”), (ii) narrow benefits, or (iii) in the middle; in this table I combine the latter two categories under “disagree”.

⁵⁶**Note:** Not included in this version.

⁵⁷Lewis Seidu 4

⁵⁸Jalloh Kutima 3

⁵⁹Morsay Njala 6

⁶⁰Nancy Gbamandu 3

⁶¹Regina Yikeyor 4

	% Agree	% Disagree	% Unmentioned
<i>Panel A: Traditional Leader performance</i>			
TPIs enforce laws well			
Section	16.9	1.90	
Chiefdom	11.4	0.91	
Either	28.3	3.23	
TPIs are doing well to bring development			
Section	29.7	44.1	
Chiefdom	36.6	37.2	
Either	50.3	61.4	
<i>Panel B: Communal Labor</i>			
Communal Labor towards broad public benefits			
Town	82.4	7.4	10.3
Section	73.5	11.1	15.4
Chiefdom	67.0	15.9	17.0

Table 9: Legitimate Coercion

8 Are TPIs made equal? Variation in effect of collaboration

In section 6 I found that the state can increase compliance with state demand by collaborating with TPIs. Are all TPIs equally effective at generating citizen compliance with state policy? Figure 2 presents estimated treatment effects conditional on chiefdom. The bolded black points display the joint treatment effect, where treatment conditions are combined into a single indicator. Recall that treatments 1-3 all feature the relevant paramount chief and contain messaging about collaboration; T2 and T3 contain additional messaging about legitimacy and coercion. While “treatment” in this case combines impacts of collaboration, coercive appeals, and legitimacy appeals this seems appropriate given that our objective is to understand variation in the authority of chiefs across chiefdom, and not necessarily unbundle what’s driving that authority. I find evidence that the size of the effect of collaboration varies across chiefdoms. Focusing on the pooled estimates, we see that the combined treatment effects for Gbane chiefdom is large and positive, with an estimated conditional effect more than 4 times the ATE of .068. By contrast, the the combined treatment effect for Lei is .039, 57% of the average treatment effect. The difference between the pooled treatment effect in Gbane and the pooled treatment effects in Kamara, Nimikoro, and Lei is statistically significant at the 10% level. The fainter points alongside these pooled estimates present the treatment effect of each treatment condition individually, relative to control.

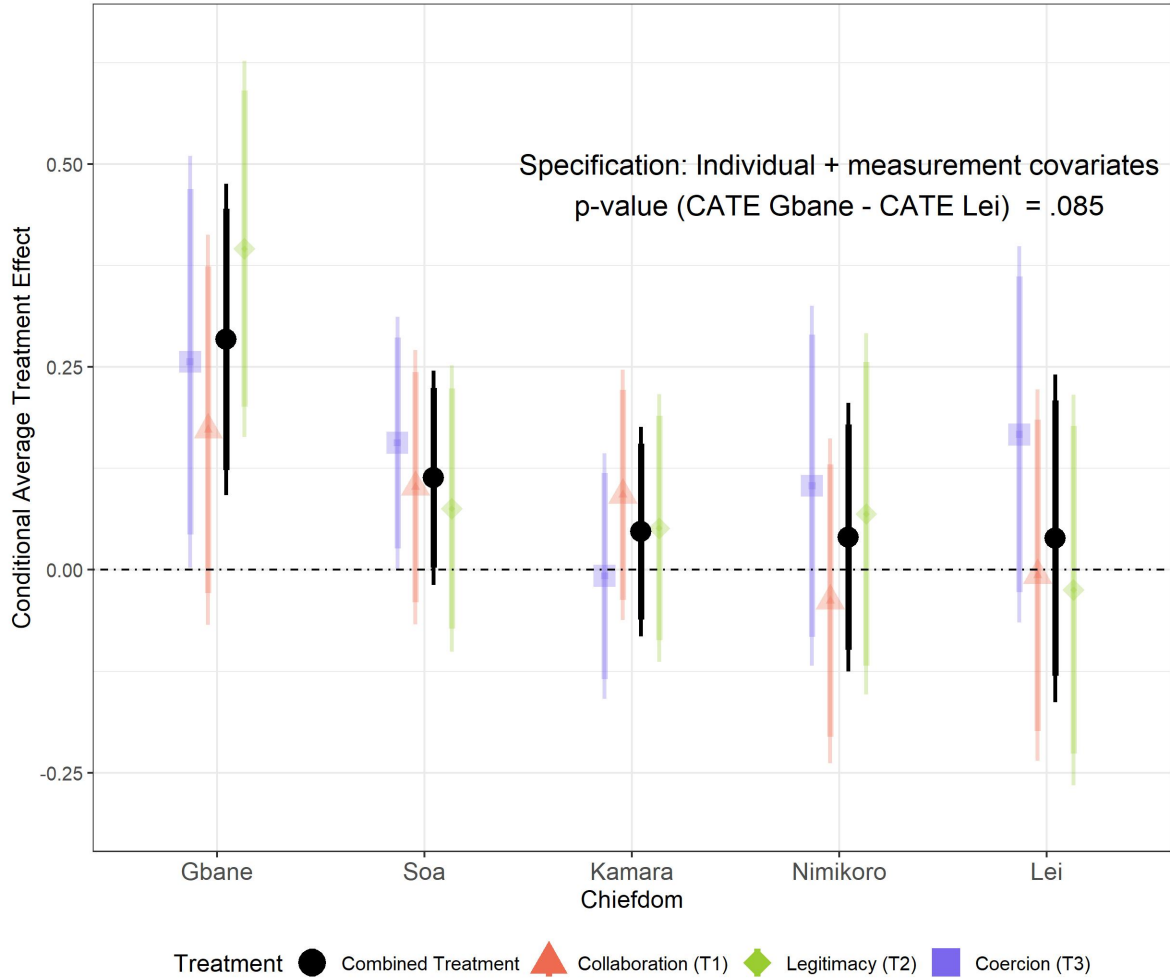


Figure 2: Combined treatment effects by chiefdom

What explains this apparent variation in TPI authority and the effect of collaboration? In section 7, I argued that TPIs use their coercive capacity legitimately to uphold local laws that are socially beneficial. Using interview data, I inductively develop the follow hypothesis: state collaboration with TPIs generates greater compliance where TPIs exercise their coercive capacity legitimately, rather than despotically.

To highlight the plausibility of this argument, I present two chiefdom level vignettes about law enforcement. In the Lei chiefdoms, where I estimate small chiefdom-level treatment effects, I find systematic complaints regarding the enforcement of local laws. Specifically, I find widespread complaints against chiefdom leaders regarding the handling of ongoing conflict between crop farmers and cattle rearers. Conversely, in Gbane chiefdom, where I find the largest conditional treatment effect, I do not find complaints against enacted local laws or their implementation and I find comparatively few negative evaluations of chiefdom leaders.

8.1 Lei Chieftdom

In Lei Chieftdom 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 cattle.⁶²

In three of the five villages where our team conducted interviews in Lei, multiple respondents highlighted frustration with chieftdom authorities regarding their handing of the conflict between crop farmers and cattle rearers. A respondent in Koema 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 according to the byelaw and most times unreasonable 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 [chief's] judgment of this byelaw. Cattle rearers are favored against crop farmers.⁶³

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 its implementation is very bad".⁶⁴ 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".⁶⁵

This perception that crop farmers are getting the short end of the stick turns up in other villages. Says a respondent in Village 2, "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 a cattle, within 30 minutes or an hour, an arrest is made and someone is detained".⁶⁶ A different respondent in Village 2 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! I am a poor man...[the authorities] should take action, but they don't".⁶⁷ In Village 3, I find similar complaints about inaction from chieftdom authorities, "As a man of the country, I haven't see 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."⁶⁸ Even Chieftdom leaders admit that this is a problem. In Village 4, 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."

⁶²Interview: MK5

⁶³Interview: MK5

⁶⁴Interview: KM6

⁶⁵Interview: KN3

⁶⁶Interview: RK5

⁶⁷Interview: KJ1

⁶⁸Interview: KJ2

8.2 Gbane Chiefdom

In Gbane Chiefdom, I fail to find similar systematic complaints about local laws. In only one of the six villages where we conducted interviews did respondents' complaints converge on a similar topic: the role of chiefdom leaders in resolving a boundary dispute with a neighboring village. Three of the eight interviews in this village mention the boundary dispute and place negative judgment on chiefs' role in this dispute. Across 30 interviews 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 HQ town, but the district HQ—for reference, nearly all Paramount chiefs reside most of the time in the district HQ; traveling to Gbane's Chiefdom HQ is a several hour trip on bad roads. In two other villages, the biggest complaints against chiefs are fairly normal demands for development (e.g., improve water access, improve roads), demands are also commonplace in other chiefdoms; I cannot find a complaint against a law or implementation of a law. In a fifth village, there are not specific complaints against law or implementation of law, but there are more consistent complaints about development. In particular, several people here feel left out developing that is occurring other places in the chiefdom. However, there are no complaints about the way laws are implemented.

9 Conclusion

Contemporary local government officials in Sierra Leone *say* that they rely on chiefs to achieve their goals. For the government response to COVID-19, local government officials turned to leaders of TPIs to implement policy in rural areas.⁶⁹ As the Chief Administrator at one District Council expressed it, “If you want to succeed in anything in the chiefdoms, it is very important for you to involve the chiefs. Once they agree and once they talk to their people, you are bound to succeed in whatever intervention you want to make”.⁷⁰

In Africa, especially in this country, when you talk about chiefs they are the symbol of respect. They are more respected, sometimes, than even the councilors and the [Council] chairman. . .

⁶⁹Report by the author.

⁷⁰Interview: CA1

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Appendices

A Survey Measurement

Working with a team of 33 enumerators between May and June 2021, we completed 1,752 surveys across 118 villages in five chiefdoms.

A.1 Visual aid for survey outcome measure

For many questions in our survey, we asked respondents to gauge their expectations or perceptions on a 10-point scale. To make this scale more concrete to survey respondents, all enumerators were given 10 beans and a plastic plate, which served as a visual aid regarding the 10-point scale.

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

Table 10: Responses to practice questions (control group)

Before entering the main modules of the survey, enumerators guided respondents through several sample questions to familiarize respondents with this scale. The response patterns to these practice questions were encouraging and suggested that respondents understood and were comfortable using the 10-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% of respondents report they are more likely to travel to the district capital over the next seven days than over the next thirty days. Table 10 in reports responses to four key sample question for respondents in the control group.

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 10 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 10 percentage points. This means that between-respondent differences in measured outcomes may represent differences in the way respondents map perceived probabilities to the 10-point scale—in addition, of course, to representing real differences in beliefs.⁷¹ Therefore, responses to these practice questions might predict responses to

⁷¹For example, a respondent who believes it to be very unlikely that the President will visit their community tomorrow may represent this believe with zero or one beans. Note that enumerators were trained to emphasize repeatedly that respondents could put as many or as little beans as they like and were allowed to put all ten beans or no beans at all into the plastic plate.

other survey questions, a relationship that can be leveraged to reduce noise when estimating treatment effects. In include several of these measures in the pre-specified covariate adjustment.

A.2 Outcomes description and summary statistics

A.2.1 Description

Indicator Name	Variables Description
Tax Compliance outcomes	
Own tax compliance	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.
Donation game	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.
Others' tax compliance	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	The respondent is asked to imagine a situation in which they would not be fined or penalized 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 10-point scale.
Perceived benefits of tax (accountability mechanism)	
Benefit (own town)	Perceived likelihood that respondent's village will benefit from the property tax. Expressed using the beans.
Benefit (other towns)	Out of 10 towns in the respondent's chiefdom, how many does the respondent think will benefit from the property tax? Expressed using the beans.
Spending efficiency	Proportion of the revenue collected from the tax that will be used for development. Expressed using the beans.
Spending transparency	Perceived ease of finding out how property tax revenue has been spent. Expressed using the beans.
Perceived cost of non-compliance (coercion mechanism)	
Chief fine (self)	Perceived likelihood that chiefs will fine respondent if they fail to pay the property tax. Expressed using the beans.
Chief fine (other towns)	Out of 10 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.
Land bias	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.
Dispute resolution bias	In a dispute between two people, perceived likelihood that chiefs would favor a person who has paid their property tax over a person who has not paid. Expressed using the beans.

Table 11: Description of outcome variables

A.2.2 Summary Statistics

	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 neighbors' 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 revenue was spent	4.46	3.09	0	2	4	7	10	426	2
Coercion Outcomes									
Respondent fined by chiefs if non-compliant	7.51	2.66	0	5	8	10	10	425	3
Proportion villages where chiefs fine the non-compliant	6.39	3.47	0	4	6	10	10	394	34
Chief bias towards compliers in land allocation	7.63	2.46	0	6	8	10	10	425	3
Chief bias towards compliers in dispute resolution	6.53	2.79	0	5	6	10	10	426	2

Table 12: Summary statistics (control group)

B Sampling

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.⁷² I then sampled clusters, and within sampled clusters, I sampled 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 the from chiefdom’s headquarters town that contain a large village.
4. Clusters far the chiefdom’s headquarters town that do not contain a large village.⁷³

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 strata. (There are two strata that contain only one cluster of villages—in these I drew one cluster).⁷⁴
- 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.
- Fourth, in strata where the target number of potential observations was not been met, I drew an additional village from the set of sampled clusters.⁷⁵
- 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.

⁷²Clustering 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 kilometers from the closest village in their new cluster; I dropped these three villages (as noted in the main text).

⁷³In one chiefdom (Kamara), there were no eligible clusters in the stratum representing large village and near the chiefdom’s headquarters town. Therefore, I have 19 total strata from which to draw clusters.

⁷⁴Of course, I selected no clusters in the one stratum that contains no clusters.

⁷⁵For 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.

B.1 Selecting respondents

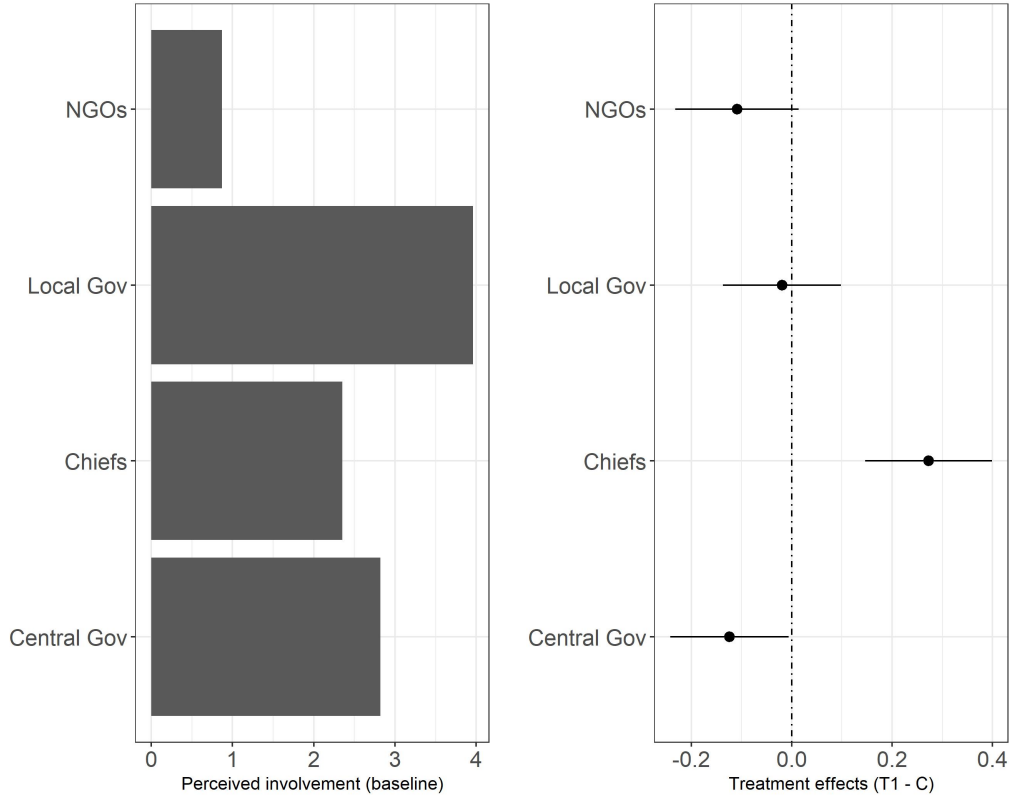
Once in a village, the enumeration team used a random walk strategy to select respondents for the survey. The protocol for this strategy was as follows:

- The enumeration team arrived in the village in the morning and went directly to the house of the town chief (or another village authority if the town 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 town chief, the enumerators agreed to walk in separate directions. After agreeing which directions they would each travel, enumerators used their tablets to select a distance, which told enumerators 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.
- If an enumerator walked past the last structure of the town 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.⁷⁶

⁷⁶Note that in several large villages, enumeration teams were scheduled to conduct interviews for more than one day.

C Manipulation check

Figure 3: T1 increases perceived involvement of TPI



Check: Duplicated and unfinished!

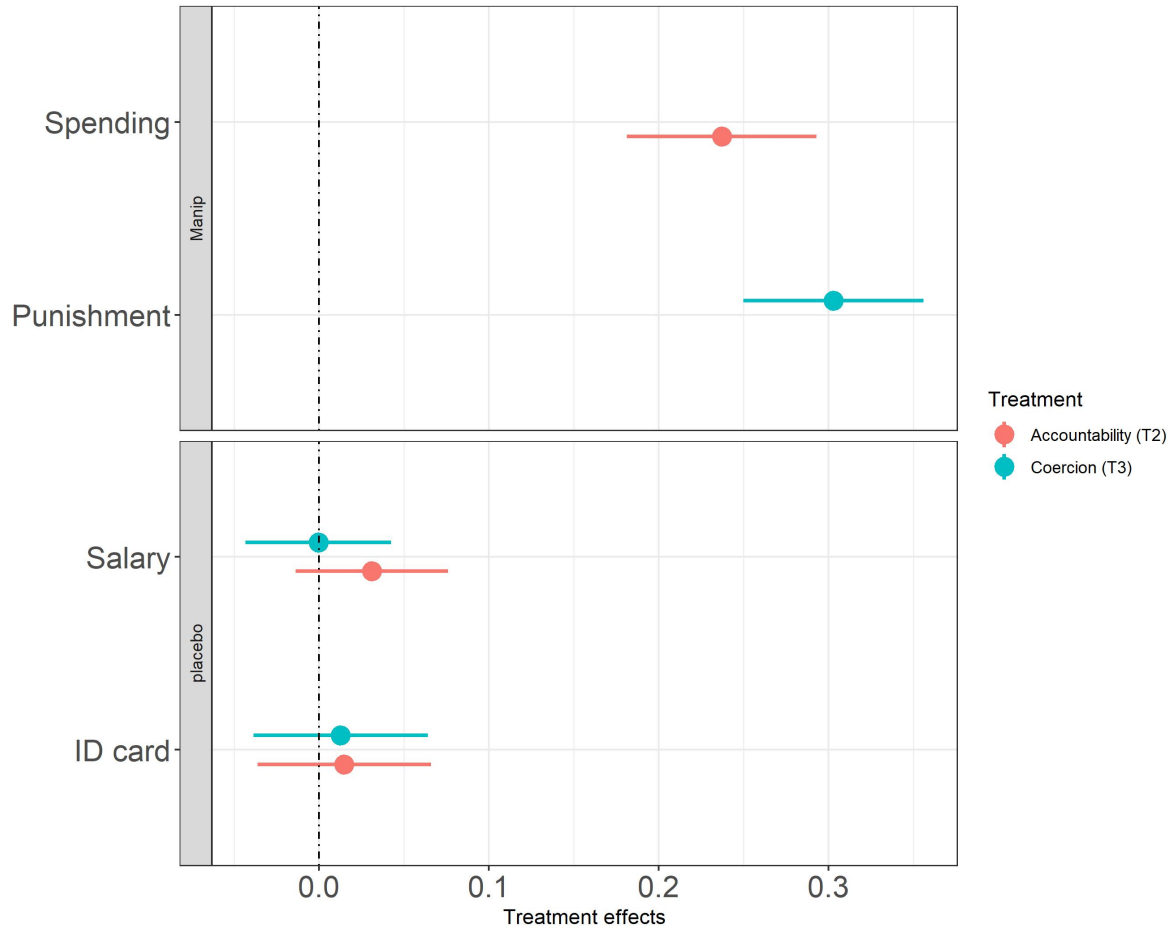
Recall that the Accountability Treatment (T2) and the Coercion Treatment (T3) are designed to prime respondents' beliefs about accountability and coercion mechanisms in TPIs, respectively. To verify that respondents picked up on these subtle but theoretically important primes, we asked respondents to agree or disagree that their video contained each of the four following messages:

- After taxes are collected chiefdom authorities will call a meeting to discuss how to spend the money collected. ["Spending"]
- After taxes are collected chiefdom authorities will call a meeting to discuss how to punish non-compliers. ["Punishment"]
- Tax collectors will be paid 10% of the money they collect. ["Salary"]
- All tax collectors have an identification card with their name and picture. ["ID Card"]

The top box of Figure 4 demonstrates that (1) the Legitimacy Treatment increases the proportion of respondents who agree their video contained a message about discussing how to spend tax revenue and (2) the Coercion Treatment increases the proportion of respondents

who agree their video contained a message about punishing non-compliers.⁷⁷ The bottom box in 4 displays the result of a placebo test, where we asked respondents about messages that *did not* appear in any version of the videos. Respondents in T2 and T3 are no more likely to agree that messages about (1) tax collector salary or (2) tax collector ID cards were included in their video.⁷⁸

Figure 4: Mechanism treatment manipulation check



The tax awareness videos contain information that I expect to modify respondents' beliefs in theoretically important ways. I conduct two sets of manipulation checks to see if respondents are digesting the information presented in the videos. First, I check whether respondents can correctly recall the number and identity of the speakers in the video they watched.⁷⁹ 94% of

⁷⁷ Respondents in the Coercion Treatment group are 30 percentage points more likely than respondents in the collaboration treatment group (T1) to agree that punishment for non-compliance was discussed in the video. Respondents in the Accountability Treatment group are 24 percentage points more likely than respondents in the collaboration treatment group (T1) to agree that how to spend tax revenue was discussed in the video.

⁷⁸ See appendix C for full discussion of manipulation checks.

⁷⁹ 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.

respondents correctly state the number of speakers and 93% correctly identify the speakers. Enumerators asked these questions directly after a respondent watched the video.⁸⁰ Second, I check whether respondents can 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 non-compliers. [“Punish”]
5. Tax collectors will be paid 10% of the money they collect. [“Salary”]
6. All tax collectors have an identification card with their name and picture. [“ID Card”]

Table 13 reports property owner responses by treatment condition. Column 2 (“N”) refers to the number of observations in each treatment group.⁸¹ The value in each of the remaining six columns is the percent of respondents that affirmed a given 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 percent 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% 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 percent of respondents correctly state that compensation for tax collectors is not discussed and 78 percent 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.

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 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

⁸⁰If there were two speakers, this meant correctly naming both.

⁸¹Note that a one respondent is dropped from T2 group, who responded “I don’t know” to these comprehension check questions.

Treatment Arm	N	Tax	Collaboration	Spend	Punish	Salary	ID Card
Control	428	0.95	0.68	0.44	0.42	0.14	0.20
T1 - Collaboration	454	0.98	0.86	0.53	0.48	0.14	0.22
T2 - Accountability	436	0.97	0.89	0.78	0.60	0.18	0.24
T3 - Coercion	433	0.98	0.90	0.75	0.81	0.15	0.24

Table 13: Comprehension check - statements

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 chiefdom authorities was mentioned in the video. Second, let’s turn to the manipulations checks for Treatment 2. The goal of Treatment 2 (accountability video) is to prime respondents to accountability mechanisms in TPIs and in T2 videos the Paramount Chief says he will call a meeting to discuss with his sub-chiefs 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.⁸² Third, we turn to Treatment 3. In these videos the Paramount Chief said that he would call a meeting with chiefdom authorities to discuss how to punish non-compliers. 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.⁸³

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 percent of respondents in the control video (column “Collaboration”) affirm the video discussed collaboration between the local government and the chiefdom 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 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,

⁸²This increase jumps to 34 percentage points when comparing T2 to the pure control.

⁸³This increase jumps to 39 percentage points when comparing T3 to the pure control.

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 (ie., 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.

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. The table below displays results from that pilot. False positive rates in the control group plummet. Only 30 percent of respondents who watch the control video incorrectly state their video discussed collaboration, down from the 68 percent we saw in our true study. Rates of false positives drop across each of the other four comprehension check measures.

Treatment Arm	N	Tax	Collaboration	Spend	Punish	Salary	ID Card
Control	46	0.89	0.30	0.20	0.07	0.09	0.04
T1 - Collaboration	29	0.93	0.72	0.10	0.14	0.00	0.00
T2 - Accountability	37	0.92	0.76	0.70	0.24	0.00	0.03
T3 - Coercion	36	0.94	0.81	0.50	0.50	0.06	0.11

Table 14: Pilot comprehension check - statements

D Intervention Appendix

D.1 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 program infrastructure. After 2019, the focus of the meetings shifted toward strategies to improve tax compliance. An awareness-raising campaign (“sensitization 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 interviewed tax collectors 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.⁸⁴ 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 emphasize (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 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 10 chiefdoms, and I conducted this study in five of those chiefdoms.⁸⁵ In four of these chiefdoms, we filmed both Kono and Krio

⁸⁴In 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).

⁸⁵The selection of chiefdoms is discussed in section 6.

versions. In one (Nimikoro), we only filmed a Kono version, so property owners who did not speak Kono were excluded.⁸⁶

D.2 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 Video

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 story 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 twenty-thousand [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.

⁸⁶In 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.

- If you construct your house as a one story building, whatever happens it's a story building – no matter, they can't build a story building with mud, they only construct cement block with a story building– you pay 300,000 Leones.
- If you have more than one story 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 apologizing. 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 City 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 story 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 house". You pay 120,000 Leones.
- One story building. You pay 300,000 Leones.
- More than one story building. It can have multiple floors. You pay 400,000 Leones.

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. 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: 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: Accountability

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 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: Enforcement

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 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 emphasize that I and the rest of the chiefs will not be merciful on anyone who have refuse to pay the tax.

Lei Chiefdom

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 do not honor the payment of tax for his or her house.

Soa Chiefdom

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 does not like the development of Soa Chiefdom.

Kamara Chiefdom

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 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 chiefdom 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 flout paying their taxes.

E Qualitative Results Appendix

Note: Tables not cleaned.

E.1 Legitimacy

Byelaw	Town	Section	Chieftdom	Any
abusive_language	0.38	0.17	0.20	0.50
fight	0.28	0.12	0.14	0.39
stealing	0.41	0.36	0.41	0.67
rape	0.02	0.08	0.09	0.13
adultery	0.14	0.05	0.07	0.20
underage_love	0.01	0.03	0.02	0.03
respect_boundaries	0.01	0.02	0.01	0.04
communal_labor	0.12	0.14	0.14	0.26
school	0.01	0.03	0.02	0.03
home_birth	0.00	0.00	0.00	0.00
beat_wife	0.02	0.00	0.01	0.03
cow	0.00	0.07	0.06	0.09
mining	0.01	0.01	0.01	0.02
timber	0.00	0.02	0.01	0.03
crop	0.02	0.04	0.04	0.09
other	0.28	0.21	0.19	0.49
no_byelaws	0.07	0.30	0.32	0.45
a_law	0.93	0.70	0.68	0.97

Table 16: Common Bylaws (Town, Section, Chieftdom)

E.2 Coercion

Monitoring	Town	Section / Chiefdom	Any
town_check_point	0.12	0.23	0.28
check_elections	0.00	0.01	0.01
door_checks	0.23	NA	NA
town_list	0.16	NA	NA
no_monitoring	0.44	0.32	NA
other	0.26	0.51	NA

Table 17: Local Tax: Monitoring

Punishment	Town	Section / Chiefdom	Any
fine	0.42	0.55	0.74
jail	0.01	0.06	0.07
take_to_authorities	0.37	0.20	0.45
Shame	0.02	0.01	0.03
nag	0.01	0.00	0.01
other	0.39	0.44	0.53
no_punishment	0.10	0.09	0.13

Table 18: Local Tax: Punishment for non-compliance

Monitor	Town	Section	Chiefdom
no	0.00	0.01	0.07
yes-general	0.17	0.16	0.09
Youth Leader	0.54	0.36	0.32
authority_id	0.12	0.31	0.26
yes_list	0.14	0.13	0.20
yes_door	0.01	0.00	0.01
yes_other	0.03	0.02	0.04

Table 19: Communal Labor: Monitoring

Punish	Town	Section	Chiefdom
no	0.00	0.02	0.04
yes-general	0.13	0.28	0.19
yes_jail	0.01	0.01	0.01
yes_fine	0.81	0.68	0.68
yes_other	0.04	0.02	0.08

Table 20: Communal Labor: Punishment

F Additional Chiefdom Vignettes

F.1 Nimikoro Chiefdom

Nimikoro is a chiefdom famous for diamond mining. While types of complaints levied against chiefdom leaders in Nimikoro are more diverse than in Lei, laws regulating small-scale diamond mining was cause for consternation for many respondents.⁸⁷

In one village, an older man not personally engaged in mining, explains the mining issue:

I have heard certain young men expressing their dissatisfaction about how they are being persecuted by the Chiefs to move away from their current mining sites to give way to persons who have the economic power to undertake large mechanical mining [...]forcing these young men to involuntarily relocate to some other mining locations, leaving their existing mining sites for the persons having the financial power to embark on huge mining.

Says another respondent from the same village, “the mining areas have all been sold to [a Chinese mining company]...and that was not done by us the ordinary men but rather the leaders”.⁸⁸ While mining licenses were always required to mine, residents in this area are no longer allowed to buy those licenses: “[This area] is in a concession place, they don’t allow you to [buy a] license anymore.”⁸⁹ In this village, five of the twelve interviews contained mining related complaints about chiefdom leaders.

In a different village, I coded four of the seven interviews as containing complaints about mining related laws. Again, respondents complained that “[Chiefdom authorities] don’t let us work in places that are good for mining”⁹⁰ or that chiefs said “there wasn’t space” in areas where youth wanted to mine.⁹¹ Another respondent reported that people in the village felt “harassed” by chiefdom authorities about mining.⁹²

In other villages, a common complaint is that once given exclusive access to land, mining companies don’t hire labor from nearby villages.⁹³ If small-scale miners come on productive land, chiefs may take this land for themselves.⁹⁴ In total, I find complaints about mining laws in five of the nine villages where we conducted interviews.

⁸⁷In addition to complaints about mining companies, several respondents also took issue with a law that imposed taxes on harvests and on cutting timber

⁸⁸Interview:SM3

⁸⁹Interview: LM1

⁹⁰Interview: FR3

⁹¹Interview: FR5

⁹²Interview: FR1

⁹³Interview: SR1; Interview:BN2

⁹⁴Interview: SR3