# Delegating Tax Collection Does Not Adversely Affect Demand for Accountability: Experimental Evidence from the D.R. Congo

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#### Abstract

While past scholarship finds that taxation catalyzes citizen participation, little is known about whether the delegation of tax collection to local non-state actors—a common practice in developing countries—undermines demand for accountability directed at the state. We examine a policy experiment in which 101 neighborhoods in Kananga, D.R. Congo, were randomly assigned to property tax collection by state agents or local city chiefs. We combine this source of variation with a novel behavioral measure of collective action in which 2,631 citizens could request community audits of an antipoverty program implemented jointly by the government and city chiefs. We find no evidence that the type of agent in charge of tax collection differentially affected citizens' propensity to hold the state or chief accountable. The results indicate that low-capacity states can raise revenue by delegating tax collection to local leaders in urban areas without adverse consequences for bottom-up accountability.

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## **1** Introduction

Reliance on broad-based taxation is thought to have catalyzed citizen political participation and the emergence of a social contract in early modern Europe (North and Weingast, 1989; Ross, 2004). Recent scholarship has confirmed that tax collection can activate citizen political engagement in weakly institutionalized developing democracies (Paler, 2013; Prichard, 2015; Weigel, 2020; Martin, 2023).

Despite considerable evidence about the links between taxation and accountability, little is known about how delegating collection to non-state actors affects this relationship. Governments have often delegated collection responsibilities to local non-state leaders historically (Levi, 1988) and in many developing countries today (Boone, 2003; Jibao, Prichard and Van den Boogaard, 2017; Gottlieb, LeBas and Magat, 2020). Local leaders, such as chiefs in Africa, are often trusted by citizens (Logan, 2013) and enjoy informational advantages relative to state collectors that allow them to generate higher tax revenue (Balán et al., 2022).

However, delegating tax collection to local non-state leaders could undermine citizen demand for state accountability. Delegation could redirect accountability demands away from the state if it causes citizens to view local elites as having relatively more—and the state relatively less responsibility in public spending and public goods provision (Henn, 2023). Moreover, increasing the number of actors involved in taxation could make it harder for citizens to know whom to hold accountable for taxing and spending decisions (Healy and Malhotra, 2013). Delegating collection could also unwittingly send a signal of weak state revenue and spending capacity and dull citizens' incentives to hold the state accountable (Weigel, 2020). Thus, while there could be revenue gains from delegation, tax collection by informal actors could adversely affect the formation of the fiscal contract between the citizen and the state.

We examine the accountability consequences of delegating tax collection to local non-state actors using a randomized policy experiment implemented in Kananga, a provincial capital in the Democratic Republic of the Congo (DRC). We extend the experimental design described in Balán et al. (2022) in which 367 neighborhoods were randomized into property tax collection by state agents or local chiefs. In 2018, the government started delegating tax collection in the city from provincial government state agents to city chiefs in randomly selected neighborhoods. This allows us to study the effects on accountability of delegating tax collection to chiefs (the treatment) relative to the status quo of tax collection by state agents (the control).<sup>1</sup> Our design holds constant all other aspects of taxation—including the level of government that received the tax revenue (the province)—allowing us to isolate the accountability effects of the state's decision to use different types of agents to collect taxes.

To obtain a real-world measure of demand for accountability after the tax campaign, we partnered with the provincial government's Division of Social Affairs (DIVAS). In 101 of the original 367 study neighborhoods, 20 percent of households (N = 2,631) were given a chance to request a community audit of the chief and/or the state concerning a recent government-run antipoverty program distributed by city chiefs in each neighborhood. Citizens were informed that neighborhoods that submitted the most requests would have audit meetings organized by a respected local civil society organization. Submitting the request form required costly action on the part of citizens delivering a completed form to a locked drop box in the city center — and thus provides a realworld measure of citizens' accountability demands. Crucially, citizens could request audits of the state, the chief, or both, given that both parties jointly administered the antipoverty program.

We use this design to test two pre-registered hypotheses: that tax collection by chiefs (relative to tax collection by state agents) reduces accountability demands directed at the state (H1) and enhances accountability demands directed at the chief (H2). Support for both hypotheses would indicate that chief collection reoriented accountability pressure from the state to the chief.

<sup>&</sup>lt;sup>1</sup>A randomized evaluation of a prior city-wide property tax campaign involving only state agents as collectors found substantial treatment effects on citizen demand for accountability, demonstrating the existence of tax-based accountability in Kananga (Weigel, 2020).

Despite strong first stage results, we find no support for either hypothesis. Across all neighborhoods, about 17 percent of citizens requested audits of the chief and the state but there is no indication that chief tax collection differentially shaped demands for accountability directed at the state or the chief. Additional results, mechanism tests, and explorations of alternative hypotheses all reinforce the substantive conclusion that the delegation of tax collection to chiefs did not undermine demand for state accountability. The results suggest that it is possible for weak states to delegate tax collection to local city chiefs without impeding the formation of a fiscal contract.

## 2 Experimental Design

This article presents results from a randomized policy experiment embedded in the 2018 property tax campaign in the city of Kananga, DRC. Tax collectors went door to door, constructing a previously non-existent property register and providing information about the property tax in 367 neighborhoods in Kananga. After completing the registry, the same agents returned to collect taxes. Both city chiefs and state collectors received identical training, followed identical collection procedures during the campaign, and had identical financial incentives to collect taxes.<sup>2</sup>

In this study, we compare the two main treatment arms that vary *which actor* collected property taxes for the state: state agents or city chiefs.<sup>3</sup> In *state* collection neighborhoods, tax collection was carried out by the staff of the provincial tax authority. State collectors were nonsalaried contractors who had undertaken previous work for the tax ministry and other branches of the provincial government. In *chief* collection neighborhoods, tax collection was carried out by city chiefs, who are local notables nominated by elders in the community and rubber-stamped by city officials but with indefinite and often lifelong tenure. City chieftaincy is an important 'neo-customary' institution  $^{2}$ See Balán et al. (2022) and Bergeron et al. (2023) for additional details and the full evaluation of

this tax campaign.

<sup>&</sup>lt;sup>3</sup>These same experimental arms are referred to, respectively, as *central* and *local* collection in Balán et al. (2022) and Bergeron et al. (2023).

across Francophone Africa (Boone, 2014), and one that is clearly distinct from the formal state (Balán et al., 2022).<sup>4</sup> While city chiefs have less power and are more easily monitored by the state than customary chiefs in villages (Baldwin, 2015), they are similarly responsible for adjudicating disputes and overseeing community-led maintenance of local routes and infrastructure.

We examine the effect of chief tax collection on citizen willingness to hold the state and chiefs accountable. The ideal outcome measure would be a costly form of accountability pressure from citizens concerning the responsibility of both chiefs and state agents to provide public goods — the other side of the social contract. To approximate such a measure, we study a government antipoverty cash transfer program implemented one year after the tax campaign by the Division of Social Affairs (DIVAS). This program tasked city chiefs with the allocation of eligibility tickets to the poorest quintile of households in each neighborhood (Bergeron et al., 2023).<sup>5</sup> DIVAS officials then conducted a lottery to select five households to receive cash transfers of 10,000 Congolese Francs, equivalent to one month of household income for this target population. DIVAS officials and chiefs then delivered transfers to the winners. The program is thus jointly administered by state and non-state agents, providing incentives for citizens to hold both types of agent to account.

In a random sample of 101 of the 367 neighborhoods (50 *chief* and 51 *state* collection neighborhoods), we embedded a measurement strategy to detect bottom-up accountability pressure. Prior to the distribution of eligibility tickets, 20 percent of households in the 101 study neighborhoods (N = 2, 631) were randomly selected to receive forms providing information about the program and allowing them to request a community audit meeting run by a respected civil society organiza-<sup>4</sup>Our baseline data shows that 77.8 percent of citizens had "some" or "a lot" of trust in city chiefs, which is considerably higher than levels of trust in the national government, provincial government, and state tax collectors (46, 42, and 40 percent, respectively).

<sup>5</sup>Because of their local information, chiefs are often involved in targeting scarce state benefits in developing countries (Alatas et al., 2012; Basurto, Dupas and Robinson, 2019).

tion (Table A1).<sup>6</sup> Crucially, citizens could request audits of the state, the chief, or both, given that both parties jointly administered the cash transfer program. Citizens were required to submit separate audit requests for each actor in locked letter boxes in different locations in of the city center such that submitting both forms entailed higher costs than submitting one. Submitting audit requests thus required costly action — incurring transport costs equivalent to the median daily wage — and provides us with a real-world measure of citizens' accountability demands. We summarize the intervention and the data collection activities in Table A2.

We estimate the intent-to-treat effect of *chief* (relative to *state*) tax collection on demands for accountability targeting the chief or the provincial government with the following equation:

$$Y_{ijk} = \beta CHIEF_{jk} + \alpha_k + \mathbf{X}_{ijk}\Gamma + \mathbf{X}_{jk}\Lambda + \epsilon_{ijk}, \tag{1}$$

where *CHIEF*<sub>jk</sub> is an indicator for whether tax collection in neighborhood k was done by the city chiefs (coded 1) versus by state agents (coded 0).  $Y_{ijk}$  are individual-level measures of submitting a form requesting an audit of the chief or provincial government for citizen i in neighborhood k and stratum j.<sup>7</sup> Additionally, in some analysis below,  $Y_{ijk}$  are secondary outcomes from surveys conducted 3-6 months and 6-12 months after the tax intervention.<sup>8</sup>  $\alpha_k$  are fixed effects for the randomization strata, and  $\mathbf{X}_{ijk}\Gamma$  and  $\mathbf{X}_{jk}\Lambda$  refer to individual and neighborhood-level controls (see Appendix Tables A5 and A7 for details).<sup>9</sup> We cluster heteroskedastic-consistent standard <sup>6</sup>Citizens were informed that the SOCICO (the Civil Society of Congo) would organize community audit meetings in the ten neighborhoods with the highest submission rate; state agents (from DIVAS) and/or the chief would be required to attend.

<sup>7</sup>Random assignment was stratified on a combination of geographic location of the neighborhood as well as compliance in a previous tax campaign.

<sup>8</sup>Analyses relying on survey data draw on all respondents in our study neighborhoods, not just those who received fliers.

<sup>&</sup>lt;sup>9</sup>Treatment groups were balanced on covariates (Appendix A1.3).

errors  $\epsilon_{ijk}$  at the neighborhood level. We interpret  $\beta < 0$  as support for H1 when  $Y_{ijk}$  designates submission of a form requesting an audit of the state and  $\beta > 0$  as support for H2 when  $Y_{ijk}$ designates submission of a form requesting an audit of the chief.

## **3** First-Stage Results

While both state and chief tax collectors raised revenue, chiefs outperformed state collectors. Replicating results from Balán et al. (2022) in our sample of 101 neighborhoods, we find that tax compliance in chief collection neighborhoods was 3.5 percentage points higher, on average, than in state collectors neighborhoods (Appendix Figure A1). Moreover, the distinction between chiefs and state collectors was also highly salient to citizens, which is not surprising given that chiefs are long-standing residents of the neighborhoods they tax. Indeed, at baseline 81 percent of citizens knew the chief personally and could provide his or her name, whereas state collectors were randomly assigned throughout the city and were unknown to the residents. As further evidence of the salience of tax collector type, Figure A2 shows that 99 (1) percent of households reported that state agents (chiefs) collected taxes in state collection neighborhoods. In comparison, 57 percent reported paying taxes to the chief in chief collection neighborhoods.<sup>10</sup> All in all, chief taxation both increased compliance and was salient to citizens, which motivates our inquiry into the consequences for bottom-up accountability.

## 4 Main Results

Despite strong first-stage results, we find no evidence that taxation by chiefs produced differential accountability demands directed at chiefs or the state. Across all neighborhoods, about 17 percent of citizens requested audits of the chief *and* of the state. Tax collection by chiefs, however, did not

<sup>&</sup>lt;sup>10</sup>Of note, 43 percent reported that they paid taxes to "the government" in chief collection neighborhoods, which could indicate awareness that tax payments are remitted to the provincial government.

weaken demand for state accountability (H1). Across treatments, citizens were equally likely to request audit meetings targeting the state (Table 1, Columns 1-2) and targeting the chief (Table 1, Columns 3-4). To assess the extensive and intensive margins of citizen engagement, we examine the effect of chief tax collection on submitting a form demanding accountability by either actor (Table 1, Columns 5-6) or both actors (Table 1, Columns 7-8). We again see no differences. These results are robust to a variety of robustness tests, including adding more controls (Table A5) and using alternative stratum fixed effects (Table A7). In all cases, the treatment coefficients approximate zero, indicating a genuine null result.

|                      | Gov meeting       |                   | Chief meeting     |                   | Either            |                   | Both              |                   |
|----------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
|                      | (1)               | (2)               | (3)               | (4)               | (5)               | (6)               | (7)               | (8)               |
| Chief tax collection | -0.014<br>(0.029) | -0.007<br>(0.028) | -0.010<br>(0.030) | -0.003<br>(0.029) | -0.008<br>(0.030) | -0.000<br>(0.029) | -0.017<br>(0.029) | -0.009<br>(0.028) |
| Control mean         | 0.169             | 0.169             | 0.171             | 0.171             | 0.180             | 0.180             | 0.161             | 0.161             |
| Observations         | 2631              | 2629              | 2631              | 2629              | 2631              | 2629              | 2631              | 2629              |
| Clusters             | 101               | 101               | 101               | 101               | 101               | 101               | 101               | 101               |
| Stratum FE           | Yes               |
| Controls             | No                | Set I             |

Table 1: Effects of chief tax collection on demand for citizen meetings

*Notes:* This table reports the effect of chief (versus state agent) tax collection on the demand for citizen meetings. Coefficients on *Chief tax collection* indicator are OLS estimates with robust standard errors clustered at the polygon level (the unit of randomization and of analysis) and associated p-values (\*\*\*p < 0.01; \*\*p < 0.05; \*p < 0.1). Gov (Chief) Meeting is the proportion of citizens requesting a meeting with the provincial government (chief). Either (Both) is the proportion of citizens in a given polygon requesting a meeting with either (both) the chief or the provincial government. Clusters are polygons that had a collective action opportunity (j = 101) and where tax collection was done exclusively by the chief (j = 51) or by the provincial government (j = 50). *Stratum FE* denotes randomization strata fixed effects. *Set I* controls include wave, distance to letterboxes, house type, revenue in 2016, and participation in 2016.

Several additional analyses confirm these null results. First, we find no difference between treatment and control using survey measures of accountability demand (Figure A5) or political participation (Figure A9). Second, a natural question is whether the similar levels of citizen accountability demand that we observe across treatments in fact reflect an *erosion* of demand in chief tax neighborhoods given that chiefs raised more revenue. While we do observe a positive relationship between neighborhood-level revenue and participation in the state collection group and a negative relationship in the chief collection group, this difference is not statistically significant (Figure A3). Third, we examine heterogeneous effects by tax payment propensity following

findings from Balán et al. (2022) that chiefs target high payment propensity households for tax collection (see Table A10). We find that households targeted by chief collectors increased their accountability demands to both the chief and the state, consistent with chief taxation increasing accountability demands in general but not at the expense of accountability demands on the state. Ultimately, the evidence suggests that chief taxation does not impact accountability demands on the state relative to the chief.

The null results are further confirmed by a lack of support for the theorized mechanisms. The central concern was that chief taxation would lead citizens to view the chief as having more responsibility or capacity in public spending and public goods provision than the state, causing some to reorient their accountability demands from the state to the chief. Yet, we observe no differences across treatments in the perceived capacity of the state (Table A11) or the perceived responsibility of chiefs to provide a range of public goods (Figure A6). Citizens overwhelmingly viewed the national and provincial governments as primary public goods providers, regardless of which actor collected taxes. Citizens were also aware that ultimately, the tax revenue collected from the property tax campaign is remitted to the state (Figure A4), which could explain why citizens do not differentiate accountability demands on the basis of who collected taxes. All in all, the results suggest that, in a weak state like the D.R. Congo, the government can delegate tax collection to non-state actors in urban areas and enhance revenue collection without weakening the demand for state accountability.

## 5 Alternative Explanations

To support the substantive interpretation of our null results, we rule out a number of alternative explanations.

Audit meetings and demand for accountability. One possibility is that citizens might not have viewed requesting and attending a meeting as a meaningful way to hold chiefs or the state accountable. This could be the case if, for instance, citizens typically use other means to hold chiefs accountable (Scott, 1990). However, according to focus groups, similar meetings are precisely the way citizens of Kananga make demands of their leaders (Vansina, 1990). Other evidence reinforces that the meetings captured meaningful accountability demands. First, respondents who submitted audit request forms were more likely to participate in the audit meetings, suggesting a genuine interest in the meeting itself (Table A13). Second, citizens' comments at the meetings and complaint forms they filled out—in both *state* and *chief* collection neighborhoods—focused on the transparency, public integrity, and accountability of the state or the chief in administering the public goods provision program (see the text analysis in Table A12 and Figures A8-A9). Third, survey evidence collected before the meetings shows that citizens perceived the audits as a meaningful way to monitor and sanction the program's leaders. In *Chief* collection neighborhoods, 50.5 percent of survey respondents said it was either likely or very likely that the chief would be sanctioned should a meeting take place, with analogous responses in *State* collection neighborhoods.

**Tax collection salience.** A second possible explanation for the null results is that tax collection was no longer salient to citizens when deciding whether to demand an accountability meeting. We intentionally avoided an explicit link between the antipoverty cash transfer program and taxation to avoid mechanical effects on participation (i.e., citizens participating to ask factual questions about taxation rather than demanding accountability for public goods provision). We also measured accountability on average one year after tax collection to avoid capturing short-term effects. That said, it is possible that a lack of salience of taxation at the time of measured participation explains the similar results across collector treatments.

To investigate, we examine whether treatment effects were more pronounced in neighborhoods with less time between the tax campaign and the collective action opportunity. This time gap was random since the timing of both the tax campaign and the antipoverty cash transfer program were randomly assigned at the neighborhood level. Audit request form submission does not appear higher in neighborhoods with a shorter gap between taxation and participation (Table A15). Additionally, we conducted a priming experiment embedded in the audit form to check whether

reminding citizens to think of themselves as taxpayers strengthened the link between taxation and accountability. However, we find no evidence that respondents addressed as "taxpayers" were more likely to participate than respondents addressed as "citizens" (Table A14), reinforcing that a lack of salience is not the issue.

**Coercive power.** We also consider whether tax collection by either the state or chief increased the perceived coercive power of either actor, making citizens less willing to hold either accountable. While the forms were anonymous, it is possible that citizens thought that the chiefs or the government nevertheless had ways to know who submitted an audit request form. However, according to survey data on the fear of coercion by the chief and the government, there are no differences across treatment and control (Table A16, Columns 3-6).

**Chief tax collection targeting by ethnicity.** Another possible explanation is that chiefs used their informational advantage to collect taxes from loyal citizens such as coethnics or other citizens they suspected would pay without increasing accountability demands. This possibility is consistent with the idea that local chiefs could be more successful at raising taxes from coethnics (Kasara, 2007) or at otherwise suppressing citizen accountability demands (Gottlieb, LeBas and Magat, 2020). However, there is no evidence that coethnics of the chief were more likely to be targeted in chief relative to state neighborhoods (Balán et al., 2022) or that chief tax collection made ethnicity more salient in the neighborhood (Table A17). Moreover, the coethnics of the chief were no less responsive to treatment in demanding audit meetings targeting the chief or the government (Table A18).

**Chief co-optation.** Finally, chief taxation might have led citizens to believe that chiefs were co-opted by the government and thus less accountable to citizens. To test this possibility, we examine a survey question that asked citizens whether they perceive the chief to act more closely in accordance with the preferences of the community or with the preferences of the government when they conflict. According to this measure, delegating tax collection to chiefs did not change citizens' perception that chiefs are co-opted by the government (Table A16, Columns 1-2).

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## 6 Conclusion

Using a randomized field experiment in D.R. Congo, we find that delegating tax collection from the state to local city chiefs does not undermine citizen accountability demands on the state or increase accountability demands on the chief at the state's expense. While these findings do not necessarily generalize to rural chiefs, the null results provide evidence that, in a weak state like the D.R. Congo, delegating tax collection to non-state actors in urban areas can raise revenue without incurring a bottom-up accountability penalty and impeding the formation of a citizen-state fiscal contract. They also suggest that states cannot strategically delegate tax collection to *avoid* accountability pressure.

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## A1 Additional Information on Experimental Design

## A1.1 Intervention and Data Collection Activities

Treatments were randomly assigned at the neighborhood level. In this paper, we use the subset of Gov and Chief neighborhoods in Kananga that had a collective action opportunity (J = 106 in total including the pure control group), i.e., neighborhoods in which citizens received fliers for meeting invitations as well as the accompanying meeting request forms. Within those neighborhoods, N = 2815 households received a flier; for these households, we were able to verify correct audit form submission or absence of submission. Assignment was stratified on a combination of geographic location as well as tax compliance in the previous tax campaign. We report the timeline of the main intervention and data collection activities in Table A2. Details on the full intervention as well as on the lottery ticket distribution for the anti-poverty program are reported in Balán et al. (2022) and Bergeron et al. (2023).

|                              |                  | Central | Local  | Control |
|------------------------------|------------------|---------|--------|---------|
| Tax Campaign Sample          | Neighborhoods    | 110     | 111    | 5       |
|                              | Property owners  | 14,489  | 14,383 | 797     |
| Collective Action Sub-Sample | Neighborhoods    | 50      | 51     | 5       |
|                              | Flier recipients | 1,328   | 1,318  | 169     |

| Activity                             | Actor          | Timing            | Ν      | J   |
|--------------------------------------|----------------|-------------------|--------|-----|
| Tax campaign                         |                |                   |        |     |
| Taxation                             |                |                   |        |     |
| Property registration                | Collectors     | May-Dec 2018      | 13,996 | 106 |
| Tax visits                           | Collectors     | May-Dec 2018      | 13,996 | 106 |
| Evaluation                           |                |                   |        |     |
| Baseline survey                      | Enumerators    | Jul-Dec 2017      | 2,268  | 106 |
| Midline survey                       | Enumerators    | Jun 2018–Feb 2019 | 10,928 | 106 |
| Endline survey I                     | Enumerators    | Mar–Sep 2019      | 1,626  | 106 |
| Collective action opportunity        |                |                   |        |     |
| Program                              |                |                   |        |     |
| Flier and audit form distribution    | SOCICO         | Jun-Oct 2019      | 2,815  | 106 |
| Evaluation                           |                |                   |        |     |
| Audit form collection and validation | Enumerators    | Oct 2019          | 2,815  | 106 |
| Cash transfer program                |                |                   |        |     |
| Program                              |                |                   |        |     |
| Program ticket distribution          | Chiefs         | Jun–Oct 2019      | 2,799  | 106 |
| Lottery                              | Chiefs & DIVAS | Jun–Oct 2019      | 106    | 106 |
| Cash transfer distribution           | Chiefs         | Jun-Oct 2019      | 530    | 106 |
| Evaluation                           |                |                   |        |     |
| Endline survey II                    | Enumerators    | Jun-Dec 2019      | 3,037  | 106 |

#### Table A2: Timing of all Activities and Data Collection

*Notes:* This table summarizes the intervention and the data collection activities. Column N is the number of observations, Column J is the number of clusters (neighborhoods). All numbers correspond to the subset of households in the Gov and Chief collective action as well as the control group neighborhoods (J = 106), the larger superset is reported in Balán et al. (2022).

## A1.2 Audit Request Form

#### Do you want an audit and verification meeting?

As part of this program, you and other people in your avenue can **request an audit and verification meeting** organized by a civil society organization in Kananga. This is an opportunity for you as a [citizen/taxpayer] to learn more about this program and whether it was implemented properly and fairly. The meeting can focus on the actions taken by the **Division of Social Affairs**, by your **avenue chief**, or **both** in this development program.

**IMPORTANT :** The civil society organization will only organize a meeting for your avenue if many residents request one.

To <u>request an audit meeting of [Actor1]</u>, submit the [COLOR] form to the [COLOR] drop box located at [ADDRESS1].

To request an audit meeting of [Actor2], submit the [COLOR] form to the [COLOR] drop box located at [ADDRESS2].

To request meetings involving **both** actors, submit both forms to the correct boxes. Everything you write will be kept confidential from the concerned parties. All forms must be submitted by **[date]**.

The avenues that submit the most requests (as a share of all households) will get top priority to receive an audit meeting. Your action is important!

# **REQUEST MEETING** of the **[DIVAS/Chef]**.

To request a meeting of the [DIVAS/Chef], please <u>deposit this</u> form into the locked box at :

#### [LOCATION].

The box will have show this colored stamp:

[COLOR STAMP]

Request of the compound: [Code]

# **REQUEST MEETING** of the **[DIVAS/Chef]**.

To request a meeting of the [DIVAS/Chef], please <u>deposit this</u> form into the locked box at :

#### [LOCATION].

The box will have show this colored stamp:

[COLOR STAMP]

Request of the compound: [Code]

*Note:* This figure shows the Audit Request Form that citizens could use to request a community audit of the chief and/or the state concerning the cash transfer program distributed by city chiefs in each neighborhood.

## A1.3 Design Diagnostics: Balance and Interference

In Tables A3 and A4, we report results of a series of balance tests on important pre-treatment covariates. In Table A3, Panels A-C test balance for randomization of the tax collection treatment in all neighborhoods, and panels D-F test balance for the randomization of flier receipt. In Table A4, we repeat this analysis for flier recipients only and examine balance for the tax collection treatment. In particular, we report a series of regressions of the main covariate of interest on the treatment indicator. These covariates include characteristics of property owners, properties and neighborhoods.

| Table A3: | Balance | Tests for | · Covariates |
|-----------|---------|-----------|--------------|
|-----------|---------|-----------|--------------|

|   | Ν       | J   | $\bar{x}_C$ | β     | SE    | p    |
|---|---------|-----|-------------|-------|-------|------|
| I. Gov vs Chief Tax Collection                        |         |     |             |       |       |      |
| Panel A: Property owner characte                      | ristics |     |             |       |       |      |
| $Age_{C}^{B}$   | 1203    | 101 | 50.59       | -0.55 | 1.17  | 0.64 |
| Female <sup>B</sup>                                   | 1203    | 101 | 0.35        | -0.04 | 0.03  | 0.18 |
| Has electricity <sup><math>B</math></sup>             | 1203    | 101 | 0.15        | -0.02 | 0.02  | 0.35 |
| Erosion <sup>B</sup>                                  | 1202    | 101 | 0.25        | 0.05  | 0.06  | 0.39 |
| Fence quality <sup><math>B</math></sup>               | 1202    | 101 | 1.47        | 0.01  | 0.08  | 0.92 |
| Years of education <sup><math>B</math></sup>          | 1201    | 101 | 10.87       | -0.51 | 0.39  | 0.19 |
| Log HH monthly income <sup><math>B</math></sup>       | 1193    | 101 | 10.60       | 0.05  | 0.25  | 0.84 |
| Possessions (wealth) <sup><math>B</math></sup>        | 1203    | 101 | 1.16        | -0.03 | 0.11  | 0.81 |
| $\operatorname{Employed}_{C}^{M}$                     | 7372    | 100 | 0.73        | 0.00  | 0.02  | 0.93 |
| Salaried <sup><math>M</math></sup>                    | 7375    | 101 | 0.26        | -0.01 | 0.01  | 0.46 |
| Works for government <sup><math>M</math></sup>        | 7375    | 101 | 0.17        | -0.01 | 0.01  | 0.55 |
| Majority tribe <sup><math>M</math></sup>              | 6843    | 101 | 0.77        | 0.03  | 0.04  | 0.46 |
| Panel B: Property characteristics                     |         |     |             |       |       |      |
| Walls good cond. <sup><math>R</math></sup>            | 10801   | 101 | 1.75        | -0.03 | 0.05  | 0.60 |
| Roof good cond. $\overset{R}{C}$                      | 10420   | 101 | 0.44        | -0.02 | 0.04  | 0.60 |
| Dist. city center $M$                                 | 13064   | 101 | 3.01        | 0.03  | 0.27  | 0.93 |
| Dist. state buildings <sup><math>M</math></sup>       | 13064   | 101 | 0.77        | 0.16  | 0.12  | 0.19 |
| Dist. hospitals <sup><math>M</math></sup>             | 13064   | 101 | 1.18        | 0.02  | 0.16  | 0.91 |
| Dist. public schools <sup><math>M</math></sup>        | 13064   | 101 | 0.37        | 0.04  | 0.05  | 0.35 |
| Panel C: Neighborhood character                       | istics  |     |             |       |       |      |
| P <sub>c</sub> property tax revenue $2016^B$          | istics  | 101 | 104 69      | 11 57 | 39 58 | 0.77 |
| Avg participation index $2010_C$                      |         | 101 | -0.02       | -0.04 | 0.07  | 0.49 |
| H Elien Dessint                                       |         | 101 | 0.02        | 0.01  | 0.07  | 0.15 |
| II. Flier Receipt<br>Panel A: Property owner characte | ristics |     |             |       |       |      |
| $\Lambda_{\alpha\alpha}B$                             | 1203    | 101 | 50.30       | 0.10  | 1 1 1 | 0.86 |
| $\operatorname{Femala}^B$                             | 1203    | 101 | 0.39        | -0.19 | 0.03  | 0.00 |
| Hese algorithms $B$                                   | 1203    | 101 | 0.52        | 0.00  | 0.03  | 0.08 |
| Freedom <sup>B</sup>                                  | 1203    | 101 | 0.14        | -0.01 | 0.03  | 0.04 |
| Erosion<br>Eonoo quality $^B$                         | 1202    | 101 | 1.40        | 0.01  | 0.05  | 0.04 |
| Varia of education $B$                                | 1202    | 101 | 1.49        | -0.03 | 0.05  | 0.58 |
| Lease $HH$ monthly income <sup>B</sup>                | 1102    | 101 | 10.02       | 0.21  | 0.32  | 0.52 |
| $\mathbf{P}_{\text{Descessions}}$ (wealth) $B$        | 1202    | 101 | 1 16        | -0.04 | 0.19  | 0.84 |
| Employed <sup>M</sup>                                 | 7272    | 101 | 0.72        | -0.03 | 0.09  | 0.78 |
| Employed $C$  | 7275    | 100 | 0.75        | 0.00  | 0.01  | 0.74 |
| Works for government <sup><math>M</math></sup>        | 7275    | 101 | 0.20        | 0.01  | 0.01  | 0.47 |
| Wolks for government <sub>C</sub>                     | 6912    | 101 | 0.10        | 0.01  | 0.01  | 0.50 |
|   | 0845    | 101 | 0.79        | 0.00  | 0.01  | 0.00 |
| Panel B: Property characteristics                     |         |     |             |       |       |      |
| Walls good cond. $_{C}^{n}$                           | 10801   | 101 | 1.74        | -0.01 | 0.02  | 0.58 |
| Root good cond. $_{C}^{n}$                            | 10420   | 101 | 0.43        | 0.00  | 0.01  | 0.73 |
| Dist. city center $M$                                 | 13064   | 101 | 3.04        | -0.01 | 0.01  | 0.70 |
| Dist. state buildings <sup><math>1V1</math></sup>     | 13064   | 101 | 0.86        | 0.00  | 0.01  | 0.84 |
| Dist. hospitals <sup>1/4</sup>                        | 13064   | 101 | 1.21        | -0.01 | 0.01  | 0.15 |
| Dist. public schools <sup>1/1</sup>                   | 13064   | 101 | 0.39        | 0.00  | 0.00  | 0.42 |
| Panel C: Neighborhood character                       | istics  |     |             |       |       |      |
| P.c. property tax revenue $2016_C^B$                  |         | 101 | 113.01      | 1.74  | 1.39  | 0.22 |
| Avg. participation index $2017_C^B$                   |         | 101 | -0.06       | 0.00  | 0.00  | 0.17 |

*Notes:* This table reports a series of individual regressions of the main covariate of interest on the treatment indicator including characteristics of property owners, properties and neighborhoods. Subpanels A-C test balance for the randomization of (i) the tax collection treatment (Chief v Gov) and (ii) flier receipt. For all variables except the neighborhoodlevel variables in Panel C, we use individual receipt of a flier within collective action neighborhoods as the predictor. In Panel C, we use the number of fliers per polygon as the predictor since this is a polygon-level outcome. As usual, these regressions include clusterrobust standard errors and randomization stratum fixed effects. In Panel II.C, we use WLS to regress cluster-level averages on treatment indicators, with weights proportional to cluster size. Superscripts denote the data source of the pre-treatment covariates: B denotes Baseline survey, M denotes Midline survey and R denotes Registration data. Note that for the Midline (M) variables, 44-48% of the 13,267 observations are missing. Subscript C is an indicator for that variable being included as a control variable when estimating treatment effects.

|   | N        | J     | $\bar{x}_C$ | Â     | SE   | p    |
|---|----------|-------|-------------|-------|------|------|
| Panel A: Property owner cha                     | aracteri | stics |             |       |      |      |
| $Age_C^B$                                       | 256      | 94    | 51.20       | -2.10 | 2.14 | 0.33 |
| $\operatorname{Female}^B_C$                     | 256      | 94    | 0.36        | 0.03  | 0.06 | 0.58 |
| Has electricity <sup><math>B</math></sup>       | 256      | 94    | 0.15        | -0.05 | 0.04 | 0.19 |
| $Erosion^B$                                     | 256      | 94    | 0.23        | 0.10  | 0.08 | 0.19 |
| Fence quality <sup><math>B</math></sup>         | 256      | 94    | 1.47        | -0.06 | 0.10 | 0.53 |
| Years of education <sup><math>B</math></sup>    | 255      | 94    | 10.94       | -0.57 | 0.55 | 0.31 |
| Log HH monthly income <sup><math>B</math></sup> | 252      | 94    | 10.48       | 0.14  | 0.34 | 0.68 |
| Possessions (wealth) $^B$                       | 256      | 94    | 1.15        | -0.09 | 0.18 | 0.61 |
| $\operatorname{Employed}^M_C$                   | 1460     | 98    | 0.74        | 0.00  | 0.03 | 0.92 |
| Salaried $_{C}^{M^{\circ}}$                     | 1462     | 99    | 0.27        | -0.01 | 0.02 | 0.66 |
| Works for government $_{C}^{M}$                 | 1462     | 99    | 0.17        | -0.01 | 0.02 | 0.73 |
| Majority tribe <sup><math>M</math></sup>        | 1341     | 99    | 0.77        | 0.02  | 0.04 | 0.62 |
| Panel B: Property character                     | istics   |       |             |       |      |      |
| Walls good cond. <sup><math>R</math></sup>      | 2239     | 101   | 1.73        | 0.01  | 0.05 | 0.89 |
| Roof good cond. $\overset{\breve{R}}{C}$        | 2161     | 101   | 0.43        | -0.01 | 0.04 | 0.83 |
| Dist. city center <sup><math>M</math></sup>     | 2611     | 100   | 3.00        | 0.04  | 0.28 | 0.89 |
| Dist. state buildings <sup><math>M</math></sup> | 2611     | 100   | 0.77        | 0.15  | 0.12 | 0.21 |
| Dist. hospitals <sup><math>M</math></sup>       | 2611     | 100   | 1.17        | 0.03  | 0.17 | 0.88 |
| Dist. public schools <sup><math>M</math></sup>  | 2611     | 100   | 0.37        | 0.04  | 0.05 | 0.35 |

**Table A4: Balance Tests For Covariates Among Flier Recipients** 

Notes: This table reports a series of individual regressions of the main covariate of interest on the treatment indicator for polygons assigned to the chief collection treatment. We restrict the sample here to flier recipients, i.e. those households that had a collective action opportunity, and assess balance across tax collection treatments within this subset. Covariates include characteristics of property owners and properties. Note that we are unable to link household-level flier receipt to the households that were part in the 2016 tax campaign, and so we don't assess balance on those neighborhood-level characteristics. Panels A and B test balance for the randomization of the tax collection treatment (Chief v Gov). As usual, these regressions include cluster-robust standard errors and randomization stratum fixed effects. Superscripts denote the data source of the pre-treatment covariates. B denotes Baseline survey, M denotes Midline survey and R denotes Registration data. Note that for the Midline (M) variables, 44-48% of the 13,267 observations are missing. Subscript C is an indicator for inclusion as a control for estimation of treatment effects.

## A2 Appendices for First Stage Results



Figure A1: Effect of Chief (Local) Collection on Tax Compliance and Revenue

*Notes:* This figure shows the effect of local tax collection on tax compliance in the 101 collective action neighborhoods. The coefficients come from regressions of the outcome variable (tax compliance for the left panel and tax revenue for the right panel) on a treatment indicator and fixed effects for randomization strata, progressively adding time fixed effects (in yellow), house fixed effects (in blue) as well as restricting the sample to non-exempt properties (green). Standard errors are cluster robust at the neighborhood level and are the basis for the 95% confidence intervals presented.



#### Figure A2: Salience of Tax Collection by City Chiefs

*Notes:* This figure compares the proportion of respondents who recalled that the Chief (left panel) or the government (right panel) collected taxes across neighborhoods assigned to State or Chief collection. We differentiate in each case whether the household owner was present at the time of collection (dark blue bar) or not (light blue bar). P-values are based on cluster-robust covariance matrix estimation (where clusters are neighborhoods) and test for the difference in proportions between State and Chief neighborhoods via a regression of the outcome variable on a treatment indicator, including fixed effects for randomization strata.

## A3 Appendices for Main Results

#### A3.1 Robustness Checks

We show that our main results are robust to a wide variety of alternative specifications and additional tests. In Table A5, we add three additional sets of control variables to each of the primary outcomes we presented in Table 1. These include a range of prognostic pre-treatment covariates at the level of the polygon, house, and individual citizen. In Table A7, we repeat the main analysis using different randomization strata at a more fine-grained level which stratifies on the geographic location of neighborhoods. These strata could alternatively have been used due to the nature of the cross-randomization with other factors of the experimental design fully reported in Bergeron et al. (2023). Finally, we summarize the raw data on accountability demands targeted at both the chief and the state broken down by treatment (Table A8).

|                      | C                 | Bov meetin                                      | ıg                | Chief meeting                                  |                    | Either             |  |                    | Both  |                   |  |                   |
|----------------------|-------------------|---|-------------------|--|--------------------|--------------------|--|--------------------|---|-------------------|--|-------------------|
|                      | (1)               | (2)   | (3)               | (4)  | (5)                | (6)                | (7)  | (8)                | (9)   | (10)              | (11)   | (12)              |
| Chief tax collection | -0.001<br>(0.030) | $\begin{array}{c} 0.001 \\ (0.039) \end{array}$ | -0.004<br>(0.037) | $\begin{array}{c} 0.002\\ (0.031) \end{array}$ | $0.009 \\ (0.041)$ | $0.005 \\ (0.041)$ | $\begin{array}{c} 0.005\\ (0.032) \end{array}$ | $0.007 \\ (0.041)$ | $\begin{array}{c} 0.003 \\ (0.041) \end{array}$ | -0.004<br>(0.030) | $\begin{array}{c} 0.002\\ (0.038) \end{array}$ | -0.002<br>(0.038) |
| Control mean         | 0.169             | 0.169   | 0.169             | 0.171  | 0.171              | 0.171              | 0.180  | 0.180              | 0.180   | 0.161             | 0.161  | 0.161             |
| Observations         | 2160              | 1458  | 1397              | 2160   | 1458               | 1397               | 2160   | 1458               | 1397  | 2160              | 1458   | 1397              |
| Clusters             | 101               | 98  | 98                | 101  | 98                 | 98                 | 101  | 98                 | 98  | 101               | 98   | 98                |
| Stratum FE           | Yes               | Yes   | Yes               | Yes  | Yes                | Yes                | Yes  | Yes                | Yes   | Yes               | Yes  | Yes               |
| Controls             | Set II            | Set III   | Set IV            | Set II   | Set III            | Set IV             | Set II   | Set III            | Set IV  | Set II            | Set III  | Set IV            |

#### Table A5: Effects of chief tax collection on demand for citizen meetings: More controls

*Notes:* This table reports the effect of chief tax collection on demand for citizen meetings with three additional sets of control variables to each of the primary outcomes we presented in Table 1. Coefficients on *Chief tax collection* are OLS estimates with robust standard errors clustered at the polygon level, the unit of randomization and of analysis, and associated p-values (\*\*\*p < 0.01; \*\*p < 0.05; \*p < 0.1). *Chief Meeting* is the proportion of citizens requesting a meeting with the chief in a given polygon. Gov Meeting is the proportion of citizens requesting a meeting with the chief in a given polygon for equesting either a meeting with the chief or the provincial government. Both is the proportion of citizens in a given polygon experienced tax collection by the chief (1) or by the provincial government (0; control). Here we compare polygons that had a collective action opportunity (j = 101) and where either tax collection was done exclusively by the chief (j = 51) or by the provincial government (j = 50). *Stratum FE* refer to the stratum used for randomization which is a combination of geographic location of the neighborhood as well as previous tax compliance. *Set II* controls include Set I controls plus binary indicators for the property owner being employed, salaried and working for the government. *Set IV* controls include Set I controls plus age and gender of the property owner.

|                      | Gov meeting |              | Chief   | meeting       | Ei      | ther          | Both    |               |
|----------------------|-------------|--------------|---------|---------------|---------|---------------|---------|---------------|
|                      | (1)         | (2)          | (3)     | (4)           | (5)     | (6)           | (7)     | (8)           |
| Chief tax collection | -0.014      | -0.007       | -0.010  | -0.003        | -0.008  | -0.000        | -0.017  | -0.009        |
|                      | (0.029)     | (0.028)      | (0.030) | (0.029)       | (0.030) | (0.029)       | (0.029) | (0.028)       |
| Campaign Wave        |             | $-0.008^{*}$ |         | $-0.009^{**}$ |         | $-0.008^{**}$ |         | $-0.008^{**}$ |
|                      |             | (0.004)      |         | (0.004)       |         | (0.004)       |         | (0.004)       |
| Dist. letter box I   |             | -0.013       |         | -0.012        |         | -0.011        |         | -0.014        |
|                      |             | (0.026)      |         | (0.026)       |         | (0.027)       |         | (0.025)       |
| Dist. letter box II  |             | 0.018        |         | 0.012         |         | 0.012         |         | 0.019         |
|                      |             | (0.029)      |         | (0.029)       |         | (0.029)       |         | (0.029)       |
| House type           |             | $0.045^{*}$  |         | 0.059**       |         | $0.056^{**}$  |         | 0.048**       |
|                      |             | (0.025)      |         | (0.024)       |         | (0.025)       |         | (0.024)       |
| Revenue 2016         |             | -0.000       |         | -0.000        |         | -0.000        |         | -0.000        |
|                      |             | (0.000)      |         | (0.000)       |         | (0.000)       |         | (0.000)       |
| Participation 2016   |             | $-0.079^{*}$ |         | $-0.089^{**}$ |         | $-0.088^{**}$ |         | $-0.080^{*}$  |
| -                    |             | (0.044)      |         | (0.043)       |         | (0.044)       |         | (0.043)       |
| Control mean         | 0.169       | 0.169        | 0.171   | 0.171         | 0.180   | 0.180         | 0.161   | 0.161         |
| Observations         | 2631        | 2629         | 2631    | 2629          | 2631    | 2629          | 2631    | 2629          |
| Clusters             | 101         | 101          | 101     | 101           | 101     | 101           | 101     | 101           |
| Stratum FE           | Yes         | Yes          | Yes     | Yes           | Yes     | Yes           | Yes     | Yes           |
| Controls             | No          | Set I        | No      | Set I         | No      | Set I         | No      | Set I         |

#### Table A6: Effects of chief tax collection on demand for citizen meetings: All covariates

\*\*\*p < 0.01; \*\*p < 0.05; \*p < 0.1. Coefficients on *Chief tax collection* are OLS estimates with robust standard errors clustered at the polygon level, the unit of randomization and of analysis. *Chief Meeting* is the proportion of citizens requesting a meeting with the chief in a given polygon. *Gov Meeting* is the proportion of citizens requesting a meeting with the chief or the provincial government. *Both* is the proportion of citizens in a given polygon requesting both a meeting with the chief and with the provincial government. *Both* is the proportion of citizens in a given polygon requesting both a meeting with the chief and with the provincial government. *Chief tax collection* is a binary indicator for whether the polygon experienced tax collection by the chief (1) or by the provincial government (0; control). Here we compare polygons that had a collective action opportunity (j = 101) and where either tax collection was done exclusively by the chief (j = 51) or by the provincial government. *Given the stratum used* for randomization which is a combination of geographic location of the neighborhood as well as previous tax compliance. *Set I* controls include house type, wave of collective action campaign, distances to letter boxes and polygon-level averages of participation and per capita tax revenue in the 2016 campaign.

|                      | Gov meeting       |                  | Chief meeting     |                  | Either            |                  | Both              |                  |
|----------------------|-------------------|------------------|-------------------|------------------|-------------------|------------------|-------------------|------------------|
|                      | (1)               | (2)              | (3)               | (4)              | (5)               | (6)              | (7)               | (8)              |
| Chief tax collection | -0.007<br>(0.028) | 0.003<br>(0.026) | -0.003<br>(0.029) | 0.007<br>(0.027) | -0.001<br>(0.029) | 0.010<br>(0.027) | -0.009<br>(0.028) | 0.001<br>(0.026) |
| Control mean         | 0.169             | 0.169            | 0.171             | 0.171            | 0.180             | 0.180            | 0.161             | 0.161            |
| Observations         | 2631              | 2629             | 2631              | 2629             | 2631              | 2629             | 2631              | 2629             |
| Clusters             | 101               | 101              | 101               | 101              | 101               | 101              | 101               | 101              |
| Stratum FE           | Yes               | Yes              | Yes               | Yes              | Yes               | Yes              | Yes               | Yes              |
| Controls             | No                | Set I            |

Table A7: Effects of chief tax collection on demand for citizen meetings: Alternative strata

*Notes:* This table reports the effect of chief tax collection on the demand for citizen meetings using different randomization strata at a more fine-grained level which stratifies on the geographic location of neighborhoods. Coefficients on *Chief tax collection* are OLS estimates with robust standard errors clustered at the polygon level, the unit of randomization and of analysis, and associated p-values (\*\*\*p < 0.01; \*\*p < 0.05; \*p < 0.1). *Chief Meeting* is the proportion of citizens requesting a meeting with the chief in a given polygon. Gov Meeting is the proportion of citizens requesting a meeting with the chief in a given polygon requesting either a meeting with the chief or the provincial government in a given polygon. Either is the proportion of citizens in a given polygon requesting both a meeting with the chief at meeting with the chief at a collection is a binary indicator for whether the polygon experienced tax collection by the chief (1) or by the provincial government (0; control). Here we compare polygons that had a collective action opportunity (j = 101) and where either tax collection was done exclusively by the chief (j = 51) or by the provincial government (j = 50). Stratum FE refers to the alternative randomization stratum of geographic location of the neighborhood. Set I controls include house type, wave of collective action campaign, distances to letter boxes and polygon-level averages of participation and per capita tax revenue in the 2016 campaign.

| Table A8: Absolute and | relative (row) | frequencies of | of form | submissions | by treatment | t groups |
|------------------------|----------------|----------------|---------|-------------|--------------|----------|
|------------------------|----------------|----------------|---------|-------------|--------------|----------|

|              | Chief meeting |             |           | Government m |             |           |
|--------------|---------------|-------------|-----------|--------------|-------------|-----------|
| Treatment    | No            | Yes         | Row total | No           | Yes         | Row total |
| Central      | 1089 (82.9%)  | 225 (17.1%) | 1314      | 1092 (83.1%) | 222 (16.9%) | 1314      |
| Local        | 1096 (83.2%)  | 221 (16.8%) | 1317      | 1104 (83.8%) | 213 (16.2%) | 1317      |
| Column total | 2185 (83.0%)  | 446 (17.0%) | 2631      | 2196 (83.5%) | 435 (16.5%) | 2631      |

*Note:* This table summarizes the raw data on accountability demands targeted at both the chief and the state, broken down by treatment.

#### A3.2 Additional Analyses

Here we conduct several additional analyses to bolster our findings. First, we explore the effect of chief tax collection on survey-based measures of demand for accountability, that is, on the supply of civic political participation in Table A9. We further estimate the revenue elasticity of participation, i.e., the increase in form submission participation for a 1 Congolese Franc increase in tax revenue, displayed in Figure A1.

|                      | Communi | ity meeting | CSO n   | neeting | Political party meeting |         |  |
|----------------------|---------|-------------|---------|---------|-------------------------|---------|--|
|                      | (1) (2) |             | (3)     | (4)     | (5)                     | (6)     |  |
| Chief tax collection | -0.032  | -0.031      | -0.021  | -0.022  | -0.015                  | -0.001  |  |
|                      | (0.039) | (0.036)     | (0.038) | (0.036) | (0.034)                 | (0.035) |  |
| Control mean         | 0.442   | 0.442       | 0.346   | 0.346   | 0.304                   | 0.304   |  |
| Observations         | 963     | 962         | 963     | 962     | 963                     | 962     |  |
| Clusters             | 101     | 101         | 101     | 101     | 101                     | 101     |  |
| Stratum FE           | Yes     | Yes         | Yes     | Yes     | Yes                     | Yes     |  |
| Controls             | No      | Set I       | No      | Set I   | No                      | Set I   |  |
| Sample               | C + L   | C + L       | C + L   | C + L   | C + L                   | C + L   |  |

#### Table A9: Effect of chief tax collection on civic participation

*Notes:* This table reports the effect of chief tax collection on the supply of civic political participation. Coefficients on *Chief tax collection* are OLS estimates with robust standard errors clustered at the polygon level, the unit of randomization and of analysis, and associated p-values (\*\*\*p < 0.01; \*\*p < 0.05; \*p < 0.1). Outcomes come from the Endline I survey. *Community meeting* is an indicator that is 1 if the respondent said they had attended a community meeting in the past year. *CSO meeting* is an indicator that is 1 if the respondent said they had attended a community meeting in the past year. *CSO meeting* is an indicator that is 1 if the respondent said they had attended a meeting by a civic association in the past year. *Political party meeting* is an indicator that is 1 if the respondent said they had attended a meeting by a political party in the past year. *Chief tax collection* is a binary indicator for whether the polygon experienced tax collection by the chief (1) or by the provincial government (0; control). Here we compare polygons that had a collective action opportunity (j = 101) and where either tax collection was done exclusively by the chief (j = 51) or by the provincial government (j = 50). We restrict the sample here further to exclude outliers on the capacity questions as well as villas. *Stratum FE* refer to the stratum used for randomization which is a combination of geographic location of the neighborhood as well as previous tax compliance. *Set I* controls include house type, wave of collective action campaign, distances to letter boxes and polygon-level averages of participation and per capita tax revenue in 2016.

We additionally show that chief tax collection resulted in more demand for citizen meetings when the household's payment propensity was higher but the effect was equivalent for accountability demands targeting chiefs and the state (Table A10). In other words, this is consistent with the idea that having a higher payment propensity is associated with more accountability demand in general but that chief collection does not differentially increase chief accountability at the expense of state accountability.

We measure payment propensity via a categorical variable that represents the predicted tax payment propensity of each compound, with higher values representing higher payment propensities (ease of payment). This variable is used in Balán et al. (2022) to show that state collectors who were advised by city chiefs were more likely to visit and collect taxes from households recommended by chiefs, and emerged from the observation that chiefs must have private information

Figure A3: Relationship Between Tax Revenue and Form Submission in State and Chief Neighborhoods



*Notes:* This figure shows the relationship between tax revenues and engagement (form submission) in Chief (left Panel) and State neighborhoods (right panel) in the 101 collective action neighborhoods. For each set of neighborhoods, we plot the neighborhood-level property tax revenue (in Congolese Francs) against the neighborhood-level fraction of form submissions for the government (for State neighborhoods) or for the chief (for Chief neighborhoods). We exclude two outlier neighborhoods that exhibited revenue greater than 1,000FC. Shape sizes are proportional to neighborhood sizes. b is the revenue elasticity of participation, i.e., the increase in participation for a 1FC increase in tax revenue.

that is useful for targeting visits during the tax campaign. Balán et al. (2022) conclude the following: "Among those visited after registration, a one point increase in the chief's ability-to-pay (willingness-to-pay) ranking is associated with an 8.3 (5.8) percentage point increase in the probability of payment" (p. 784). However, these recommendations were made only in an additional treatment group of neighborhoods where households were visited by both state agents and the chief. In order to facilitate this analysis in *Chief* and *State* neighborhoods, we use a prediction approach based on propensity scores where we predict properties that chiefs would have recommended, based on a set of household characteristics such as the property owner's age, gender, employment status, salary, government job status, and ethnic group. These predictions are then transformed into a 1-3 rank.

|                      | Gov m         | neeting       | Chief r       | neeting       | Either        |               | Во            | oth           |
|----------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
|                      | (1)           | (2)           | (3)           | (4)           | (5)           | (6)           | (7)           | (8)           |
| Chief tax collection | $-0.123^{**}$ | $-0.090^{*}$  | $-0.106^{**}$ | $-0.078^{*}$  | $-0.112^{**}$ | $-0.081^{*}$  | $-0.116^{**}$ | $-0.087^{*}$  |
|                      | (0.051)       | (0.046)       | (0.052)       | (0.046)       | (0.053)       | (0.047)       | (0.051)       | (0.045)       |
| Ease of pay          | $-0.070^{**}$ | $-0.063^{**}$ | $-0.088^{**}$ | $-0.081^{**}$ | $-0.080^{**}$ | $-0.072^{**}$ | $-0.078^{**}$ | $-0.072^{**}$ |
|                      | (0.033)       | (0.029)       | (0.037)       | (0.033)       | (0.036)       | (0.031)       | (0.036)       | (0.033)       |
| Chief X Ease of pay  | $0.104^{**}$  | $0.093^{*}$   | $0.097^{**}$  | $0.087^{*}$   | $0.100^{**}$  | $0.088^{*}$   | $0.101^{**}$  | $0.092^{*}$   |
|                      | (0.047)       | (0.047)       | (0.048)       | (0.048)       | (0.048)       | (0.048)       | (0.048)       | (0.048)       |
| Control mean         | 0.169         | 0.169         | 0.171         | 0.171         | 0.180         | 0.180         | 0.161         | 0.161         |
| Observations         | 1017          | 1017          | 1017          | 1017          | 1017          | 1017          | 1017          | 1017          |
| Clusters             | 78            | 78            | 78            | 78            | 78            | 78            | 78            | 78            |
| Stratum FE           | Yes           |
| Controls             | No            | Set I         |

#### Table A10: Effects of chief tax collection: Payment propensity

*Notes:* This table reports the effects of chief tax collection by payment propensity. Coefficients on *Chief tax collection* are OLS estimates with robust standard errors clustered at the polygon level, the unit of randomization and of analysis. *Chief Meeting* is the proportion of citizens requesting a meeting with the chief in a given polygon, and associated p-values (\*\*\*p < 0.01; \*\*p < 0.05; \*p < 0.05, \*p < 0.01). *Gov Meeting* is the proportion of citizens requesting a meeting with the chief in a given polygon, either is the proportion of citizens in a given polygon requesting either a meeting with the chief and with the provincial government. *Both* is the proportion of citizens in a given polygon requesting either a meeting with the chief at *x collection* is a binary indicator for whether the polygon experienced tax collection by the chief (1) or by the provincial government (0; control). *Ease of payment* is a categorical variable that represents the predicted tax payment propensity of each compound, with higher values representing higher payment propensities. Here we compare polygons that had a collective action opportunity (j = 101) and where either tax collection was done exclusively by the chief (j = 51) or by the provincial government (j = 50). *Stratum FE* refer to the stratum used for randomization which is a combination of geographic location of the neighborhood as well as previous tax compliance. *Set I* controls include house type, wave of collective action campaign, distances to letter boxes and polygon-level averages of participation and per capita tax revenue 2016.

### A3.3 Mechanisms

Here, we explore the empirical implications of our theorized hypotheses. First, we show that respondents overwhelmingly — and correctly — recalled that tax payments are remitted ultimately to the provincial government, and not to the chiefs (Figure A4). The treatments also did not change which actors citizens make demands on (Figure A5) or hold responsible for public goods provision (Figure A6). Finally, we show that chief tax collection did not alter citizens' expectation of benefits from or perceptions of capacity of the government or the chief (Table A11).



#### Figure A4: Recall of tax payments remitted to which actor

*Notes:* This figure shows the relative frequency of answers to the endline question: "Let's discuss the property tax. To whom is the tax remitted?" We collected data from 1,217 respondents at this endline survey.



#### **Figure A5: Number of Demands on Local Actors**

*Notes:* This figure shows the average number of times a demand has been made on the respective actor. We measured this at baseline and endline with the question: "In the past 12 months, how many times has a member of your household gone to each of the following people or places to discuss a problem or make a demand?" We collected data from 2,183 respondents at baseline and from 1,217 respondents at endline. Confidence intervals are based on clusterrobust standard errors.



#### Figure A6: Responsibility for Local Public Goods Provision

*Notes:* We plot the relative frequency of answers to the baseline and endline questions: "I am going to list some services/infrastructure many communities have. Tell me who you think should be primarily responsible for providing each one in our community. This does not need to be the current provider of these services/infrastructure." We collected data from 2,183 respondents at baseline and from 1,552 respondents at endline.

|                      | Exp              | Expectation of benefits from |                  |                   |                   | Perceptions of capacity about |                   |                   |  |
|----------------------|------------------|------------------------------|------------------|-------------------|-------------------|-------------------------------|-------------------|-------------------|--|
|                      | Gov              | Gov                          | Chief            | Chief             | Gov               | Gov                           | Chief             | Chief             |  |
| Chief tax collection | 0.029<br>(0.117) | 0.074<br>(0.120)             | 0.013<br>(0.102) | -0.034<br>(0.103) | -0.043<br>(0.055) | -0.050<br>(0.056)             | -0.079<br>(0.082) | -0.113<br>(0.088) |  |
| Control mean         | -0.008           | -0.008                       | 0.001            | 0.001             | 0.049             | 0.049                         | 0.038             | 0.038             |  |
| Observations         | 1236             | 1236                         | 1216             | 1216              | 1157              | 1157                          | 1155              | 1155              |  |
| Clusters             | 101              | 101                          | 101              | 101               | 101               | 101                           | 101               | 101               |  |
| Stratum FE           | Yes              | Yes                          | Yes              | Yes               | Yes               | Yes                           | Yes               | Yes               |  |
| Controls             | No               | Set I                        | No               | Set I             | No                | Set I                         | No                | Set I             |  |

Table A11: Effects of chief tax collection on expectations about chiefs and government

*Notes:* This table reports the effect of chief tax collection on citizensâ expectation of benefits from or perceptions of capacity of the government or the chief. Coefficients on *Chief tax collection* are OLS estimates with robust standard errors clustered at the polygon level, the unit of randomization and of analysis, and associated p-values (\*\*\*p < 0.01; \*\*p < 0.05; \*p < 0.1). *Chief Meeting* is the proportion of citizens requesting a meeting with the chief in a given polygon. Outcomes come from the Endline II survey. All outcomes have been z-transformed such that coefficients represent standardized mean differences. *Expectation of benefits* measures agreement (5 = strongly agree) with the statement that paying taxes entitles citizens to services by the chief and by the government, respectively. *Perceptions of capacity* measures citizens beliefs about how long it will take the chief or the government to fix a damaged road in days. *Chief tax collection* is a binary indicator for whether the polygon experienced tax collection by the chief (1) or by the provincial government (0; control). Here we compare polygons that had a collective action opportunity (j = 101) and where either tax collection was done exclusively by the chief (j = 51) or by the provincial government (j = 50). We restrict the sample here further to exclude outliers on the capacity questions as well as villas. *Stratum FE* refer to the stratum used for randomization which is a combination of geographic location of the neighborhood as well as previous tax compliance. *Set I* controls include house type, wave of collective action campaign, distances to letter boxes and polygon-level averages of participation and per capita tax revenue in 2016.

## A4 Appendices for Alternative Explanations

#### A4.1 Meetings and Genuine Accountability

Here we document that the audit meetings were seen as a meaningful opportunity to exert bottomup pressures and generate genuine accountability for local public goods provision in the context of the anti-poverty program. First, in Table A12, we report results of quantitative analysis of text obtained from oral comments made by citizens during the meetings. We summarize seeded-LDA topic models and show the 10 most common words for 5 different topics of comments. We also show that form submission was a costly activity that citizens took seriously as ways to request actual meetings. Indeed, form submission is highly correlated with actual meeting attendance (Table A13).

Second, we assemble additional evidence from quantitative text analyses on the underlying mechanisms of our main results. We do this by analyzing additional text documents obtained at the actual citizen meetings. In Figure A8, we report on the main post-processed topics and comments that citizens made during the meetings and examine their frequency both in the aggregate as well as differentiated by treatment group. Figure A9 takes the actual original oral comments as text corpus and documents the 25 most common words spoken during the meetings, again both in the aggregate as well as differentiated by treatment group.

| Topic 1   | Topic 2   | Topic 3   | Topic 4   | Topic 5   |
|---|---|---|---|---|
| argent<br>aide<br>aussi<br>tickets<br>avoir<br>paurquoi<br>tout | injustice<br>chef<br>aide<br>pourquoi<br>gens<br>distribution | comment<br>reunion<br>pauvrete<br>contre<br>venu<br>lutte<br>socico | recu<br>pourquoi<br>argent<br>projet<br>prix<br>autres<br>chose | recu<br>rien<br>connais<br>oui<br>lotterie<br>argent<br>tickets |
| discrimination<br>monde<br>donne                                | tous<br>gagne<br>bon  | combattre<br>but<br>bien  | quelque<br>comment<br>aussi                                     | ticket<br>vu<br>corruption                                      |

**Table A12: LDA Topic Model for Comments in Citizen Meetings** 

*Notes:* This table shows the 10 most common words of 5 topics of comments in citizen meetings. We post-process the text data from the comments made in citizen meetings into a corpus of French language comments, clean strings and remove common stopwords in French. We plot this for all citizens who attended a citizen meeting and made a comment. Based on this corpus, we perform semi-supervised Latent Dirichlet allocation (seeded-LDA) and arrive at list of the 10 most common words of 5 topics of comments shown here.

|                      | Ci                       | tizen meeti              | ng attendar              | ice                      |
|----------------------|--------------------------|--------------------------|--------------------------|--------------------------|
|                      | (1)                      | (2)                      | (3)                      | (4)                      |
| Submitted form gov   | $0.090^{***}$<br>(0.014) | $0.086^{***}$<br>(0.014) |                          |                          |
| Submitted form chief |                          |                          | $0.090^{***}$<br>(0.014) | $0.086^{***}$<br>(0.014) |
| Control mean         | 0.010                    | 0.010                    | 0.010                    | 0.010                    |
| Observations         | 2631                     | 2629                     | 2631                     | 2629                     |
| Stratum FE           | Yes                      | Yes                      | Yes                      | Yes                      |
| Controls             | No                       | Set I                    | No                       | Set I                    |

#### Table A13: Meeting attendance rates by form submission

*Notes:* This table shows the relationship between form submission and actual meeting attendance. Coefficients on *Submitted form* are OLS estimates with HC1 standard errors for individual form submission, the unit of analysis, and associated p-values (\*\*\*p < 0.01; \*\*p < 0.05; \*p < 0.1). *Meeting attendance* is 1 if a citizen attended the meeting and 0 otherwise. *Submitted form gov* is a binary indicator for whether the citizen submitted a government meeting request form (1). *Submitted form chief* is a binary indicator for whether the citizen submitted a chief meeting request form (1). *Stratum FE* refer to the stratum used for randomization which is a combination of geographic location of the neighborhood as well as previous tax compliance. The sample here is all citizens that had an opportunity to submit meeting request forms in govt. or chief polygons. *Set I* controls include house type, wave of collective action campaign, distances to letter boxes and polygon-level averages of participation and per capita tax revenue 2016.



#### **Figure A7: Meeting Request Forms Comments**

*Notes:* This figure shows the distribution of meeting request forme comments made by citizens. In the top panel, we plot the frequency of hand-coded comment categories that citizens made at the aggregate level. Out of 1,658 forms submitted in all neighborhoods, 289 made additional comments on the form which we plot here as a fraction of the total number of forms with valid comments. In the bottom panel, we plot this same distribution separately for citizens that live in *Gov* or *Chief* neighborhoods as a fraction of total number of forms with valid comments from citizens in *Gov* (N = 110) and *Chief* (N = 48) neighborhoods, respectively.





*Notes:* This figure shows the main post-processed topics and comments that citizens made during the meetings. In the top panel, we plot the frequency of hand-coded comment categories that citizens made in citizen meetings at the aggregate level. Here, we plot the frequency of these comment categories relative to the total number of 140 comments made during the meeting. In the bottom panel, we plot this same distribution separately for citizens that live in *Gov* or *Chief* neighborhoods as a fraction of total number of comments during meetings from citizens in *Gov* (N = 104) and *Chief* (N = 36) neighborhoods, respectively.

#### Figure A9: Most common words in citizen meetings



25 most spoken words in the meetings

*Notes:* This figure takes the original oral comments as text corpus and shows the 25 most common words spoken during the meetings. In the top panel, we plot the frequency of the most common words spoken during citizen meetings at the aggregate level. Here, we plot the frequency of words relative to the total number of words spoken during the meeting. In the bottom panel, we plot this same distribution separately for citizens that live in *Gov* or *Chief* neighborhoods as a fraction of total number of words during meetings from citizens in *Gov* and *Chief* neighborhoods, respectively.

#### A4.2 Tax Collection Salience

In this section, we probe the salience of the tax campaign in several ways. First, we look at heterogeneous treatment effects by receipt of a tax prime, and document that the treatment effect does not vary with whether respondents have been primed to think of themselves as taxpayers or not (Table A14). We also document that treatment effects did not vary with the timing of the tax campaign (Table A15).

|                      | Gov meeting |         | Chief r | Chief meeting |         | Either  |         | oth     |
|----------------------|-------------|---------|---------|---------------|---------|---------|---------|---------|
|                      | (1)         | (2)     | (3)     | (4)           | (5)     | (6)     | (7)     | (8)     |
| Chief tax collection | -0.021      | -0.014  | -0.025  | -0.017        | -0.021  | -0.014  | -0.025  | -0.018  |
|                      | (0.034)     | (0.033) | (0.035) | (0.033)       | (0.035) | (0.034) | (0.034) | (0.033) |
| Tax prime            | -0.013      | -0.013  | -0.024  | -0.024        | -0.020  | -0.020  | -0.018  | -0.018  |
|                      | (0.017)     | (0.017) | (0.017) | (0.017)       | (0.018) | (0.017) | (0.016) | (0.016) |
| Chief X Tax prime    | 0.015       | 0.014   | 0.029   | 0.028         | 0.027   | 0.026   | 0.017   | 0.016   |
|                      | (0.027)     | (0.027) | (0.027) | (0.027)       | (0.029) | (0.028) | (0.026) | (0.026) |
| Control mean         | 0.171       | 0.171   | 0.169   | 0.169         | 0.180   | 0.180   | 0.161   | 0.161   |
| Observations         | 2631        | 2629    | 2631    | 2629          | 2631    | 2629    | 2631    | 2629    |
| Clusters             | 101         | 101     | 101     | 101           | 101     | 101     | 101     | 101     |
| Stratum FE           | Yes         | Yes     | Yes     | Yes           | Yes     | Yes     | Yes     | Yes     |
| Controls             | No          | Set I   | No      | Set I         | No      | Set I   | No      | Set I   |

Table A14: Effects of chief tax collection: Tax prime

*Notes:* This table reports the heterogeneous treatment effects of chief tax collection by receipt of a tax prime. Coefficients on *Chief tax collection* are OLS estimates with robust standard errors clustered at the polygon level, the unit of randomization and of analysis, and associated p-values (\*\*\*p < 0.01; \*\*p < 0.05; \*p < 0.1). *Chief Meeting* is the proportion of citizens requesting a meeting with the chief in a given polygon. Gov Meeting is the proportion of citizens requesting a meeting with the chief of the provincial government in a given polygon. *Either* is the proportion of citizens in a given polygon requesting both a meeting with the chief and with the provincial government. *Both* is the proportion of citizens in a given polygon requesting both a meeting with the chief and with the provincial government. *Both* is the proportion of citizens in a given polygon requesting both a meeting with the chief and with the provincial government (0; control). *Tax prime* is a cross-randomized treatment that indicates whether the respondent had been addressed as a taxpayer (1) on the submission forms or as a citizen (0). Here we compare polygons that had a collective action opportunity (j = 101) and where either at collection was done exclusively by the chief (j = 51) or by the provincial government (j = 50). *Stratum FE* refer to the stratum used for randomization which is a combination of geographic location of the neighborhood as well as previous tax compliance. *Set 1* controls include house type, wave of collective action campaign, distances to letter boxes and polygon-level averages of participation and per capita tax revenue 2016.

|                         | Gov meeting       |                   | Chief meeting     |                         | Either            |                         | Both              |                   |
|-------------------------|-------------------|-------------------|-------------------|-------------------------|-------------------|-------------------------|-------------------|-------------------|
|                         | (1)               | (2)               | (3)               | (4)                     | (5)               | (6)                     | (7)               | (8)               |
| Month of Tax Collection | -0.008<br>(0.005) | -0.008<br>(0.006) | -0.009<br>(0.006) | $-0.010^{*}$<br>(0.006) | -0.009<br>(0.006) | $-0.010^{*}$<br>(0.006) | -0.008<br>(0.005) | -0.008<br>(0.006) |
| Control mean            | 0.141             | 0.141             | 0.160             | 0.160                   | 0.163             | 0.163                   | 0.137             | 0.137             |
| Observations            | 2631              | 2629              | 2631              | 2629                    | 2631              | 2629                    | 2631              | 2629              |
| Clusters                | 101               | 101               | 101               | 101                     | 101               | 101                     | 101               | 101               |
| Stratum FE              | Yes               | Yes               | Yes               | Yes                     | Yes               | Yes                     | Yes               | Yes               |
| Controls                | No                | Set I             | No                | Set I                   | No                | Set I                   | No                | Set I             |

 Table A15: Effects of tax campaign timing on demand for citizen meetings

*Notes:* This table reports the effect of the timing of the tax campaign on the demand for citizen meetings. Coefficients on *Chief tax collection* are OLS estimates with robust standard errors clustered at the polygon level, the unit of randomization and of analysis, and associated p-values (\*\*\*p < 0.01; \*\*p < 0.05; \*p < 0.1). *Chief Meeting* is the proportion of citizens requesting a meeting with the chief in a given polygon. *Gov Meeting* is the proportion of citizens requesting a meeting with the chief in a given polygon requesting either a meeting with the chief in a given polygon requesting either a meeting with the chief in a given polygon requesting either a meeting with the chief of the provincial government. *Both* is the proportion of citizens in a given polygon requesting both a meeting with the chief and with the provincial government. *Chief tax collection* is a binary indicator for whether the polygon experienced tax collection by the chief (1) or by the provincial government (0; control). Here we compare polygons that had a collective action opportunity (j = 101) and where either tax collection was done exclusively by the chief (j = 51) or by the provincial government (j = 50). *Stratum FE* refer to the stratum used for randomization which is a combination of geographic location of the neighborhood as well as previous tax compliance. *Set I* controls include house type, wave of collective action campaign.

### A4.3 Chief Coercive Power and Co-optation

Here, we document that the chief collection treatment did not increase citizens' fears of the coercive power of the chief or their co-optation by the state (Table A16).

|  | Chief co                          | optation                             | Fear of co                         | percion chief                         | Fear of co                        | percion gov                          |
|--|-----------------------------------|--------------------------------------|------------------------------------|---------------------------------------|-----------------------------------|--------------------------------------|
|  | (1) (2)                           |                                      | (3)                                | (4)                                   | (5)                               | (6)                                  |
| Chief tax collection   | -0.068<br>(0.073)                 | -0.042<br>(0.074)                    | $0.034 \\ (0.121)$                 | 0.031<br>(0.123)                      | -0.035<br>(0.128)                 | -0.049<br>(0.129)                    |
| Control mean<br>Observations<br>Clusters<br>Stratum FE<br>Controls<br>Sample | 0.032<br>1221<br>101<br>Yes<br>No | 0.032<br>1221<br>101<br>Yes<br>Set I | -0.016<br>1181<br>101<br>Yes<br>No | -0.016<br>1181<br>101<br>Yes<br>Set I | 0.023<br>1188<br>101<br>Yes<br>No | 0.023<br>1188<br>101<br>Yes<br>Set I |
| Sample   | C + L                             | C + L                                | C + L                              | C + L                                 | C + L                             | C + L                                |

Table A16: Effects of chief tax collection on fear of coercion and chief cooptation

*Notes:* This table reports the effect of chief tax collection on citizensâ fears of the coercive power of the chief or their co-optation by the state. Coefficients on *Chief tax collection* are OLS estimates with robust standard errors clustered at the polygon level, the unit of randomization and of analysis, and associated p-values (\*\*\*p < 0.01; \*\*p < 0.05; \*p < 0.1). *Chief Meeting* is the proportion of citizens requesting a meeting with the chief in a given polygon. Outcomes come from the Endline II survey. Outcomes come from the Endline II survey and have been z-transformed such that coefficients represent standardized mean differences. *Chief cooptation* measures citizens' perceptions of whether a project undertaken in the neighborhood would be implemented according to the will of the people or that of the government. *Fear of coercion* measures citizens nervousness about making a comment during a citizen meeting with either the chief or the government (*Chief tax collection* is a binary indicator for whether the polygon experienced tax collection by the chief (1) or by the provincial government (0; control). Here we compare polygons that had a collective action opportunity (j = 101) and where either tax collection was done exclusively by the chief (j = 51) or by the provincial government (j = 50). We restrict the sample here further to exclude compounds classified as villas. *Stratum FE* refer to the stratum used for randomization which is a combination of geographic location of the neighborhood as well as previous tax compliance. *Set I* controls include house type, wave of collective action campaign, distances to letter boxes and polygon-level averages of participation and per capita tax revenue in 2016.

### A4.4 Chief Tax Collection Targeting

We show in this section that chief tax collection was not linked to ethnic targeting. First, chief tax collection did not increase the salience of ethnicity in the city, neither the perceived closeness to one's own tribe nor closeness to another tribe (Table A17). Second, treatment effects did not vary by association with the main tribe (Table A18).

|                      | Closeness | to own tribe | Closeness | to another tribe |
|----------------------|-----------|--------------|-----------|------------------|
|                      | (1)       | (2)          | (3)       | (4)              |
| Chief tax collection | 0.010     | -0.004       | -0.028    | -0.032           |
|                      | (0.115)   | (0.119)      | (0.093)   | (0.096)          |
| Control mean         | 3.617     | 3.617        | 3.563     | 3.563            |
| Observations         | 949       | 948          | 952       | 951              |
| Clusters             | 101       | 101          | 101       | 101              |
| Stratum FE           | Yes       | Yes          | Yes       | Yes              |
| Controls             | No        | Set I        | No        | Set I            |
| Sample               | C + L     | C + L        | C + L     | C + L            |

#### Table A17: Effects of chief tax collection on ethnic salience

*Notes:* This table reports the effect of chief tax collection on ethnic salience, i.e., closeness to one's own tribe or another's tribe. Coefficients on *Chief tax collection* are OLS estimates with robust standard errors clustered at the polygon level, the unit of randomization and of analysis, and associated p-values (\*\*\*p < 0.01; \*\*p < 0.05; \*p < 0.1). *Closeness to own tribe* ranges 0-5 and measures how close a person feels to people on their avenue from the same tribe. *Closeness to different tribe* ranges 0-5 and measures how close a person feels to people on their avenue from the same tribe. *Closeness to different tribe* ranges 0-5 and measures how close a person feels to people on their avenue from another tribe. Outcome variables come from Endline I. *Chief tax collection* is a binary indicator for whether the polygon experienced tax collection by the chief (1) or by the provincial government (0; control). Here we compare polygons that had a collective action opportunity (j = 101) and where either tax collection was done exclusively by the chief (j = 51) or by the provincial government (j = 50). *Stratum FE* refer to the stratum used for randomization which is a combination of geographic location of the neighborhood as well as previous tax compliance. *Set I* controls include house type, wave of collective action campaign, distances to letter boxes and polygon-level averages of participation and per capita tax revenue in 2016.

|                      | Gov n   | Gov meeting |         | neeting | Eit     | her     | Во      | oth     |
|----------------------|---------|-------------|---------|---------|---------|---------|---------|---------|
|                      | (1)     | (2)         | (3)     | (4)     | (5)     | (6)     | (7)     | (8)     |
| Chief tax collection | -0.022  | 0.003       | -0.046  | -0.019  | -0.039  | -0.011  | -0.029  | -0.005  |
|                      | (0.073) | (0.074)     | (0.072) | (0.073) | (0.072) | (0.073) | (0.073) | (0.073) |
| Main tribe           | -0.019  | -0.017      | -0.023  | -0.021  | -0.022  | -0.021  | -0.019  | -0.018  |
|                      | (0.043) | (0.045)     | (0.043) | (0.047) | (0.041) | (0.045) | (0.043) | (0.046) |
| Chief X Main tribe   | -0.000  | -0.007      | 0.040   | 0.033   | 0.025   | 0.017   | 0.014   | 0.009   |
|                      | (0.065) | (0.064)     | (0.065) | (0.065) | (0.065) | (0.064) | (0.065) | (0.064) |
| Control mean         | 0.169   | 0.169       | 0.171   | 0.171   | 0.180   | 0.180   | 0.161   | 0.161   |
| Observations         | 1339    | 1339        | 1339    | 1339    | 1339    | 1339    | 1339    | 1339    |
| Clusters             | 98      | 98          | 98      | 98      | 98      | 98      | 98      | 98      |
| Stratum FE           | Yes     | Yes         | Yes     | Yes     | Yes     | Yes     | Yes     | Yes     |
| Controls             | No      | Set I       | No      | Set I   | No      | Set I   | No      | Set I   |

Table A18: Effects of chief tax collection: Main tribe

*Notes:* This table reports the effect of chief tax collection by association with the main tribe. Coefficients on *Chief tax collection* are OLS estimates with robust standard errors clustered at the polygon level, the unit of randomization and of analysis, and associated p-values (\*\*\*p < 0.01; \*\*p < 0.05; \*p < 0.1). *Chief Meeting* is the proportion of citizens requesting a meeting with the chief in a given polygon. Gov Meeting is the proportion of citizens requesting a meeting with the provincial government in a given polygon. *Either* is the proportion of citizens in a given polygon requesting either a meeting with the chief or the provincial government. *Both* is the proportion of citizens in a given polygon requesting both a meeting with the chief and with the provincial government. *Both* is the proportion of citizens in a given polygon requesting both a meeting with the chief and with the provincial government. *Chief tax collection* is a binary indicator for whether the polygon experienced tax collection by the chief (1) or by the provincial government (0; control). *Main tribe* indicates whether the respondent identifies with the main tribe or not. Here we compare polygons that had a collective action opportunity (j = 101) and where either tax collection was done exclusively by the chief (j = 51) or by the provincial government (j = 50). *Stratum FE* refer to the stratum used for randomization which is a combination of geographic location of the neighborhood as well as previous tax compliance. *Set I* controls include house type, wave of collective action campaign, distances to letter baxes and polygon-level averages of participation and per capita tax revenue in 2016.

## A5 Exploratory Heterogeneous Effects

We explore further heterogeneous treatment effects that were not pre-registered in the pre-analysis plan but that nevertheless merit closer investigation. We show that treatment effects do not vary with respondent gender (Table A19).

|                      | Gov m   | Gov meeting |         | Chief meeting |         | Either  |         | Both    |  |
|----------------------|---------|-------------|---------|---------------|---------|---------|---------|---------|--|
|                      | (1)     | (2)         | (3)     | (4)           | (5)     | (6)     | (7)     | (8)     |  |
| Chief tax collection | -0.021  | -0.006      | -0.014  | 0.001         | -0.019  | -0.004  | -0.016  | -0.001  |  |
|                      | (0.051) | (0.048)     | (0.052) | (0.049)       | (0.053) | (0.050) | (0.051) | (0.048) |  |
| Woman                | 0.030   | 0.026       | 0.012   | 0.009         | 0.025   | 0.022   | 0.018   | 0.013   |  |
|                      | (0.034) | (0.031)     | (0.038) | (0.035)       | (0.037) | (0.035) | (0.035) | (0.032) |  |
| Chief X Woman        | 0.006   | 0.015       | 0.009   | 0.018         | 0.011   | 0.020   | 0.004   | 0.013   |  |
|                      | (0.055) | (0.052)     | (0.060) | (0.057)       | (0.060) | (0.057) | (0.055) | (0.052) |  |
| Control mean         | 0.169   | 0.169       | 0.171   | 0.171         | 0.180   | 0.180   | 0.161   | 0.161   |  |
| Observations         | 1570    | 1570        | 1570    | 1570          | 1570    | 1570    | 1570    | 1570    |  |
| Clusters             | 98      | 98          | 98      | 98            | 98      | 98      | 98      | 98      |  |
| Stratum FE           | Yes     | Yes         | Yes     | Yes           | Yes     | Yes     | Yes     | Yes     |  |
| Controls             | No      | Set I       | No      | Set I         | No      | Set I   | No      | Set I   |  |

#### Table A19: Effects of chief tax collection: Respondent gender

*Notes:* This table reports the effect of chief tax collection by respondent gender. Coefficients on *Chief tax collection* are OLS estimates with robust standard errors clustered at the polygon level, the unit of randomization and of analysis. *Chief Meeting* is the proportion of citizens requesting a meeting with the chief in a given polygon, and associated p-values (\*\*\*p < 0.01; \*\*p < 0.05; \*p < 0.1). *Gov Meeting* is the proportion of citizens requesting a meeting with the provincial government in a given polygon. *Either* is the proportion of citizens in a given polygon requesting either a meeting with the chief or the provincial government. *Both* is the proportion of citizens in a given polygon experienced tax collection by the chief (1) or by the provincial government (0; control). Here we compare polygons that had a collective action opportunity (j = 101) and where either a collection was done exclusively by the chief (j = 51) or by the provincial government (j = 50). *Stratum FE* refer to the stratum used for randomization which is a combination of geographic location of the neighborhood as well as previous tax compliance. *Set I* controls include house type, wave of collective action campaign, distances to letter boxes and polygon-level averages of participation and per capita tax revenue in the 2016 campaign.

## A6 Discussion of Differences with Pre-Analysis Plan

Finally, we show the results of further analyses included in the pre-analysis plan. We first document that chief tax collection did not lead to statistically detectable increases in trust in institutions (Table A20), although the coefficients are non-trivial. We then analyze additional endline I and endline II outcomes in Tables A21 and A22. Finally, we compare participation in chief and state tax collection neighborhoods to five neighborhoods in which collectors only went to deliver tax bills but never returned to collect taxes; citizens were expected to pay themselves at the tax ministry. With only five neighborhoods, this analysis is unfortunately under-powered but for completeness we present the results in Table A23.

|                      | Trust in         |                  |                    |                    |  |
|----------------------|------------------|------------------|--------------------|--------------------|--|
|                      | Gov              | Gov              | Chief              | Chief              |  |
| Chief tax collection | 0.123<br>(0.102) | 0.144<br>(0.099) | $0.104 \\ (0.088)$ | $0.103 \\ (0.081)$ |  |
| Control mean         | -0.068           | -0.068           | -0.067             | -0.067             |  |
| Observations         | 958              | 957              | 946                | 945                |  |
| Clusters             | 101              | 101              | 101                | 101                |  |
| Stratum FE           | Yes              | Yes              | Yes                | Yes                |  |
| Controls             | No               | Set I            | No                 | Set I              |  |

#### Table A20: Effects of chief tax collection on trust in institutions

*Notes:* This table reports the effect of chief tax collection on trust in institutions. Coefficients on *Chief tax collection* are OLS estimates with robust standard errors clustered at the polygon level, the unit of randomization and of analysis, and associated p-values (\*\*\*p < 0.01; \*\*p < 0.05; \*p < 0.1). Outcomes in columns 1-4 come from the Endline I survey and have been z-transformed such that coefficients represent standardized mean differences. *Trust* measures citizens confidence in the work of the chief and the government, respectively. *Chief tax collection* is a binary indicator for whether the polygon experienced tax collection by the chief (1) or by the provincial government (0; control). Here we compare polygons that had a collective action opportunity (j = 101) and where either tax collection was done exclusively by the chief (j = 51) or by the provincial government (j = 50). We restrict the sample here further to exclude outliers on the capacity questions as well as villas. *Stratum FE* refer to the stratum used for randomization which is a combination of geographic location of the neighborhood as well as previous tax compliance. *Set I* controls include house type, wave of collective action campaign, distances to letter boxes and polygon-level averages of participation and per capita tax revenue in 2016.

|                      | Evaluation of     |                   | Corruption by       |                     | Capacity of       |                   |
|----------------------|-------------------|-------------------|---------------------|---------------------|-------------------|-------------------|
|                      | Chief             | Chief             | Chief               | Chief               | Gov               | Gov               |
| Chief tax collection | -0.007<br>(0.089) | -0.003<br>(0.083) | -26.324<br>(26.111) | -29.406<br>(27.048) | -0.018<br>(0.040) | -0.012<br>(0.040) |
| Control mean         | 3.487             | 3.487             | 463.517             | 463.517             | 0.554             | 0.554             |
| Observations         | 675               | 674               | 743                 | 742                 | 963               | 962               |
| Clusters             | 96                | 96                | 99                  | 99                  | 101               | 101               |
| Stratum FE           | Yes               | Yes               | Yes                 | Yes                 | Yes               | Yes               |
| Controls             | No                | Set I             | No                  | Set I               | No                | Set I             |

#### Table A21: Effects of chief tax collection on additional outcomes in Endline I

*Notes:* This table reports the effect of chief tax collection on additional outcomes in Endline I. Coefficients on *Chief tax collection* are OLS estimates with robust standard errors clustered at the polygon level, the unit of randomization and of analysis, and associated p-values (\*\*\*p < 0.01; \*\*p < 0.05; \*p < 0.1). Outcomes in columns 1-4 come from the Endline I survey. *Evaluation of chief* measures citizens' perception of the performance of the chief. *Corruption by chief* measures citizens' evaluation of how much of a public works project budget would be stolen by the chief. *Capacity of gov* measures citizens' perception of the capacity of the state to repair roads within three months. *Chief tax collection* is a binary indicator for whether the polygon experienced tax collection by the chief (1) or by the provincial government (0; control). Here we compare polygons that had a collective action opportunity (j = 101) and where either tax collection was done exclusively by the chief (j = 51) or by the provincial government (j = 50). We restrict the sample here further to exclude outliers on the capacity questions as well as villas. *Stratum FE* refer to the stratum used for randomization which is a combination of geographic location of the neighborhood as well as previous tax compliance. *Set I* controls include house type, wave of collective action campaign, distances to letter boxes and polygon-level averages of participation and per capita tax revenue in 2016.

|                      | Gov eval          |                   | DIVAS eval        |                   | Chief responsive |                  |
|----------------------|-------------------|-------------------|-------------------|-------------------|------------------|------------------|
|                      | (1)               | (2)               | (3) (4)           |                   | (5)              | (6)              |
| Chief tax collection | -0.073<br>(0.121) | -0.022<br>(0.103) | -0.111<br>(0.070) | -0.100<br>(0.070) | 0.057<br>(0.067) | 0.088<br>(0.064) |
| Control mean         | 4.124             | 4.124             | 4.583             | 4.583             | 2.982            | 2.982            |
| Observations         | 1191              | 1191              | 1077              | 1077              | 1427             | 1427             |
| Clusters             | 101               | 101               | 100               | 100               | 99               | 99               |
| Stratum FE           | Yes               | Yes               | Yes               | Yes               | Yes              | Yes              |
| Controls             | No                | Set I             | No                | Set I             | No               | Set I            |
| Sample               | C + L             | C + L             | C + L             | C + L             | C + L            | C + L            |

Table A22: Effects of chief tax collection on additional outcomes in Endline II

*Notes:* This table reports the effect of chief tax collection on additional outcomes in Endline II. Coefficients on *Chief tax collection* are OLS estimates with robust standard errors clustered at the polygon level, the unit of randomization and of analysis, and associated p-values (\*\*\*p < 0.01; \*\*p < 0.05; \*p < 0.1). *Chief Meeting* is the proportion of citizens requesting a meeting with the chief in a given polygon. Outcomes come from the Endline II survey. *Gov eval* measures citizens' evaluations of the performance of the provincial government in Kananga. *DIVAS eval* measures citizens' evaluations of the performance of the jurisdiction's inhabitants. *Chief tax collection* is a binary indicator for whether the polygon experienced tax collection by the chief (1) or by the provincial government (0; control). Here we compare polygons that had a collective action opportunity (j = 101) and where either tax collection was done exclusively by the chief (j = 51) or by the provincial government (j = 50). We restrict the sample here further to exclude compounds classified as villas. *Stratum FE* refer to the stratum used for randomization which is a combination of geographic location of the neighborhood as well as previous tax compliance. *Set I* controls include house type, wave of collective action campaign, distances to letter boxes and polygon-level averages of participation and per capita tax revenue in 2016.

 Table A23: Effects of chief and govt. collection on demand for citizen meetings: Comparison to pure control group

|                      | Gov meeting       |                   |                   | Chief meeting     |                   |                   |                   |                   |
|----------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
|                      | (1)               | (2)               | (3)               | (4)               | (5)               | (6)               | (7)               | (8)               |
| Chief tax collection | -0.081<br>(0.095) | -0.057<br>(0.097) |                   |                   | -0.051<br>(0.080) | -0.030<br>(0.084) |                   |                   |
| Gov tax collection   |                   |                   | -0.074<br>(0.096) | -0.075<br>(0.095) |                   | . ,               | -0.048<br>(0.081) | -0.044<br>(0.084) |
| Control mean         | 0.243             | 0.243             | 0.243             | 0.243             | 0.219             | 0.219             | 0.219             | 0.219             |
| Observations         | 1486              | 1486              | 1483              | 1481              | 1486              | 1486              | 1483              | 1481              |
| Clusters             | 56                | 56                | 55                | 55                | 56                | 56                | 55                | 55                |
| FE                   | None              |
| Controls             | None              | Set I             |

*Notes:* This table compares participation in chief and state tax collection neighborhoods to five neighborhoods in which collectors only went to deliver tax bills but never returned to collect taxes; citizens were expected to pay themselves at the tax ministry. Coefficients on *Chief tax collection* are OLS estimates with robust standard errors clustered at the polygon level, the unit of randomization and of analysis, and associated p-values (\*\*\*p < 0.01; \*\*p < 0.05; \*p < 0.1). *Chief Meeting* is the proportion of citizens requesting a meeting with the chief in a given polygon. *Gov Meeting* is the proportion of citizens requesting a meeting with the chief in a given polygon requesting either a meeting with the chief or the provincial government. *Both* is the proportion of citizens in a given polygon requesting both a meeting with the chief and with the provincial government. *Both* is a binary indicator for whether the polygon experienced tax collection by the chief (1) or whether the polygon was in the Pure Control group (0). Gov tax collection is a binary indicator for whether the polygon experienced tax collection by the government (1) or whether the polygon was in the Pure Control group (0). Here we compare polygons that had a collective action opportunity (J = 106) with treatment arms govt. collection of each stratum with at least one pure control polygon. *Set I* controls include house type, wave of collective action campaign, distances to letter boxes and polygon-level averages of participation and per capita ax revenue in the 2016 campaign.