

The appearance of democracy: How conditional payments reshape behavior among local leaders

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ABSTRACT

Democratic governance of shared natural resources is increasingly promoted through conditional payments in development and conservation programs. Whether such payments genuinely promote democratic decision-making or merely incentivize its appearance is an open empirical question with important implications for environmental governance. We conduct a lab-in-the-field experiment with 64 local leaders (32 traditional authorities and 32 elected Water Point Committee chairpersons) and 384 villagers across 32 villages in rural Namibia. Leaders choose among three procedural rules for allocating a collective fund: democracy (binding vote), pseudo-democracy (vote held but leader decides), and autocracy (leader decides unilaterally). We introduce bonus payments conditional on allowing for a vote. This parallels real-world conditionality where external actors can observe democratic procedures but not their substance. We find that payments do not significantly increase genuine democratic governance. Instead, payments significantly reduce autocratic choices, with a corresponding marginally significant increase in pseudo-democratic choices, where leaders adopt the appearance of democratic process without its substance. Under pseudo-democracy and autocracy, implemented allocations match leader preferences rather than the villager majority. Even under the democratic rule, roughly one in five groups preferred the leader-favoring allocation, indicating that democracy does not guarantee egalitarian outcomes. Exploratory results suggest that payments crowd out democratic behavior among leaders who chose democracy at baseline, while drawing baseline autocrats toward genuine democratic procedures. Our findings caution that process-conditional payments in environmental governance may generate symbolic compliance, with heterogeneous effects depending on leaders' pre-existing governance behavior.

1. Introduction

Community-based natural resource management (CBNRM) programs worldwide rely on local leaders to govern shared resources democratically. From Water Point Committees managing communal water infrastructure in sub-Saharan Africa to community forestry groups in Southeast Asia, local democratic governance is considered essential for equitable and sustainable resource management (Agrawal, 2001; Ostrom, 1990; Ribot et al., 2006). Development agencies and conservation organizations increasingly use conditional payments to promote democratic governance of these resources, tying financial support to observable democratic procedures such as holding community votes or establishing participatory committees (Mansuri and Rao, 2012). Yet a fundamental monitoring problem undermines this approach: external

actors can typically observe whether a democratic procedure was conducted, but cannot easily verify whether it was substantive or merely performative (Ribot, 2003). This creates an incentive for leaders to adopt the appearance of democracy without its substance.

However, the challenge extends beyond what external actors can observe. Even where participation is implemented, decentralized governance of natural resources can reproduce or deepen local inequality (Andersson and Agrawal, 2011). Elite capture in community forestry intensifies when resource values are high and institutional safeguards are weak (Iversen et al., 2006) and formal participatory structures can coexist with systematic exclusion of marginalized groups (Kenfack Essoungong et al., 2019). At scale, Nepal's community forestry decentralization reduced overall rural poverty but widened inter-group inequality, as dominant ethnic and caste groups leveraged literacy,

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capital, and political connections to capture disproportionate benefits (Cook et al., 2026). External organizational involvement can mitigate elite capture risk, but institutional design determines whether such interventions promote accountability or only add a layer of formal compliance (Persha and Andersson, 2014; Brownson et al., 2020). This governance challenge parallels a problem in Payments for Ecosystem Services, where payments are conditioned on observable actions rather than actual outcomes (Engel et al., 2008). Governance conditionality similarly rewards the observable process of democracy rather than its substance. Despite the widespread use of such conditional payments in environmental governance, causal evidence on how they affect leaders' democratic behavior remains scarce. The broader literature on decentralization has long documented a gap between formal democratic structures and their substantive implementation (Bardhan, 2002; Ribot, 2003), but evidence on the specific mechanisms that widen or close this gap is limited.

This dilemma is particularly pressing in Sub-Saharan Africa, where democratization efforts are layered onto traditional governance structures (Logan, 2013; Holzinger et al., 2020), creating complex institutional hybrids (Cleaver, 2017) vulnerable to elite capture (Bardhan and Mookherjee, 2000; Acemoglu et al., 2014). Foreign aid donors often address this by conditioning payments on observable actions like holding a vote, since the genuineness of democratic engagement is difficult to monitor. In these hybrid settings, however, pseudo-democracy, where elites maintain the façade of democratic participation through token elections and consultative procedures without genuinely sharing power (Alatas et al., 2019; Beaulieu and Hyde, 2008; Dasgupta and Beard, 2007; Hyde, 2011), represents a low-cost compliance strategy. Such outcomes undermine the potential for democratic processes to curb self-serving behavior and produce socially beneficial resource management (Barro, 1973; Besley, 2005; Fearon, 1999). In Namibia's CBNRM program, for instance, the transfer of wildlife and water management to communities has expanded conservation but distributed costs and benefits unevenly, with pastoralists bearing disproportionate costs from wildlife damage while tourism benefits flow to external operators (Schneegg and Kiaka, 2018).

Our pseudo-democratic rule isolates this incentive. Leaders hold a vote, satisfying the observable condition that donors reward, but retain decision authority over the outcome. At the national level, autocratic regimes routinely adopt democratic institutions without giving up power, whether to co-opt opposition (Gandhi and Przeworski, 2007), satisfy external monitors through a "menu of manipulation" (Schedler, 2002), or maintain electoral form without liberal substance (Diamond, 2002). Hyde (2011) shows that election monitoring generates this incentive at the national level; our conditional payments replicate it at the community level. In our design, villagers vote and the procedure is visible as participation, but the vote is not binding and the leader does not observe the voting outcome before deciding which rule to implement. This separates procedural appearance from informational updating and allows us to identify whether leaders respond to the reward for visible participation itself.

The theoretical effects of conditional payments on democratic behavior are ambiguous. Under asymmetric information about prevailing norms, payments can send competing signals (Spence, 1973; Connelly et al., 2011). They may highlight the social desirability of democratic governance and reinforce existing practices, or they may signal that such practices are uncommon, encouraging superficial compliance to capture the reward (Gneezy et al., 2011). Following Bénabou and Tirole's (2006) seminal theory, incentives can either strengthen or crowd out intrinsic motivation depending on whether they are perceived as informative or controlling signals. For leaders already governing democratically, external payments could risk crowding out intrinsic motivation, as leaders may forgo the reward to signal genuine commitment (Kirkios et al., 2020; Bowles and Polanía-Reyes, 2012). For leaders who are not democratic at baseline, the same payments may shift behavior toward observable compliance, including pseudo-democratic

procedures that satisfy the payment condition without altering the underlying allocation of power.

We address this gap through a lab-in-the-field experiment with 64 local leaders and 384 villagers across 32 villages in the Ohangwena region of northern Namibia. Our participants are real leaders who govern communal natural resources: 32 traditional authorities (TL) who allocate grazing land and mediate resource conflicts within their communities, and 32 democratically elected Water Point Committee chairpersons (DEL) who manage communal water infrastructure, a critical resource in this semi-arid region. These roles are associated with different governing motivations: based on leaders' open-ended responses about why they sought office, we classify their motivation as either intrinsic (driven by duty or community service) or extrinsic (driven by external rewards or recognition; see Section 2.1 for details). In the experiment, leaders choose among three procedural rules for allocating a collective fund: a democratic rule, where a binding group vote determines the outcome; an autocratic rule, where the leader decides unilaterally; and a pseudo-democratic rule, where villagers vote but the leader retains the final, unilateral decision. We introduce conditional bonus payments for "allowing a vote," a condition satisfied by both the democratic and pseudo-democratic rules. This design mirrors the real-world monitoring problem: the payment rewards an observable process (a vote is held) but cannot condition on its substance (whether the leader respects the vote outcome).

Our results show that in the absence of payments, 64% of leaders chose the fully democratic rule, forgoing private benefits. Payments conditional on allowing for a vote did not significantly increase the adoption of this democratic rule. Instead, payments reduced autocratic choices, with a corresponding increase in pseudo-democratic choices. Payments thus encouraged symbolic rather than substantive democracy. Exploratory analyses indicate that these effects were heterogeneous and moderated by baseline choices and motivations: among leaders who were democratic at baseline, payments crowded out democratic behavior; among leaders who were initially autocratic, payments crowded in pseudo-democratic choices.

Our study contributes to the growing literature on governance and conditionality in environmental policy in three ways. First, we provide the first experimental evidence on how conditional payments affect democratic decision-making among real local leaders who manage communal natural resources, connecting the behavioral economics of incentives to the persistent gap between formal and substantive governance documented in the CBNRM and decentralization literatures (Andersson and Agrawal, 2011; Cook et al., 2026; Persha and Andersson, 2014). Second, we introduce and operationalize pseudo-democracy as a distinct behavioral response to governance incentives: a form of symbolic compliance recognizable across policy domains, from community-based resource governance to development aid. Third, we connect the behavioral economics literature on motivation crowding (Bénabou and Tirole, 2006; Frey and Jegen, 2001) to the practical design of governance conditionality, showing that the intrinsic motivation of local leaders is a factor that should inform how conditional payments are structured.

2. Materials and methods

2.1. Subjects and general procedure

The study was conducted in northern Namibia's Ohangwena region, which is semi-arid and one of the most densely populated. The large majority of the population belong to the Oukwanyama tribe, which is

the largest ethnic group of the country. To strengthen the homogeneity of the subject pool and comparability between participants, we focused on the three largest constituencies (Ohangwena, Endola, and Oshikango) within the Ohangwena region. These constituencies are in the same political region and under the same traditional authority.¹ People in this region speak the same language and share the same norms, values, and traditions related to democratic governance.

Our sample comprises 64 local leaders from 32 villages in the Ohangwena region: 32 traditional authorities (chiefs, hereafter TL) and 32 democratically elected Water Point Committee chairpersons (hereafter DEL). Each village contributed one TL and one DEL. Additionally, 384 villagers participated (12 per village: 2 related to the chief, 2 related to the DEL, and 8 neutral villagers). To select villages, we first gathered information on all villages with a functional water point in three selected constituencies from the Directorate of Rural Water Supply. Key selection criteria included the presence of a chief, who mediates land conflicts, and a running water point managed by a DEL. From the 92 eligible villages across these three constituencies, we randomly selected 32 for the study and 15 as backups.

All 32 selected villages were visited twice. The initial visit secured consent from the traditional authority and facilitated organization of the experimental workshop. During the second visit, we conducted the experimental workshop, which lasted between three and four hours. To ensure the anonymity of decisions and the untraceability of leaders' choices, all earnings were paid out at the conclusion of the workshop. These earnings comprised payments from the procedural fairness task (the focus of this study), two additional experimental tasks administered after the fairness task (a social preference task and a nepotism game), and a 30 N\$ show-up fee. On average, villagers earned approximately 90 N\$ $\pm$ 12 N\$ (equivalent to \$16 PPP adjusted), while leaders earned about 165 N\$ $\pm$ 42 N\$ (\$29 PPP adjusted). These amounts represent substantial compensation for participants, given that the self-reported average daily cash income in our sample was approximately 9.3 N\$ for villagers and 29.7 N\$ for leaders. All participants, both leaders and villagers, were included in the experiments and subsequent analyses. Further details on the field implementation are reported in Supplementary Material Section S1.

Ohangwena is one of the poorest areas in Namibia where people mostly live in rural areas and subsistence farming is the main source of livelihoods (Namibian Statistics agency, 2016). In our sample, about one-third of participants state agriculture and livestock production as their main source of income and almost every household is engaged in some kind of subsistence agriculture and owns some goats and chicken. In terms of the socio-economic composition of our sample, we see that both chiefs ($F_{(7, 386)} = 29.30, p = 0.00$) and DELs ($F_{(7, 385)} = 4.80, p = 0.00$) are significantly wealthier and older than the average villager and chiefs tend to be less educated compared to both villagers and DEL. Chiefs also significantly differ from DELs (Steimanis et al., 2020), as they are more likely to be male, older and wealthier ($F_{(11, 51)} = 4.42, p = 0.00$). Regarding leader specific variables, we find substantial variation in leadership experience, dependent on the type of leader. Chiefs, which are appointed for a lifetime, have an average experience of 17 years, while DELs have about 8 years of experience. For details regarding comparison of the socio-economic characteristics between leaders and villagers, see Supplementary Material Table S4.

Governance motivation classification: Before the experiment, leaders responded to an open-ended survey question about their motivations for leadership. The survey was administered in Oshivambo; the local phrasing ("Elalanako loye olali lashike opo ukufe ombinga momahoololo?") translates as "What were your main reasons for taking

part in leadership selection?", which applies to both appointed chiefs and elected DELs. Following the framework of Frey and Oberholzer-Gee (1997), responses were classified as reflecting either intrinsic motivation (driven by a sense of duty, community service, or personal satisfaction in governance) or extrinsic motivation (driven by external rewards, social status, or recognition). Four independent coders classified all responses; disagreements were resolved by majority rule. Inter-rater reliability was high (Fleiss' $\kappa = 0.87$, percent agreement = 88%); disagreements were resolved through discussion. Of the 64 leaders, 35 (55%) were classified as intrinsically motivated and 29 (45%) as extrinsically motivated (see Supplementary Material Section S1 for details on the classification procedure and validation). Accordingly, we treat the intrinsic/extrinsic coding as a proxy for orientation toward governance and public service roles (Perry et al., 2010), not as a direct measure of democracy-specific intrinsic motivation. Leaders classified as intrinsically motivated exhibit substantially higher baseline democratic preferences (Fig. 2b), which provides the variation that our heterogeneity analysis exploits.

2.2. Experimental design

We designed a two-stage decision task to measure how payments conditional on allowing for a vote influence leaders' preferences for democratic decision-making. The task is conducted in groups of seven (one leader and six villagers) over three rounds (see Fig. 1). The first round establishes baseline choices without payments; the subsequent two rounds introduce conditional payments. In Stage 1, leaders choose one of three procedural rules: democratic, pseudo-democratic, or autocratic. These rules determine how a monetary allocation is distributed between the leader and villagers in Stage 2, where one of two allocations is implemented: a leader-favoring allocation (A: N\$100 leader, N\$10 each villager) or an egalitarian allocation (B: N\$40 leader, N\$20 each villager). The total payout (N\$160) is held constant across both allocations to eliminate efficiency concerns.

The six villagers vote in private for their preferred allocation using the strategy method (Selten, 1967), assuming the leader allows for a vote. Under the democratic rule, the allocation receiving four or more votes is implemented. Under the autocratic rule, the leader decides unilaterally; villagers are informed that the leader "decided on her own without considering their votes." Under the pseudo-democratic rule, villagers vote but the leader, unaware of the result, decides which allocation to implement. Villagers are told the leader "allows for a vote" and that she can follow or disregard the majority's choice, ensuring no deception.² This design separates procedural appearance from informational updating using a veto-style variant where leaders observe the vote before deciding whether to follow it. Leaders and villagers participated in separate locations, making real-time vote outcome communication infeasible.

For simplicity, we refer to leaders who choose the democratic rule in the baseline setting without conditional payments as "democrats", those who chose the pseudo-democratic rule as "pseudo-democrats", and those who chose the autocratic rule as "autocrats".

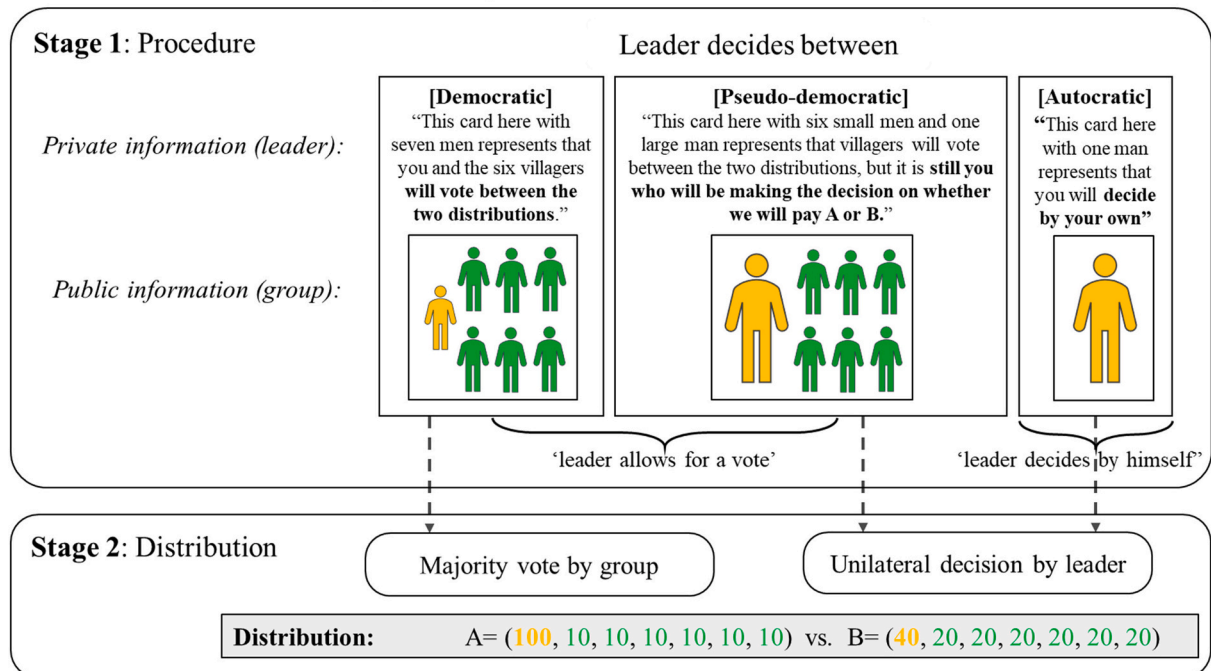
Experimental variation. The experiment uses a within-subject design where leaders make three rule and distribution decisions (see Fig. 1 panel B).³ After the baseline round without payments, we introduce conditional payments to encourage leaders to "allow for a vote" in the procedural choice (Stage 1). This payment is independent of a leaders' decisions on the allocation (A or B) in Stage 2. The conditional payments are designed to reflect real-world scenarios where external

² They can neither infer it from the payments, because their final payout consists of payments for several tasks and a show-up fee.

³ Leaders made an additional 3 decisions with different distributions A and B to elicit other motivations (equity, envy, spite) for procedural fairness for a total of six decisions. The results on these distributions are reported in (Vollan et al., 2020).

¹ We received permissions and support for our research from both the traditional authority as well as the regional government in Ohangwena. We restricted our research to the largest constituencies as we had to get additional permission from each constituency by the respective councilor.

A Procedural fairness task (Round 1)



B Within-subject design (Round 1-3)

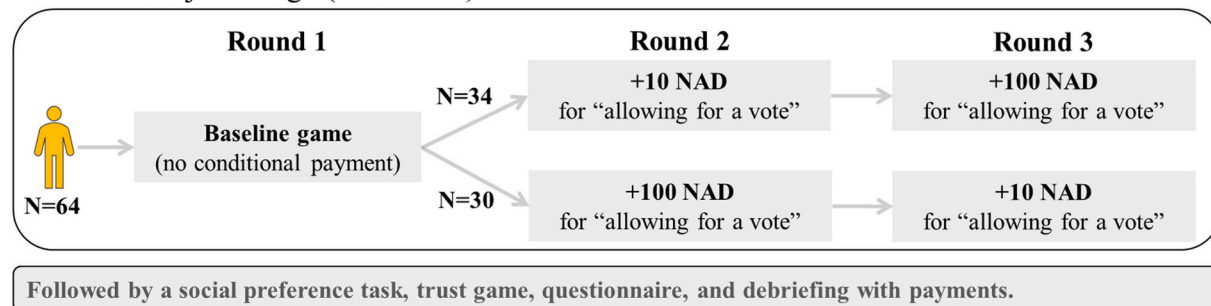


Fig. 1. Procedural fairness task

Notes: The numbers in the grey box refer to monetary amounts in Namibian dollars. The first amount in orange goes to the leader; the following six go to the villagers. Details on the field implementation, including the order of experimental tasks which are not included in this manuscript are reported in Supplementary Material Section S1.

agencies often base rewards on observable actions, such as holding elections, without being able to fully assess whether these actions lead to genuine community involvement.

In the *baseline* round, leaders choose without any conditional payment. In the *small bonus treatment*, the leader receives a conditional payment of 10 N\$ for allowing a vote. This *small bonus* is largely symbolic, as it does not compensate for the potential 60 N\$ loss if the egalitarian allocation is implemented in Stage 2 instead of the leader-favoring allocation. In the *large bonus treatment*, leaders receive a conditional payment of 100 N\$, which more than compensates for the potential loss.

To test the introduction of payments conditional on allowing for a vote, participants always started without any monetary incentives, reflecting the existing institutional status quo. Due to sample size constraints (only 2 observations per village of main interest), we opted for focusing on the *introduction* of payments and not their *removal*. The order of the treatment rounds was randomized to control for potential sequencing effects of offering the large bonus before the small one and vice-versa (see Supplementary Material Fig. S3 and Table S4). Leaders were informed that only one of the rounds would be randomly selected for payment at the end of the workshop by rolling a die.

2.3. Econometric modelling choices

We used regression analysis to study the effects of payments conditional on allowing for a vote on leader's rule choices. In all models, we control for whether the small or large bonus was offered first to leaders. For the average treatment effects, we used panel Probit models with the rules as binary outcomes. Results from multinomial Probit models using the categorical rule choice as the dependent variable are consistent with the results reported in the main text. For the heterogeneous treatment responses based on leaders' motivations to govern we used multilevel panel regressions that account for the grouping structure of the data at the individual level (random intercept). Results are comparable when categorizing leaders based on the authentic leadership scale (median split). For details, see Supplementary Materials, Section S3.5. The data and code to replicate the results reported in this manuscript are available on GitHub (link).

2.4. Power analysis & equivalence tests

We acknowledge that our leader sample ($N = 64$) is small. While this limits our ability to detect smaller effects, our design (where each leader

serves as their own control) maximizes statistical power given the sample constraint inherent to lab-in-the-field research with real leaders. Based on our sample of 64 leaders and the observed correlation of rule choices between baseline and the first conditional payment (correlation = 0.39), we can calculate the minimal detectable effect sizes (MDES). We are powered to detect changes in democratic rule choices of 18 percentage points at conventional levels at conventional level (alpha of 0.05 and 80% power). This is a conservative approach to determine MDES, as we only use the data from baseline and response to the first conditional payment. We run equivalence tests (Lakens et al., 2018) to determine the size of effects for which to interpret the statistically (non-) significant differences in rule choices between baseline and incentivized rounds. We set the equivalence bounds, i.e. the smallest effect size of interest induced by the conditional payments, to the MDES of 18 pp. Equivalence testing confirms that the reduction in autocratic rule choices is larger than 18 pp. while the effect on democratic rule choices is statistically equivalent (not larger than 18 pp). More data would be needed to draw conclusive evidence regarding the effects for pseudo-democratic rule choices. For details on equivalence testing and power calculations, see Supplementary Material Section S3.1.

2.5. Ethics and transparency

All participants, including both leaders and villagers, provided written informed consent before participating in the study. Data were collected in 2014 under the official authorization of the Namibian Ministry of Education and with formal support from both the Ohangwena Regional Council and the Oukwanyama Queen, the highest traditional authority in the region. At the time of the study, neither the host institutions nor national regulations required Institutional Review Board (IRB) clearance for field experiments of this nature. Nonetheless, the study adhered to rigorous ethical standards:

- Leaders and villagers participated in private, parallel workshops with no contact during decision tasks.
- Tasks were neutrally framed with no value-laden language and explained using visual aids and control questions to ensure understanding.
- Local research assistants, native speakers of Oshivambo, conducted all workshops; translations were back-translated to ensure linguistic fidelity.
- Participants' identities and individual decisions were kept anonymous, and payoff delivery was aggregated across tasks to avoid tracing decisions.
- All subjects received compensation significantly above local average daily cash income, and no deception was used at any stage.

While this study was not pre-registered as this was not the standard in the discipline by the time of data collection, the treatment manipulations define the causal analyses presented in the manuscript. The within-subject data for treatments, including the small and large conditional payment, is the only remaining data to be published that was collected from the field study and is originally presented here. The baseline data for the procedural fairness task, and the data for subsequent tasks in the data collection process related to the measurement of social preferences and nepotism was published in Vollen et al. (2020). The full data collection protocol is available in the supplementary materials.

3. Results

3.1. Baseline democratic preferences and leader behavior

Our study area reflects a broad Namibian preference for democratic governance. Data from the Afrobarometer survey show that democratic preferences in our study sites (71%) are statistically indistinguishable

from those in the wider study region (74%) and the rest of Namibia (76%) (Fig. 2 A; Mann-Whitney U tests, $p > 0.35$).

Despite this societal consensus, we find a significant gap between the democratic principles valued by leaders and their constituents. As shown in Fig. 2B, leaders are substantially less likely to agree with democratic principles than villagers (T -Tests, all $p < 0.01$). Extrinsically motivated leaders are 27 to 45 percentage points less likely to agree than villagers across all three items (probit AMEs, all $p < 0.01$). Intrinsically motivated leaders, by contrast, are statistically indistinguishable from villagers on voting and democratic accountability, with a moderate gap on inclusive leadership (AME = -20.2 pp., $p < 0.05$). While categorizing motivation as a binary variable is a simplification, it reveals systematic differences that are critical for understanding leaders' responses to incentives.

In the baseline round of our procedural fairness task, which had no payments conditional on allowing for a vote, leaders' choices reflected these underlying attitudes. A majority of leaders (64%) opted for the fully democratic rule, while 22% chose the pseudo-democratic rule and 14% chose the autocratic rule (Fig. 2C). This choice varied by motivation: extrinsically motivated leaders were significantly more likely to choose the autocratic rule than intrinsically motivated leaders (18 percentage point difference, $z = 2.11$, $p = 0.04$).

To assess whether these experimental choices reflect real-world performance, we compared them to villagers' satisfaction with their leaders. We find a strong correlation. Relative to leaders who chose the democratic rule, villagers reported significantly lower satisfaction with leaders who chose the pseudo-democratic ($\beta = -0.36$, $p < 0.01$, 95% confidence interval (CI) = -0.59 , -0.12) or autocratic ($\beta = -0.30$, $p = 0.02$, 95% CI = -0.54 , -0.06) rules (Fig. 2D). This represents a meaningful reduction in satisfaction of approximately half a standard deviation indicating a meaningful link between leaders' experimental behavior and real-life perceptions, as villagers clearly prefer group voting and are less satisfied with leaders who do not allow it.

Taken together, these baseline results reveal a tension. A majority of leaders act democratically, and this behavior aligns with their constituents' satisfaction. However, a significant minority, particularly those with extrinsic motivations, do not. It is in this context of a pro-democratic, yet imperfectly realized, social norm that we introduce conditional payments.

3.2. Conditional payments decrease autocratic choices but increase symbolic compliance

We first analyze the average effect of introducing conditional payments by pooling both treatment rounds (Fig. 3, "Payment Combined"). The payments cause a statistically significant decrease in leaders' propensity to choose the autocratic rule by 9 percentage points relative to baseline ($\beta = -9.1$, $p = 0.02$, 95% CI = -16.6 , -1.6). This reduction, however, does not translate into an increase in genuinely democratic decision-making; the share of leaders choosing the democratic rule remains unchanged ($p = 0.99$). Instead, the decline in autocracy corresponds to a 10-percentage-point increase in the adoption of the pseudo-democratic rule, though this effect is only marginally significant ($\beta = 10.4$, $p = 0.07$, 95% CI = -0.1 , 21.6). The equivalence test for pseudo-democratic choices is inconclusive: neither statistical equivalence to zero nor a significant positive effect can be established at conventional levels (see Supplementary Material Section S3.1). The pattern nevertheless suggests that the primary destination for former autocrats is pseudo-democracy with symbolic compliance rather than genuine democracy.

Next, we examine whether leaders were sensitive to the size of the payment. We find that the magnitude of the conditional payment did not significantly alter this pattern. Both the small (N\$10) and large (N\$100) payments were equally effective in reducing autocracy, with no statistically significant difference between them ($p = 0.60$). Notably, the large payment, despite offering substantial compensation, did not provide any

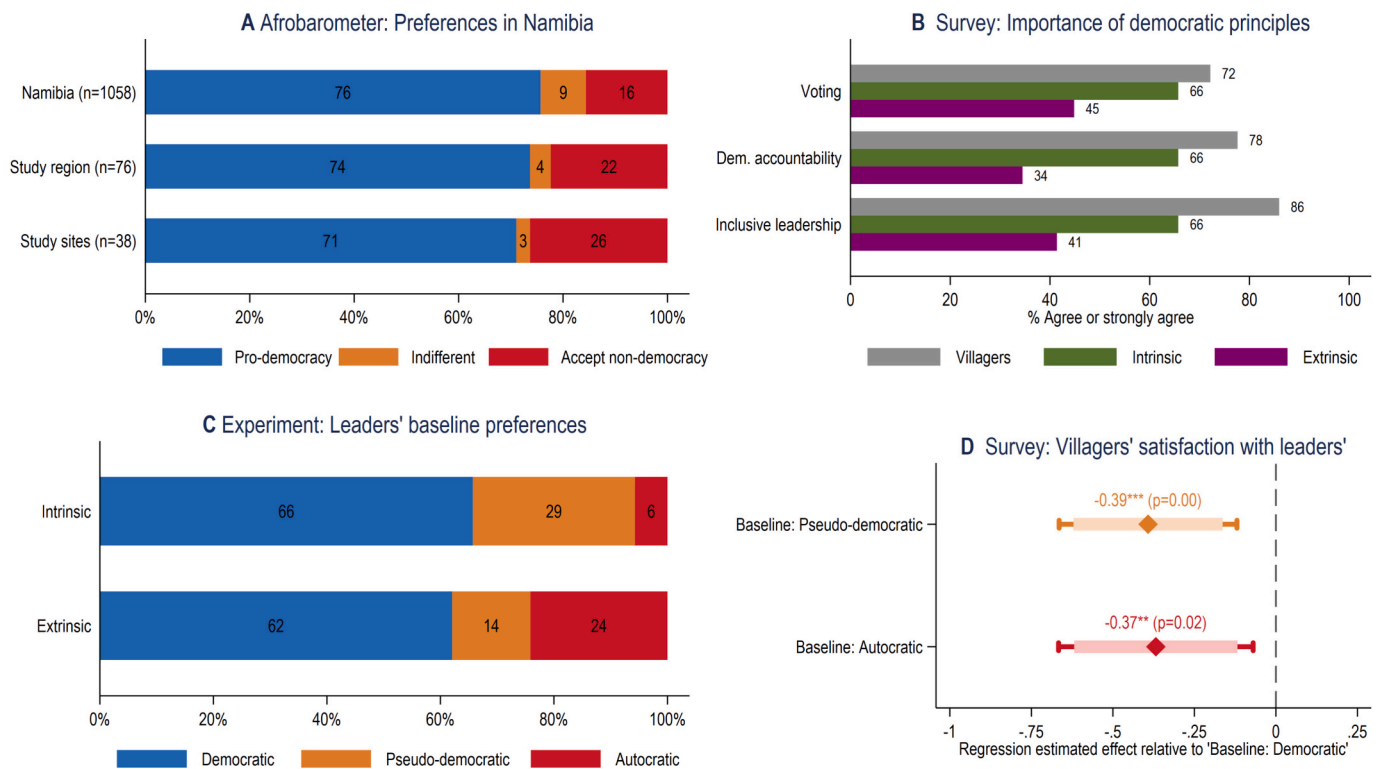


Fig. 2. Democratic preferences

Notes: Panel A utilizes freely available data from Afrobarometer Round 6 (2014), comparing democratic preferences in the study region to the rest of Namibia. Panel B shows leaders' and villagers' share of respondents who agree or strongly agree with the following statements (1 = strongly agree or agree 0 = other): "For important decisions, members of a group should be allowed to vote" (Voting); "Democratic elections in this village ensure that the elected authorities act in the interest of their people" (Democratic Accountability); and "A leader has to serve all people, including those who did not vote for him/her or are not friends" (Inclusive Leadership). Panel C displays the distribution of baseline rule choices by leaders in the experiment over their motivations to govern. Panel D presents villagers' satisfaction with their leaders based on rule choices in the baseline using OLS estimates with village fixed effects. Satisfaction is an index (range 1.4 to 5) based on eight Likert-type items for chiefs (overall performance satisfaction, promises kept, fair allocation of grazing land, fair conflict resolution, equal treatment in court, appropriate actions against rule-breakers, understandable decision-making, non-exploitation of position) and five items for democratic leaders (overall performance satisfaction, prompt repairs, understandable decision-making, appropriate actions against false water consumption reports, non-exploitation of position). At the time of the experiment, participants did not know whether their leader allowed for a vote, ensuring their leader evaluation was uninfluenced by this information. Stars indicate the statistical significance of differences at the following levels: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

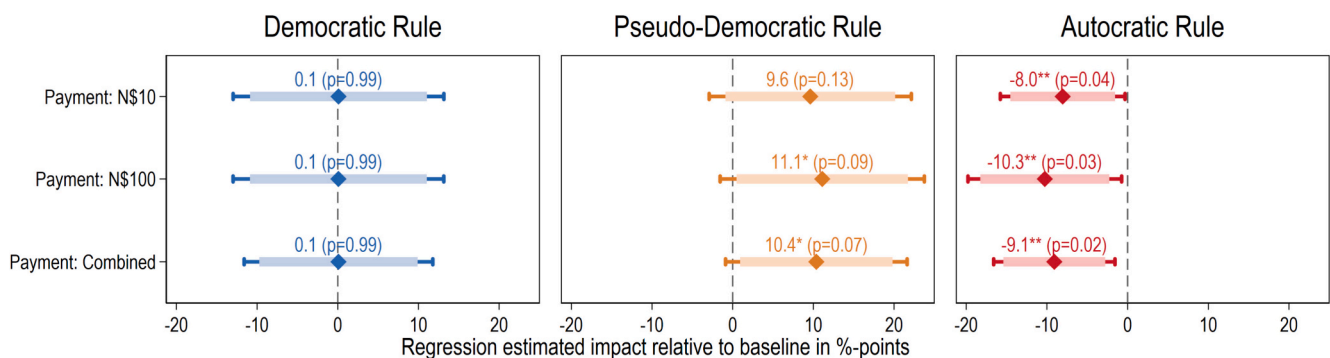


Fig. 3. Average treatment effects of conditional payments

Notes: Average marginal effects from panel Probit regressions with 95% (thin lines) and 90% (thick lines) confidence intervals are plotted. In all models, we control for order effects. The stars indicate whether differences are statistically significant at the following levels: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. The full regression outputs (Table S7) and individual-level transitions (Fig. S4) are reported in the Supplementary Materials, Section S3.5. We find no significant differences in how chiefs react to the bonus payments compared to DELs (see Supplementary Material Table S8).

additional effect on promoting the fully democratic rule. Both payment sizes similarly channeled leaders away from overt autocracy and toward symbolic compliance.

Leaders and villagers differed systematically in their distributional preferences (Stage 2 decisions, see Fig. 4). While 80% of villager groups (51 of 64) preferred the egalitarian allocation at baseline, only 47% of

leaders themselves voted for it. Under the democratic rule, 82% of cells yielded the egalitarian allocation, closely matching the villager majority. The small +2-percentage-point gap reflects mild selection (leaders with egalitarian-majority groups chose the democratic rule slightly more often) and leader pivotality in two tied groups. Under pseudo-democracy, only 31% of cells were egalitarian; under autocracy, 36%.

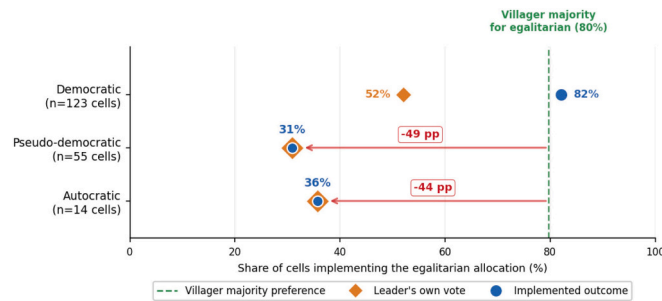


Fig. 4. Allocation outcomes by procedural rule.

Notes. Each row shows three values for one procedural rule. The green dashed line at 80% marks the share of villager groups (51 of 64) in which the baseline villager majority preferred the egalitarian allocation. The orange diamond shows the share of leader-rounds in which the leader's own vote was for the egalitarian allocation; the blue circle shows the share of leader-rounds in which the egalitarian allocation was actually implemented. Under pseudo-democracy and autocracy, the implemented outcome equals the leader's own vote exactly, by construction of the experimental design; orange diamonds and blue circles overlay. The override gaps (–49 and –44 percentage points relative to the villager majority preference) are tested for statistical significance via a linear probability model with standard errors clustered at the leader level; full estimates are reported in Supplementary Material Table S15.

Even with full discretion, 32% of leaders still implemented the egalitarian allocation, but this is below the population baseline of 47%, consistent with mild selection of leader-favoring preferences into non-democratic rules. Among the nine baseline autocratic leaders, the bonus significantly raised the share of egalitarian outcomes (interaction $\beta = 0.52$, $p < 0.01$), while having no detectable effect for baseline pseudo-democrats ($n = 14$) or baseline democrats (see Fig. S7 and Table S15). Given the small subgroup sizes, we treat this pattern as suggestive.

Democratic procedures substantially increased the likelihood of egalitarian outcomes but did not guarantee them. In about one in five cases, the villager majority itself voted for the leader-favoring allocation. Conversely, over a third of autocratic outcomes were egalitarian. When villagers support the leader-favoring allocation, this need not reflect genuine preference alone; it may also reflect strategic deference to leaders who control their welfare in other settings (Kashwan, 2016). Among leaders who shifted from democracy to pseudo-democracy under the bonus, only 25% chose the egalitarian allocation, compared to 83%

among those who maintained democratic procedures. The crowding-out of democratic rule choice thus also crowds out egalitarian allocations. For details, see SI Section 3.8.

3.3. Exploratory analysis: heterogeneous responses by baseline choice and motivation

We emphasize that the following analyses are exploratory. With 64 leaders subdivided by baseline rule choice ($N = 41$ baseline democrats, $N = 23$ baseline non-democrats) and motivation type ($N = 35$ intrinsically motivated, $N = 29$ extrinsically motivated), the smallest cross-classified cells contain only 11–12 observations. These subgroup analyses are therefore underpowered for conventional significance thresholds, and the estimated effects (while large) have wide confidence intervals. The patterns we describe should be interpreted as suggestive evidence that motivates further research rather than as confirmatory tests of causal mechanisms.

We find that the incentive had different effects on leaders who were initially democratic versus those who were not (Fig. 5). For leaders who chose the democratic rule at baseline, the data are consistent with “crowding out”, as the likelihood of choosing the democratic rule decreased by an estimated 26 percentage points ($\beta = -26.1$, $p < 0.01$, 95% CI = –42, –10). This shift was almost entirely absorbed by an increase in choosing the pseudo-democratic rule, as these leaders moved to capture the payment while minimizing procedural change ($\beta = 21.8$, $p < 0.01$, 95% CI = 7, 36). Crowding-out of baseline-democrats did not significantly vary with initial motivations to govern (interaction $\beta = 9.4$, $p = 0.38$, 95% CI = –11, 30).

Conversely, among leaders who chose non-democratic (pseudo-democratic or autocratic) rules at baseline, the payment “crowded in” behavior. Their probability of choosing the fully democratic rule increased by 29 percentage points ($\beta = 29.2$, $p < 0.01$, 95% CI = 7, 51). This effect, however, was not uniform and was driven overwhelmingly by one subgroup. Extrinsically motivated leaders, who were significantly more likely to be autocratic at baseline ($\beta = 47.4$, $p < 0.01$, 95% CI = 13, 82), showed a pattern suggestive of shifting away from autocracy in response to the payment (interaction $\beta = -59.5$, $p < 0.01$, 95% CI = –98, –21). In contrast, the smaller group of intrinsically motivated non-democrats, who were more likely to be pseudo-democratic at baseline ($\beta = -47.8$, $p < 0.01$, 95% CI = –82, –13), showed a much weaker and non-significant response. This pattern suggests that the incentive's primary effect among non-democrats was in moving the most overtly autocratic leaders toward compliance, rather

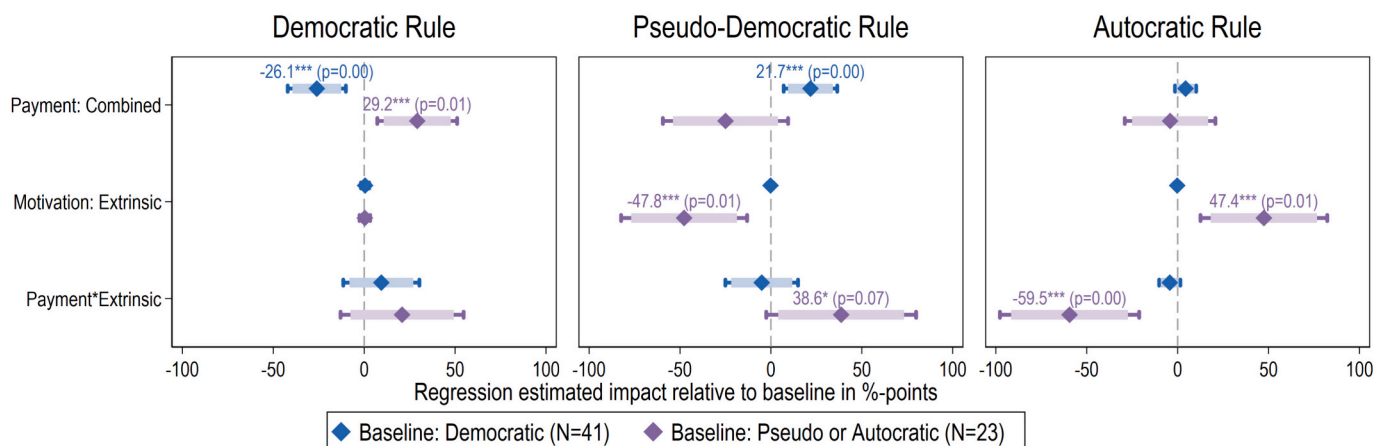


Fig. 5. Heterogeneous responses to conditional payments

Notes: Plotted are the results from four multilevel panel regressions that account for the grouping structure of the data at the individual level (random intercept). The dependent variable in all models is whether the leader opted for the democratic rule. 95% (thin lines) and 90% (thick lines) confidence intervals are shown. In all regression models, we control for order effects. The stars indicate whether differences are statistically significant at the following levels: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Full regression outputs are reported in Supplementary Material Table S11.

than uniformly shifting behavior among all non-democratic leaders.

In summary, conditional payments create a behavioral trade-off that reflects [Bénabou and Tirole's \(2006\)](#) insight about how incentives signal different meanings to different individuals. Payments successfully encouraged more democratic choices among initially non-democratic leaders but did so at the cost of undermining them among those who were already democratic. These patterns are consistent with the interpretation that the net impact of such policies depends on the pre-existing distribution of leader types and their motivations. Scaling up conditional payments may prove ineffective or even counterproductive in contexts with a high share of intrinsically motivated, democratic leaders.

4. Discussion

This study addresses a central challenge in development and environmental governance: how to effectively promote democratic principles among local leaders. Our work intervenes in a policy context where, out of concern for elite capture, development agencies often bypass pre-existing institutions, thereby forfeiting the valuable knowledge and networks of local leaders ([Alatas et al., 2012](#); [Mansuri and Rao, 2012](#)). The common alternative of creating new, parallel institutions can disrupt community social dynamics ([Manor, 2004](#); [Vollan, 2012](#)). We provide causal evidence from a field experiment with real leaders in rural Namibia showing that conditional payments, a popular tool for working with existing leaders, produce complex outcomes. Payments significantly reduce overt autocracy, but they do not promote genuine democracy. The pattern of results, a marginally significant increase in pseudo-democratic choices alongside a null effect on democratic choices, suggests that the primary destination for former autocrats is symbolic compliance rather than substantive democratic governance. Recent experimental evidence from community-based forest management points in a similar direction. Bottom-up accountability through community monitoring alone does not improve governance outcomes unless accompanied by top-down oversight mechanisms that hold leaders directly accountable ([Kahsay et al., 2023](#)). Participants in collective payment schemes perceive governance as less equitable when benefit distribution is left to leaders' discretion rather than distributed equally by design ([Cook et al., 2023](#)).

Our results align with a growing concern in the CBNRM literature that formal institutional safeguards do not automatically translate into substantive democratic governance ([Andersson and Agrawal, 2011](#); [Persha and Andersson, 2014](#)). Conditional payments create incentives for procedural compliance without substantive power-sharing, and leaders exploit this gap. This dynamic of symbolic compliance is not unique; it mirrors the functioning of many hybrid political systems, from clientelist politics in India and Southeast Asia ([Aspinall and Hicken, 2020](#); [Berenschoot, 2019](#)) to competitive authoritarian regimes in Eastern Europe ([Levitsky and Way, 2010](#)), where formal democratic processes often coexist with entrenched informal power. A parallel dynamic has been documented in Indian village councils, where the introduction of direct elections increased local executives' formal authority but did not disrupt elite dominance; instead, elites shifted capture from informal to formal channels ([Heinze, 2025](#)). From a behavioral perspective, this outcome is explained by a classic multi-tasking problem in a principal-agent framework: when principals (donors) can only monitor and reward superficial actions, agents (leaders) will rationally prioritize these symbolic tasks over unrewarded, substantive changes in governance ([Holmstrom and Milgrom, 1991](#)).

The most notable pattern is a behavioral trade-off driven by leaders' pre-existing motivations. Payments are associated with more democratic choices among initially autocratic leaders, but with a shift away from democratic behavior among the larger group of baseline democrats. This is consistent with [Bénabou and Tirole's \(2006\)](#) theory that incentives signal different meanings to different individuals; intrinsically motivated leaders may interpret the payment as a controlling signal, while extrinsically motivated autocrats perceive it as reinforcing the value of

compliance. Such crowding-out effects are well documented in the Global North, where payments have been shown to reduce blood donations or fines have paradoxically increased late kindergarten pick-ups ([Gneezy and Rustichini, 2000](#)). Our demonstration of incentive-driven crowding out among leaders in a conservation and development context in the Global South is a primary contribution of this paper. It confirms that the risks of financial incentives undermining intrinsic motivation ([Bowles and Polanía-Reyes, 2012](#); [Deci et al., 1999](#); [Titmuss, 1970](#)) are not confined to Western societies and have direct relevance for policies aimed at promoting good governance, especially since such negative effects have rarely been documented in conservation contexts in the Global South ([Vorlauffer et al., 2023](#); [Blanco et al., 2023](#); [Moros et al., 2019](#)). A complementary mechanism operates through selection rather than crowding. Higher financial incentives for community governance positions can discourage prosocially motivated candidates in favor of instrumentally oriented ones ([Deserranno, 2019](#)), though this effect reverses when the prosocial dimension of the role is made salient ([Gulzar and Khan, 2025](#)). A related finding is that holding elected office itself increases pro-sociality over time through role internalization ([Landmann and Vollan, 2024](#)), raising the concern that conditional payments may erode the governance commitment that democratic processes cultivate. In our within-subject design, the analogous dynamic is behavioral rather than selective; conditional payments shift the decision frame from one of democratic commitment to one of financial optimization, and leaders whose motivation is already instrumental respond most strongly.

Our study also contributes by providing evidence from Namibia, a country underrepresented in experimental norm enforcement research, yet is broadly representative of Sub-Saharan Africa in terms of support and satisfaction with traditional authorities ([Logan, 2013](#)). Prior work suggests that cultural context heavily shapes the effectiveness of enforcement mechanisms ([Gelfand et al., 2011](#); [Gächter and Schulz, 2016](#)), with studies in Namibia indicating that peer punishment can provoke vengeful or antisocial reactions ([Vollan et al., 2019](#)). This makes conditional payments a relevant alternative mechanism. By analyzing how payments affect democratic norms ([Gross and Vostroknutov, 2022](#)) in non-WEIRD societies ([Henrich et al., 2010](#)), we provide evidence on the diffusion of governance principles outside of their traditional contexts.

These results have some policy recommendations. First, one-size-fits-all financial incentives for democracy can be risky. In contexts like the one that we study, where a majority of leaders are already democratic and intrinsically motivated, such payments may do more harm than good. Second, if payments are used, it would be beneficial to target them to the sub-groups where they can produce positive impacts. They may be most effective in institutional settings with low democratic baselines, where the potential for crowding in autocrats could encourage broader social change through "prestige-based learning" ([Jiménez and Mesoudi, 2019](#)) or leading by example ([Jack and Recalde, 2015](#)). Third, to avoid promoting symbolic compliance, implementing agencies could invest in monitoring the quality of democratic processes, not just their form. Finally, non-financial approaches that build on intrinsic motivation, such as peer-to-peer learning and public recognition, may represent alternative sustainable pathways to strengthening local democracy.

More broadly, our results suggest caution about two assumptions that are often implicit in governance conditionality programs. The first is that democratic procedures produce egalitarian outcomes. In our experimental context, roughly one in five democratic outcomes was leader-favoring, because the majority of villagers themselves voted for the unequal distribution; conversely, over a third of autocratic outcomes were egalitarian. The second is that financial incentives reinforce democratic motivation. Our data suggest the opposite for leaders who were already governing democratically; payments are associated with a shift away from genuine democracy toward pseudo-democratic compliance. Development practitioners designing governance conditionality may therefore benefit from asking not only whether a vote was

held, but whether its results were binding; not only whether participation increased, but whether the increase reflects genuine delegation of authority or strategic adoption of democratic form. Programs that reward observable procedures without verifying substantive outcomes risk widening the gap between formal and functional governance.

While our experiment offers key insights, we acknowledge its limitations. Our measure of democracy is a simplification, as real-world governance involves stronger checks and balances than a single procedural choice. However, the strong correlation between leaders' experimental choices and villagers' real-world satisfaction suggests our measure captures a dimension of democratic preference that has some external validity and is highly valued by the community. This aligns with evidence that people cooperate more under inclusive leadership (Dal Dal Bó et al., 2010) and report higher satisfaction with outcomes from inclusive processes (Olken, 2010). The within-subject design, while increasing statistical power, creates potential for order effects, adaptation, and experimenter demand. Because the baseline round always precedes the treatment rounds, any change could partly reflect learning or demand rather than the causal impact of the payment. However, the direction of our main finding is inconsistent with a pure demand explanation: if leaders inferred that the experimenter valued democratic governance, demand effects would predict a shift toward genuine democracy. Instead, we observe a shift toward pseudo-democracy, a response that satisfies the payment condition at minimal cost while retaining autocratic control. This pattern is difficult to explain through demand alone and is more consistent with strategic compliance. Although our analysis found no evidence of ordering effects, future studies could employ a between-subject control group (three rounds without payment) to more cleanly separate payment effects from round effects.

Lastly, our findings are drawn from a single context in rural Namibia, and our design captures a specific accountability structure. Villagers learn whether the leader allowed a vote, but cannot distinguish whether the leader followed the majority preference or decided independently. This creates ambiguous rather than absent accountability. We do not claim that all governance interventions operate under such conditions; settings with strong public deliberation or effective oversight constrain leaders more tightly. However, this information asymmetry is common in decentralized resource governance, and the hybrid institutional environment we study characterizes many pluralistic governance systems beyond sub-Saharan Africa. A veto-style pseudo-democracy design, where leaders observe the vote before deciding whether to follow it, would separate symbolic compliance from preference-learning and is a natural extension of the present design. Our design also captures a snapshot; elite capture of participatory institutions need not be permanent, as disadvantaged groups can develop counter-strategies over time (Lund and Saito-Jensen, 2013).

In conclusion, our study serves as a cautionary case. Financial incentives can alter behavior, but they do not automatically promote genuine democratic practices. They can, however, turn leaders committed to democratic practices into calculating performers. For international agencies and governments seeking to strengthen democratic and sustainable management of natural resources, our findings highlight the need for interventions that account for the motivations of the leaders they seek to influence. Rewarding the appearance of democratic procedures without verifying their substance risks entrenching the very governance gaps that conditionality is meant to close.

CRediT authorship contribution statement

Ivo Steimanis: Writing – review & editing, Writing – original draft, Visualization, Project administration, Formal analysis, Data curation, Conceptualization. **Esther Blanco:** Writing – review & editing, Writing – original draft, Supervision, Funding acquisition, Conceptualization. **Björn Vollan:** Writing – review & editing, Writing – original draft, Supervision, Project administration, Methodology, Funding acquisition,

Conceptualization.

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Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.ecolecon.2026.109177>.

Data availability

The data and code to replicate the results reported in this manuscript are available on GitHub (https://github.com/IvoSteimanis/payments_democracy).

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