The Politics of Perception: Information, Misbeliefs, and Civic Action in India *

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Abstract

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Citizen participation underpins accountable governance, yet remains scarce in many low-income settings even after ambitious transparency reforms. We study whether comparative performance information can prompt citizens to participate. A randomized video shown to 2,106 adults in 50 Ranchi villages revealed the district's low rank on development indicators on health, education, infrastructure and explained formal grievance channels. Treated villagers were 4 p.p. more likely to sign a petition and 8.4 p.p. more likely to attend a grievance workshop within a week; one month later they were 4.7 p.p. more likely to have met a civic official and 6 p.p. more likely to voice views on social media. The video corrected overestimated rank beliefs and raised programme awareness, yet left perceived efficacy of individual action unchanged. Participation rose mainly for respondents who overestimated their district's rank at baseline. A simple model with two belief components—(i) the gap between observed performance and an aspirational benchmark and (ii) perceived efficacy—explains why closing the first gap alone can lift participation. This study's findings apply to 180 million citizens in India's aspirational districts and similar low-income contexts.

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1 Introduction

Over two billion people live in countries where governments routinely under-deliver on basic public services (TheGlobalEconomy.com, 2024). Yet, citizens rarely file complaints, or use formal channels to demand better services for infrastructure, health, or schooling for children (Varieties of Democracy (V-Dem) Project, 2025; Our World in Data, 2025). To bridge this participation deficit, policymakers and donors have promoted a wide range of transparency programs designed to increase awareness about government performance and make shortcomings visible to ordinary citizens (World Bank, 2017, 2022). These initiatives rest on a simple argument that if citizens know how their locality is under-performing, they will press officials to improve. However, the findings to support this argument are mixed. In some settings, negative information activated citizen pressure and administrative response (Björkman and Svensson, 2009; Ferraz and Finan, 2008); in others, similar disclosures produced little change or even less participation (Banerjee et al., 2010; Casey et al., 2012; Jablonski et al., 2022). This variation poses a fundamental question for design of transparency programs: under what conditions does negative performance information actually lead people to act, and when does it instead remain unused?

In this paper, we argue that citizens' prior beliefs determine whether information about poor government performance leads to civic participation. In particular, we examine two critical belief dimensions that jointly determine motivation to participate. The first dimension concerns whether citizens believe that their own participatory actions (e.g. filing a complaint or raising grievances in village meetings), can plausibly influence the quality of public service delivery in their community. When citizens perceive low influence, they are less likely to engage in costly participatory actions (Acemoglu et al., 2013; Besley and Persson, 2020; Grossman et al., 2014; Alatas et al., 2012; Banerjee et al., 2010). The second dimension concerns whether citizens believe their government provides better services compared to other similar places. Citizens who are unaware of relative under-performance of their local government may lack the motivation to demand accountability, even when objective conditions warrant action (Das et al., 2015; Coffey and Spears, 2017). Conversely, if they already view the government as not performing well, receiving negative information may confirm their skepticism, reinforcing disengagement rather than greater participation.

We combine evidence from a large-scale field experiment and follow-up survey with 2,107 respondents across 51 villages in Ranchi district, India. Ranchi, with more than one million residents, faces persistent shortcomings in public service delivery and is part of India's largest national transparency initiative, the Aspirational Districts (AD) Program. This transparency initiative tracks and publicly publishes comparative performance data across 49 key socio-economic indicators for 112 underdeveloped districts across India (NITI Aayog, 2018). The AD program aims to foster inter-district competition regarding government performance on these indicators, and empower citizens to demand improvements from civic officials responsible for their district's development [1]. The program represents a major transparency effort at a national scale in India, yet its reach among citizens is extremely limited with lesser focus on media and outreach by the government. This setting is particularly relevant for studying how information on poor public service quality influences civic participation behavior within a government-led transparency

[1] See Section 2 for more details about the program

initiative. We focus on three performance indicators from this program to measure the quality of public services in Ranchi: i) share of severely underweight children under 6 years, ii) share of elementary government schools not complying with pupil-teacher ratio standards, and iii) habitations with access to all-weather roads in the district. The indicators were chosen for their relevance and interpretability to the general population, as well as the availability of data on the public dashboard.

Pre-intervention evidence yields four facts that motivate our intervention and analysis. First, citizens in our setting participate actively in community forums but rarely use formal accountability mechanisms. While village assembly attendance is high, fewer than 12% have ever filed formal complaints despite widespread dissatisfaction with public services. Second, while the awareness about schemes related to education, infrastructure and early child care is relatively higher, it remains starkingly low for the AD Program despite its scale. Less than 10% of the respondents had ever heard about this program in their district, and even fewer had ever seen the dashboard showing the performance data. Third, citizens perceive local public service quality as generally poor in their district, yet they believe it is superior to that of other districts. These misperceptions about their own district's rank compared to other neighboring districts, in the AD program are widespread and consequential. More than 75% respondents overestimate Ranchi's relative ranking on quality of public services on average [5]. Moreover, higher level of rank misperceptions correlate with lower levels of civic participation [7]. This gap between official statistics and popular perceptions provides an opportunity to correct these beliefs and assess the impact on subsequent civic participation behaviors. Fourth, while 90% of respondents believe citizens have little influence over public service delivery, this perceived lack of efficacy does not suppress participation. Citizens who doubt their influence participate as much as others, suggesting civic action serves as an outlet for expressing dissatisfaction rather than an expectation of large impacts on public service delivery [8] in our setting. We randomize the individuals in each village to watch a 7-minute video. Treatment video informs the respondents about: i) Ranchi being part of 112 under-developed 'Aspirational Districts' since 2018 as part of the AD Program, ii) their district's performance compared to the top performing district on each domain and iii) formal accountability channels related to government initiatives aimed at universal access to health, education, and infrastructure services. Control respondents view a neutral placebo video of similar length, on an unrelated historical topic. We report three main sets of results that speak to whether information can convert awareness into voice.

Our first set of results show that information generated lasting change in civic participation rather than temporary compliance. We first test whether citizens respond to comparative performance information by measuring immediate revealed participation in terms of i) signing online petitions aimed at the civic official in-charge and ii) registering for and attending workshops on using formal accountability channels, which were organized by a local NGO. Treated respondents were 4pp more likely to sign online petitions across health, education, and infrastructure issues, a significant increase compared to the control group (63%). Most strikingly, treatment increased workshop attendance by 8.4pp ($p<0.001$). While only 3.7% of the control group respondents came to participate in these workshops, 12.1% of the treated respondents did so. Participation in these workshops required genuine time investment and travel costs to learn the use of formal accountability channels for public service delivery complaints. To examine sustained behavioral

change, we track participation one month later across multiple domains. Treatment effects not only persisted, but strengthened. Treated respondents were 4pp more likely to want to file information requests, meet civic officials and use public complaint portals. They were 6pp more likely to express political views on social media, 3pp more likely to participate in the initiatives organized by the Civil Society Organizations. These immediate behavioral responses demonstrate that citizens do act in response to the information about quality of public services provided to them. Moreover, we find that citizens continued to be willing to participate in civic activities in the future, even one month after the intervention. Our intervention did not change the interest citizens had on politics, likelihood to switch their vote to another political party and other reasons to vote, indicating no effects on political participation or change in political preferences. We next examined if and how citizens learned from the information and through what channels the observed behavioral change operates.

Our second set of results show that the intervention generated substantial learning about quality of public service delivery. Immediately after watching the video, citizens corrected systematic misperceptions about their district's rank on the three service delivery indicators. They were 12-13 pp less likely to overestimate their district's relative rank on the share of severely underweight children and schools not complying with pupil-teacher ratio in their district. Overall, they were 0.37 SD less likely to overestimate the rank of their district after the intervention. Our intervention had no significant effects on beliefs about citizens' ability to influence government outcomes. This pattern of selective learning rules out enhanced confidence in democratic voice as an explanation, pointing instead to comparative performance correction as the primary mechanism driving participation increases. One month after the intervention, citizens were 20pp more likely to correctly identify Ranchi as part of the AD Program and 6-9pp more aware of other government initiatives mentioned in the video. Furthermore, they were 13.6pp more likely to be aware that AD Program encourages active participation from communities. However, the effects on posterior beliefs about district rank dissipated after one month, partly because of the control group catching up in learning about the district rank.

Our third set of results establish the prior beliefs about district's rank as the key driver of the observed civic participation behaviors. Treatment effects on revealed participation behaviors are primarily concentrated among respondents who initially overestimated Ranchi's performance—among this group, treatment increased workshop attendance by 11.1pp and petition signing by 5-6pp, while effects for other citizens who did not overestimate the district's rank were near zero. At one month, treated overestimators were 8.4 pp more likely to express political views on social media, 5pp more likely to talk to citizen groups and 6pp more likely to participate in civil society initiatives. This group also drove the learning effects, correcting their rank misperceptions by 0.22 units while showing no changes in efficacy beliefs. One could imagine that emotional drivers such as dissatisfaction from public service delivery or decreased trust in the government could also explain our treatment effects. We do observe that treated respondents reported lower satisfaction with local service delivery and reduced trust in state and local government institutions immediately after the intervention. However, these emotional responses follow the same heterogeneity pattern as participation behaviors–declines in satisfaction and institutional trust were concentrated entirely among overestimators who also drove the participation increases. This pattern reinforces that prior beliefs about comparative performance, rather than

general emotional reactions to negative information, constitute the primary mechanism driving civic engagement in our setting.

Why do citizens participate while having low efficacy beliefs to influence the government? We reconcile the evidence by defining two potential channels through which citizens respond to negative performance information. The *accountability channel* emphasizes that discovering larger-than-expected shortfalls in public service delivery relative to peers, generates urgency to demand corrective action, even when citizens doubt their individual influence. Citizens participate not because they expect to change outcomes, but because learning about poor relative performance creates psychological compulsion to respond through available institutional channels. The *hopelessness channel*, by contrast, predicts that when perceived efficacy is extremely low, citizens treat participation as futile regardless of shortfall magnitude, leading to withdrawal rather than mobilization when confronted with evidence of poor government performance. Our evidence strongly supports the *accountability channel*, where citizens participate despite the efficacy beliefs being low.

We rule out a range of alternative mechanisms and methodological concerns that could otherwise explain our treatment effects. One explanation could be that the intervention simply activated the citizens with already high participation levels at baseline, but we find no systematic effects on increase in revealed participation behaviors by this group. Second, social network density does not moderate results. The intervention did not promote participation only among those with strong organizational ties and did not lead to increased social ties one month after the intervention. Third, baseline awareness of government programs does not predict differential participation, indicating that prior knowledge about institutional channels is not the key constraint. Fourth, we find no effects on political preferences, vote choice intentions, or interest in politics, ruling out partisan mobilization as an explanation. We also test whether baseline perceived ability to influence government moderates effects and find no differential impacts by initial efficacy beliefs. These null results across potential moderators isolate belief correction about comparative rank as the distinguishing key factor between citizens who participate. We also rule out social desirability and experimenter-demand explanations. First, standard manipulation checks show no systematic differences in respondents' reporting tendencies or in their guesses about the study purpose. Second, the behavioral evidence is inconsistent with a demand-response story. Many of the key outcomes are revealed, low-bias actions taken after the interview and, in the case of workshops, independently verified. Moreover, heterogeneity results in treatment effects and a combination of other null responses is suggestive evidence that points away from demand-side reporting biases and toward genuine behavioral change induced by corrected comparative beliefs.

To rationalize these empirical results, we develop a simple theoretical framework that formalizes the *accountability channel* uncovered in our experiment. Citizens choose whether to participate in civic action by weighing expected benefits against private costs and intrinsic motivation of participation. The key insight is that perceived benefits depend multiplicatively on two belief dimensions: the performance gap between public service delivery by the current government and an aspirational benchmark, and the perceived marginal efficacy of individual action. This multiplicative structure captures expected payoff logic – the practical value of reducing a shortfall must be scaled by the likelihood that effort will realize that reduction. Citizens participate when

their expected utility from action exceeds the expected utility from not participation. The model generates three key predictions that align with our empirical findings. First, information can increase participation even when citizens feel individually powerless, because the multiplicative benefit structure means that either belief component can drive engagement. Second, information has the biggest impact on citizens near the participation margin—those with moderate baseline beliefs—while doing little for the highly disengaged or already mobilized. Third, the required magnitude of belief correction depends inversely on perceived efficacy: when efficacy is low but positive, sufficiently large performance gap corrections can still generate participation increases. The framework predicts heterogeneous responses based on baseline rank misperceptions, with overestimators showing the largest participation gains because they experience the biggest belief revisions while maintaining unchanged efficacy beliefs.

We estimate the model's structural parameters using our experimental variation as instruments to identify the causal effects of belief updating on participation decisions. In the model, the randomized information treatment provides exogenous variation in performance gap beliefs while leaving efficacy beliefs unchanged, allowing us to separately identify these two channels. We use maximum likelihood estimation to recover the distribution of baseline beliefs, intrinsic motivation parameters, and participation costs from observed choices and elicited beliefs. The estimated model enables counterfactual simulations comparing the effectiveness of alternative policy interventions by either i) correcting performance misperceptions versus ii) enhancing perceived efficacy through institutional reforms. Preliminary estimates suggest that belief correction interventions are most cost-effective when targeted toward populations with systematic over-optimism about government performance, supporting our empirical finding that information provision should be tailored based on baseline belief distributions rather than implemented universally. We do a simulation exercise to determine the participation probabilities under counterfactual interventions. We find that the beliefs about citizens' perceived ability to influence government outcomes would need to increase by approximately 68% of the estimated distribution mean to produce effects matching the magnitude of our short-run belief correction results. These findings highlight that correcting comparative performance misperceptions can produce substantial behavioral changes at relatively low cost, while alternative approaches targeting efficacy or institutional barriers may prove more resource-intensive to implement effectively. However, our results suggest that belief correction interventions could serve as a catalyst for generating both citizen demand and political support for such costlier institutional reforms. Citizens who discover their district's poor comparative performance may become more receptive to investing in enhanced grievance mechanisms, creating a pathway where information provision facilitates subsequent institutional improvements rather than serving as a substitute for deeper governance reforms.

This paper makes four primary contributions to our understanding of how information shapes civic participation in developing democracies. First, we provide novel evidence on the role of prior beliefs in determining effectiveness of transparency initiatives on public service delivery by bringing distinct citizen priors to the center of the analysis (Björkman and Svensson, 2009; Ferraz and Finan, 2008; Banerjee et al., 2010; Chong et al., 2015). While existing work documents substantial variation in the effectiveness of transparency interventions across contexts, the learning mechanisms underlying this heterogeneity remain poorly understood. We demonstrate

that the same informational intervention can produce opposite behavioral responses depending on citizens' baseline beliefs about comparative government performance. This finding helps reconcile conflicting evidence from the transparency literature by showing that intervention effectiveness depends critically on the distribution of citizen priors about service delivery rather than institutional features alone (Dunning et al., 2019). Second, we contribute a simple theory that places two belief components at the core of citizen participation: beliefs about comparative public-service performance and beliefs about the likely impact of one's own actions. Canonical political-agency and interest-group models emphasize information, media, and incentives for accountability, but they do not decompose citizens' beliefs as mechanisms that affect participation decisions Besley (2006); Besley and Burgess (2002); Acemoglu et al. (2013); Grossman et al. (2014). Third, we show that information-driven transparency initiatives can strengthen *civic*, non-electoral accountability in weak-institutional settings. This shifts the focus beyond electoral sanctioning Ferraz and Finan (2008) and complements community-monitoring evidence Björkman and Svensson (2009); Reinikka and Svensson (2005) by documenting how disclosure maps into day-to-day administrative engagement where electoral channels are limited Banerjee et al. (2010); Casey et al. (2012); Jablonski et al. (2022). Finally, we provide, to our knowledge, the first citizen-level evaluation of transparency effects within India's AD Programme, which covers roughly 200 million people NITI Aayog (2018) and comparable low-income settings globally.

Our findings have transformative implications for citizens of India's 112 Aspirational Districts and millions more in similar low-income contexts globally. The AD Program represents a huge transparency initiative, yet our study reveals it reaches fewer than 10% of citizens despite six years of operation. Our intervention—a 7-minute video delivered via tablet—costs approximately $1 per person and generated weakly sustained civic engagement lasting over one month. Scaling our approach across all aspirational districts could reach 180 million adults at a total cost of approximately $10 million dollars —less than 0.0085% of India's annual development budget. The intervention is scalable and sustainable as once districts record comparative performance videos, the marginal cost approaches to zero, making it viable for regular deployment through existing administrative channels. For global policymakers managing transparency initiatives worth hundreds of billions annually, our results demonstrate that targeted belief correction can cost-effectively unlock citizen demand for accountability where optimistic misperceptions persist.

The remainder of the paper is organized as follows. Section 2 provides background on the study and describes the AD Programme. Section 3 outlines the experimental design and the measurement of outcomes. Section 4 describes the study setting and presents descriptive statistics. Section 5 reports the main empirical results. Section 6 develops the theoretical framework. Section 7 presents the estimation of the model parameters. Section 8 concludes.

2 Background

2.1 Aspirational Districts Programme

The Government of India launched the 'Transformation of Aspirational Districts' (AD) Programme in January 2018 to reduce substantial inter-state and inter-district disparities in socio-economic development. The programme identifies 112 districts across 28 states, home to 250

million people, as "pockets of underdevelopment" and targets them for accelerated progress (Refer to Figure A.1) (NITI Aayog, Government of India, nd). The AD Program focuses on five key development areas: health and nutrition, education, agriculture and water resources, financial inclusion and skill development, and basic infrastructure.

The programme employs a composite index comprising 49 key development indicators across these five dimensions to monitor monthly social progress and rank districts based on their performance levels. Health indicators include infant mortality rates, stunting in children, and immunization rates, while educational metrics assess enrollment rates and learning outcomes. The government publicly publishes these rankings and performance data on a dashboard ([2]), fostering competition among districts, collaboration across government units, and convergence of various schemes while serving as a motivating factor for civic officials to promote district development.

The central and independent policy making body of India (*NITI Aayog)* designed the data collection methodology, which combines government administrative records, national surveys, and advanced technological tools including real-time monitoring systems and satellite imagery. This comprehensive approach is verified through cross-checking with local records, third-party audits, and independent agency validations to enhance credibility. The dashboard data has been updated regularly for six years, with some indicators refreshed quarterly to ensure timely progress reflection.

While significant progress has been observed in districts such as Nuh in Haryana (health and nutrition improvements) and several districts in Odisha (financial inclusion and infrastructure development), progress remains uneven with some areas still lagging in critical sectors. The Champions of Change dashboard enhances transparency and accountability through public accessibility, though challenges persist regarding effective access due to limited internet connectivity and statistical literacy among the Indian population. Additionally, public awareness remains constrained by minimal media coverage and limited efforts to inform residents of aspirational districts about their performance, particularly for under–performing areas.

The program's credibility is generally well-regarded among policymakers, development experts, and Non-Governmental Organisations due to transparent methodologies and verified data, with independent assessments by NITI Aayog and UNDP validating the data while identifying improvement areas. However, criticisms persist regarding potential local-level data manipulation, reliance on government records that may not reflect ground realities, uneven data quality across districts, and concerns about indicator selection and weighting. These challenges underscore the need for ongoing refinement and stakeholder engagement to enhance programme effectiveness and trustworthiness.

2.2 Civic participation in India

India offers citizens a dense architecture of accountability forums, ranging from village assemblies to national-level digital portals. The cornerstone at the village level is the village level meetings (*Gram Sabha*)—a statutory meeting of all adults where budgets, projects and local grievances are discussed. Its deliberative potential, however, depends on local leadership and

[2]The dashboard can be accessed openly by every citizen of India on this link.

citizen awareness, both of which are often weakest in poor and low-literacy districts. Above the village, District Collectors (Indian Administrative Service officers) coordinate programme delivery—housing, health insurance, food security, infrastructure and educational facilities—and must respond to petitions, public hearings and written complaints. These offices convert state policy into frontline action, making them the principal target of most rural grievances.

Citizens can audit frontline delivery through legally mandated *social audits*—most famously under the National Rural Employment Guarantee Scheme—which compare official records with ground reality; when audits are active, wages rise and project quality improves (World Bank, 2017). The 2005 Right to Information Act institutionalised data access, generating roughly five million RTI requests per year (Central Information Commission of India, 2020). Yet rural use remains hampered by low awareness and slow responses from information commissions. At higher administrative tiers, the online Centralized Public Grievance Redress and Monitoring (CPGRAM) portal routes complaints to the appropriate ministry and logged 1.5 million submissions in 2022 (Department of Administrative Reforms and Public Grievances, Government of India, 2022), while *MyGov* encourages crowd–sourced policy ideas and has attracted more than 20 million users (Government of India, 2023). Digital initiatives nevertheless confront the "last-mile" digital divide: patchy connectivity, limited smartphone ownership and low digital literacy, despite bridging schemes for rural areas such as *DigiGaon* (DigiGaon Foundation, 2023).

Formal channels coexist with informal channels. Social media amplifies urban voices, but rural citizens' participation is constrained by connectivity gaps and unfamiliarity with online networks.

Persistent barriers explain why these multiple platforms do not translate into widespread civic engagement. Poverty and opportunity costs discourage attendance at village meetings or travel to district offices; nearly 80% of rural households live on under 5,000 per month (Office, 2019). Political patronage can deter citizens from filing complaints that offend local elites. Finally, survey evidence shows widespread ignorance of rights and procedures, reinforcing bureaucratic inertia and the perception that "nothing changes" (Drèze and Sen, 2013).

Together, these frictions help explain why credible information—such as district rankings under the AD Program—can still be pivotal: it reaches poorly informed citizens, highlights misjudged service gaps and points to concrete redressal channels they rarely use. This context motivates our experimental design, which tests whether providing citizens with accurate performance data and procedural knowledge about accountability mechanisms can overcome the information barriers that typically constrain rural civic participation.

3 Experimental Setting and Design

3.1 Target Population and Study Setting

We study adult men and women above the legal voting age residing in rural Ranchi, Jharkhand, one of India's 112 "Aspirational Districts." Ranchi was selected as our study site for two reasons. First, awareness of the AD Program was extremely low at baseline: only 8% of respondents reported knowing about the program, making Ranchi a fertile setting to test the role of information. Second, although Ranchi is the capital city of Jharkhand, it exhibits stark rural–urban inequali-

ties, with sharp contrasts in access to infrastructure, education, and health outcomes between its urban core and rural peripheries (Office of the Registrar General Census Commissioner, India, 2011; Government of Jharkhand and UNDP India, 2018; NITI Aayog, 2018). Wealth, infrastructure, and government presence are concentrated in urban Ranchi, while rural areas face deficits in public services, poor connectivity, and limited voice in governance.

The social composition of Ranchi further underscores the importance of studying civic engagement in this context. Large tribal communities, including the Munda, Oraon, and Santhal, form a significant share of the population and are officially recognized as Scheduled Tribes. According to the 2011 Census, Scheduled Tribes account for 35.8% of Ranchi's population and Scheduled Castes account for 5.4% (Office of the Registrar General Census Commissioner, India, 2011). These groups, alongside Backward Castes, have historically faced structural disadvantages in education, health, and access to state institutions. Understanding their beliefs about government and their modes of participation is therefore especially salient.

Ranchi district has 57% of its population in rural areas, 49% female share, and a rural literacy rate of 67% (Office of the Registrar General Census Commissioner, India, 2011). Agriculture, construction, and manufacturing remain the primary sources of employment (National Statistical Office, Ministry of Statistics and Programme Implementation, Government of India, 2020). While Ranchi is resource-rich and urbanizing, the persistence of socio-economic inequalities makes its rural population a critical population for understanding citizen engagement with government.

Ranchi also represented a relatively feasible setting to implement such an intervention, given the logistical constraints of fieldwork in Jharkhand.

3.2 Sampling

We conducted surveys in 51 rural villages across Ranchi. In total, 2,106 respondents consented to participate in the full study. Respondents who dropped out at any stage were excluded, and their observations discarded. Recruitment followed a systematic door-to-door procedure: enumerators approached every fourth household after a random starting point within each village.

Sampling was stratified by gender, targeting a 50/50 male–female split, but daytime male out–migration led to a realized sample of 45% men and 55% women. We do not re–weight to achieve exact parity, acknowledging that absent men may differ systematically from those reached.

3.3 Experimental Design

The experimental design is illustrated in Figure A.4. Data collection was implemented by our data collection partner, with surveys programmed on KoboToolbox servers hosted at the Norwegian School of Economics (NHH). The baseline survey lasted approximately 40–60 minutes and elicited respondents' prior beliefs about government performance, their history of civic participation, sources of information, and other relevant socio-political attitudes. Key variables—such as perceived government effectiveness, civic engagement norms, and trust in institutions—were measured using Likert scales and structured multiple-choice questions.

Immediately following these baseline modules, respondents were randomly assigned at the individual level to either the treatment or control group. Randomization was pre-programmed

into the survey instrument to prevent enumerator discretion. Treated respondents watched an informational video, while control respondents watched a placebo video unrelated to governance or civic participation (see Section 3.4 for details). Both videos were embedded directly into the survey interface, ensuring standardized delivery and minimizing risk of interference.

After the video, the survey continued with short filler modules (consumption, employment, and socio-economic conditions; typically 5–10 minutes) before eliciting posterior beliefs about government performance and measuring immediate civic outcomes. These outcomes included willingness to participate in civic actions, support for hypothetical engagement scenarios, and stated intentions to use available accountability mechanisms. The integrated design, in which baseline measurement, randomization, and immediate outcome elicitation occurred in a single sitting, reduced risks of cross-respondent contamination and recall biases that might have arisen had the intervention and survey been separated across visits.

We acknowledge that immediate measurement may introduce biases related to experimenter demand or social desirability. These concerns are discussed in Section 6.1.

To situate our study relative to major political events in India, Figure 1 presents a timeline of survey implementation and contextual milestones.

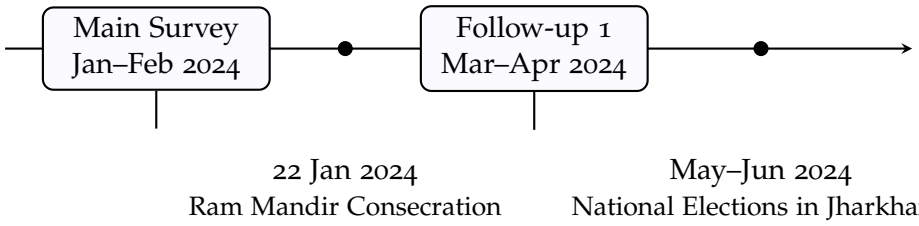


Figure 1: Timeline of Survey Implementation and Political Events

3.4 Intervention

The intervention was designed to inform respondents about their district government's performance and institutional channels for demanding accountability. The treatment consisted of a 7 minute informational video presenting evidence on Ranchi's low rank compared to its neighboring districts within the AD Program. It then sketched the main grievance-redress channels and sectoral schemes (education, health, infrastructure) through which citizens can press for improvements.

Respondents were informed that the AD Program, launched in January 2018, targeted 112 of India's least-developed districts, including Ranchi, with the stated aim of accelerating improvements in service delivery. The video highlighted Ranchi's rank relative to five neighboring aspirational districts—Ramgarh, Khunti, Lohardaga, Hazaribagh, and Gumla.[3]

The video focused on three development indicators: (i) the share of underweight children under six, (ii) the share of schools not meeting the Pupil–Teacher Ratio norm, and (iii) the share

[3] According to the 2011 Census of India, Ranchi was the most populous of these districts, with 2.91 million residents, compared to 0.95 million in Ramgarh and 0.53 million in Khunti. Ranchi was also more urbanized than Khunti or Gumla, which remain overwhelmingly rural. Scheduled Tribes account for 35.8% of Ranchi's population, compared to 73.3% in Khunti and 68.9% in Gumla. Literacy rates were relatively higher in Ranchi (76.1%) than in its neighbors. These socio-economic contrasts shaped respondents' priors and informed the interpretation of the intervention.

of habitations lacking access to all-weather roads. While the AD Program tracks 49 indicators across five themes, these three were chosen because they are directly relevant to rural households' lived experiences, easily interpretable, and consistently available across districts and years.

Performance data were scraped from the official public dashboard (2018–2024). Using these data, we constructed district-level rankings based on the underlying levels of performance. For instance, in 2023 Ranchi recorded four underweight children per 100 under the age of six, compared to only one child per 100 in the top-performing neighboring district. Ranchi was therefore ranked fifth in the health category. Respondents were explicitly shown this type of comparison: "in your district, 4 out of 100 children under six are underweight, while in the best-performing district, only 1 out of 100 children under six is underweight." Figure 2 provides a screenshot from this visualization. In addition to the 2023 cross-sectional comparison, the video also illustrated how Ranchi's relative rank had declined since the launch of the program in 2018.

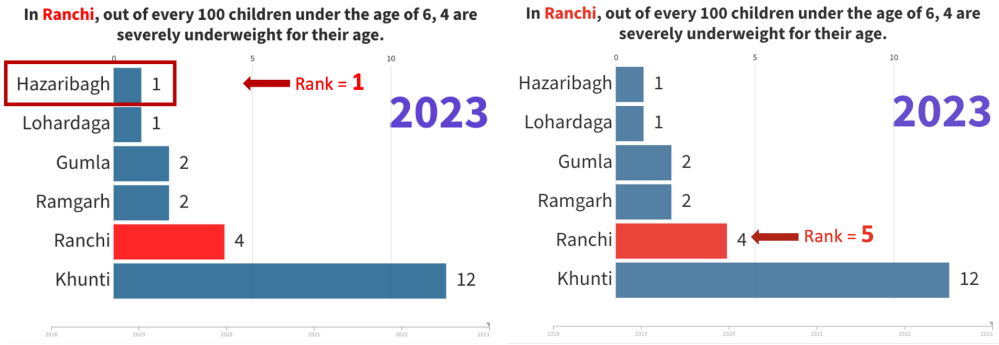


Figure 2: Treatment video screenshot: Ranchi's rank in health, 2023

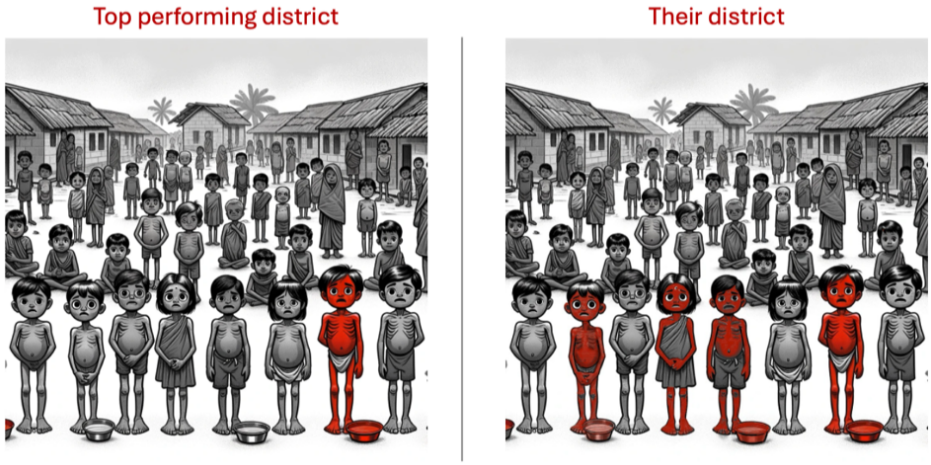


Figure 3: Treatment video screenshot: Top district vs. own district on Underweight children per 100, 2023

The video further contextualized why these indicators matter for welfare: child malnutrition as a cause of infant mortality and long-term cognitive deficits; inadequate pupil–teacher ratios as a barrier to learning; and poor road infrastructure as a constraint on access to health facili-

ties, schools, and markets. To reinforce salience, the video combined bar charts with visual clips of rural landscapes, classrooms, village roads, and depictions of child malnutrition. Prior evidence suggests that visual formats such as videos improve comprehension and make statistical information more relatable than text alone (Bobek and Tversky, 2016). The use of video was therefore a deliberate design choice intended to maximize engagement and facilitate information absorption.

In addition to reporting district's performance, the video highlighted specific rights-based government programs relevant to each sector. For education, it referred to the Education for All Mission (*Sarva Shiksha Abhiyan*), which guarantees universal access to elementary education; for health and nutrition, it described village-level childcare and nutrition centers (*Anganwadis*) targeting young children and mothers; and for infrastructure, it referred to the Prime Minister's Rural Road Scheme (*Pradhan Mantri Gram Sadak Yojana*), which guarantees road connectivity for rural habitations. Respondents were also informed about mechanisms to demand accountability, including the "My Road" (Meri Sadak) mobile application for road quality complaints, the RTI Act, and CPGRAM. They were shown which civic officials cater to which responsibilities—such as the village council (Gram Panchayat), village assembly (Gram Sabha), Block Development Officer, and District Collector.

The control group (C) watched a placebo video of similar length and production quality, presenting a neutral educational overview of the archaeological discovery of *Dholavira*, a site of the Indus Valley Civilization in Gujarat. The control video ensured that any treatment effects could be attributed to the informational content rather than the experience of watching a video. Both videos were approximately seven minutes long.

Videos were embedded directly in the electronic survey software, ensuring that enumerators could not influence assignment. Respondents watched them privately, using headphones, on survey tablets. Videos were delivered in Hindi language. [4] This standardized delivery minimized enumerator bias. A small pilot was conducted prior to the main survey to confirm comprehension of the treatment video.

3.5 Measurement

Civic participation. We measured both stated and revealed forms of civic participation immediately after watching the video and again four weeks later. Before watching the video, respondents reported whether they had ever engaged in a range of civic activities, including: attending village assemblies (Gram Sabhas), meeting civic officials and frontline service providers (e.g., village secretaries, district officials, teachers, or health workers), filing complaints on government portals, submitting Right to Information (RTI) requests, using social media to express opinions about government, donating to citizen-organized events, participating in election rallies, and voting in national elections. These measures capture both collective activities and individual use of institutionalized accountability mechanisms.

To assess impacts of the intervention, we also elicited forward-looking willingness to participate. A few questions after watching the video, respondents stated whether they would be

[4] Approximately 9.3% of treatment respondents and 18.4% of control respondents watched the video for less than seven minutes ($p < 0.001$).

willing to engage in various civic activities in the future (excluding partisan politics). In the same module, we recorded intended vote choice in upcoming national elections.

We complemented these stated measures with revealed participation opportunities. All respondents were asked if they wanted to (i) sign petitions addressed to the District Magistrate highlighting deficiencies in malnutrition, roads, and pupil–teacher ratios; and (ii) register their name for participating in a workshop, organized by a partner NGO, on how to use the official grievance redressal portals. Petitions could only be signed after the respondent had read through the text ([5] Attendance at the workshops was tracked and recorded as an objective measure of revealed participation.

Finally, one month after treatment, we re-interviewed households to document whether they had engaged in any of the participation activities, focusing on non-electoral channels such as meetings, complaints, and donations.

To summarize these multiple dimensions into a single outcome, we construct a latent index of civic participation using Bartlett factor scores, which provide consistent estimates of the underlying participation construct by accounting for correlations across items (see, e.g. Attanasio and Kaufmann (2009)). This approach allows us to speak meaningfully about overall participation rather than interpreting each activity in isolation.

Beliefs. We elicited prior beliefs on district performance on relative ranking of their district. Respondents were asked to rank Ranchi compared to five neighboring districts on three indicators drawn from the AD Program dashboard: (i) the share of underweight children under age six, (ii) the share of primary schools not meeting pupil–teacher ratio norms, and (iii) the share of habitations lacking access to all-weather roads. For example, to elicit rankings on malnutrition, the survey asked: *"In 2023, where is Ranchi compared to these five neighboring districts in terms of young children under six who are very underweight for their age? A rank of 1 means the district with the fewest underweight children, and a rank of 6 means the district with the most."*. To improve attentiveness and ensure truthful reporting, these priors were incentivized. Respondents were informed that if at least half of their answers fell within ± 1 rank of the official AD Program statistics, they would be entered into a Rs. 10,000 lottery (equivalent to roughly half of monthly household consumption), with ten winners selected across the sample [6].

We define *misperception* as the difference between a respondent's subjective rank and the official AD Program rank (i.e., Prior Belief – Truth), and construct an average misperception index across the three domains. Posterior beliefs were elicited on the same dimensions, both immediately after the intervention and at endline one month later, using the same incentivization scheme.

In addition, we measured citizens' perceived ability to make a change in government performance. At baseline, respondents were asked whether they believed that "People like me can influence how well the government delivers public services in my district." After the interven-

[5] For respondents who couldn't read, enumerators read the text and explained its meaning.

[6] We also elicited performance beliefs about the levels for the same domains. For example, respondents were asked: *"Out of 100 children under age six in Ranchi in 2023, how many do you think are underweight?"*. These responses were incentivized if they fell within $\pm 5\%$ of the official AD Program figures. Nearly 90 percent of respondents substantially overestimated these values. We emphasize relative rank beliefs in the main analysis as level-based performance beliefs play a limited role in explaining the results on the participation outcomes. See Appendix Table for details D.5.2.

tion, we further probed related beliefs: whether respondents agreed that (i) people like them have no influence over what the government does, (ii) public services cannot improve when a single citizen demands change, and (iii) only mass collective actions affect government while individual voices do not. These items allow us to capture both baseline and post-intervention variation in perceived influence.

3.6 Context

This section outlines the social, economic, and political environment in Ranchi prior to the intervention, highlighting key patterns that situate the experimental results.

Demographic characteristics Respondents in our sample are, on average, 36 years old, and 54 percent are female. Educational attainment is limited: while 75 percent report completing some formal schooling, only 35 percent progressed beyond the secondary level. Marital rates are high, with roughly 85 percent married at baseline. The sample is drawn largely from marginalized groups: 37 percent of respondents belong to Scheduled Tribes, 33 percent to Other Backward Classes, 13 percent to the General category, and 5 percent to Scheduled Castes; the remainder identify with smaller caste groups. Hinduism is the dominant religion (86 percent). Average household size is just under five members, and fewer than 10 percent of respondents migrated from other districts. A sizeable minority have visited neighboring districts—Gumla, Khunti, Hazaribagh, Ramgarh, Lohardaga—providing at least some exposure to cross-district conditions (Table A.1).

Economic life is concentrated in low-skill, agrarian work (Table D.40). Just under 60 percent of respondents report ever undertaking an income-generating activity, with a marked gender gap: 60 percent of men versus 40 percent of women. Agriculture and casual wage labor dominate, with 17 percent identifying as farm workers (including agricultural laborers and tractor drivers). Men are more than twice as likely as women to engage in farm labor (22 percent vs. 13 percent), while women are disproportionately concentrated in unpaid household work, consistent with broader patterns of gendered economic participation in rural India. Average household consumption is INR 19,000 per month, underscoring modest living standards. Social networks are dense. Respondents engage with 3-7 people on average for discussing politics, malnutrition, infrastructure, and schooling (Table A.5).

Civic and electoral participation Patterns of civic engagement reveal both activity and constraint. Electoral participation is nearly universal: more than 90 percent of respondents report voting in the most recent national election, most commonly citing the candidate's party, campaign promises, and the perceived development of the district as their primary motivations (Table A.7). Collective participation is also widespread. Eighty-two percent attended a village assembly (Gram Sabha) in the past year, and roughly half interacted with frontline service providers such as schoolteachers or health workers (Table A.6).

By contrast, participation in more institutionalized accountability mechanisms remains strikingly limited. Only 10 percent of respondents have ever filed a Right to Information (RTI) request, 15 percent submitted a grievance on an official portal, and fewer than 20 percent report participation in initiatives by Non-Governmental and Civil Society Organizations (Table A.6).

Active membership in political parties is similarly rare, with fewer than 15 percent of citizens engaged. These figures indicate that while collective and electoral forums attract broad participation, citizens make little use of formal redressal systems designed to hold government directly accountable.

When asked how government accountability could be strengthened, respondents expressed broad demand for institutional improvements. Seventy-four percent endorsed stronger grievance-redressal systems, 53 percent favored greater transparency, 47 percent highlighted the need for direct citizen participation in policy, and 46 percent supported enhanced monitoring, evaluation, and feedback mechanisms (Table A.9). This gap—between expressed concern for accountability and the limited use of mechanisms to enforce it—provides the motivation for our intervention, which seeks to both correct misperceptions of government performance and lower barriers to engagement with formal grievance systems.

Beliefs and Awareness Awareness of the AD Program was extremely limited at baseline: fewer than 10 percent of respondents had heard of it (Table A.4). By contrast, awareness of local government programs was nearly universal—92 percent reported knowing about village childcare centers (Anganwadi) and 79 percent of education schemes—underscoring that visibility depends on local delivery rather than national dashboards. Despite low awareness of AD Program, confidence in government statistics was relatively high: 68 percent of respondents reported trusting official data. Respondents reported relying primarily on peers (87 percent) and Gram Panchayats (83 percent) for information about the country and the world, while television (54 percent), newspapers (42 percent), and internet or social media (70 percent) also served as important complementary sources (Table A.4).

On the relative ranking beliefs, misperceptions were systematic. Nearly three-quarters of respondents placed Ranchi higher than its actual standing on at least one dimension, typically by one to two positions (Table 4; Figure 5).

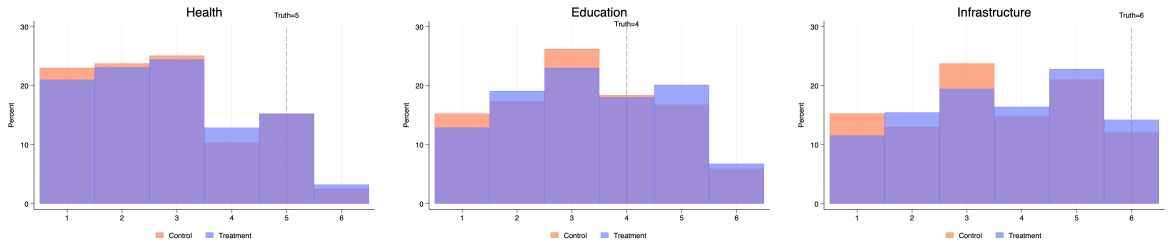


Figure 4: Distribution of beliefs about district's rank for Health, Education and Infrastructure by treatment group

Figure 5 shows that the average misperception across these three domains is sharply skewed to the right, with most respondents perceiving Ranchi to be performing substantially better than it actually is.

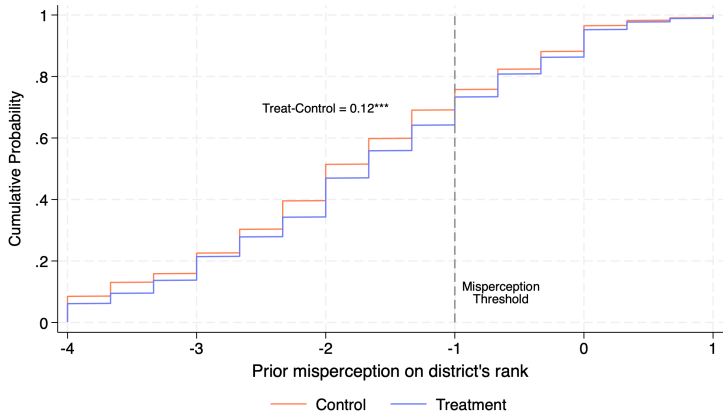


Figure 5: Cumulative Distribution of average misperception (Belief-Truth) by treatment group

Ability to make a change. Roughly 93 percent of respondents agreed that individual actions such as voting can change which government is in power. At the same time, nearly 90 percent agreed that they cannot influence the day-to-day delivery of public services (68.7 % moderately/strongly agreed), underscoring a clear divide between the perceived ability to change who governs and the perceived inability to influence the quality of services those governments provide.

When asked about freedom to act, over 90 percent of respondents stated that they could report issues or participate in protests without fear, indicating that civic engagement is not constrained by repression or fear of backlash from the government/ community (Table A.2).

3.6.1 Correlates and Validation (pre–intervention)

We validate our measures by relating them to pre–intervention civic participation and other baseline characteristics. The outcome is the standardized latent Bartlett factor aggregating individual and collective activities (RTI filing, portal complaints, petitions, Gram Sabha attendance, meetings with officials, etc.). We first select the potential predictors of the overall civic participation from a range of baseline characteristics such as demographics, experience with organizations, beliefs, social networks etc. using the elastic net regressions. Then, we use the selected predictors from elastic net regressions to predict the characteristics, shown in Figure A.5, with 90 and 95% CIs. Coefficients are associations, not causal effects.

Who participates at baseline? The strongest positive correlates of participation are experience with political activities, awareness and beliefs about government performance (Figure A.5). Having an interest in politics, experience of undertaking any electoral activity, and membership in community/associational groups are all positive predictors of civic participation at baseline. Exposure to governance frictions such as reporting that one has *witnessed* bribe taking, is also strongly positive. Trusting government statistics and reporting more sources of information are both associated with higher participation. Socioeconomic position is modestly predictive: being ever employed, being the household head, and years of schooling carry positive associations; wealth is small and imprecise. Migration status is positively correlated with participation.

Beliefs line up with this pattern. Crucially for our design, *rank misperception* (placing Ranchi too high relative to neighbors) is negatively associated with participation, even conditional on the rich set of covariates. By contrast, the belief that citizens have no influence over day-to-day public service delivery does *not* depress participation once we condition on covariates; if anything, its conditional association is weakly positive in the pooled index. Intuitively, citizens who see limited personal leverage may still participate precisely because they view greater participation as the only pathway to influence.

Importantly, standard demographics are not the drivers: age, caste, sex are statistically negligible once the informational and political variables are included; marital status is at most weakly negative. See Figure A.5.

Who is misperceived at baseline? We next regress the *average rank misperception* index on the same baseline covariates (Figure A.6). Several patterns emerge. First, civic connectedness correlate with *more* overestimation: being a member of the organizations (e.g. farmer unions, political parties) are positively associated with misperceptions on the district rank. Second, being more aware about government programs and statistics does not eliminate relative misperception on district ranks—if anything, the composite awareness index is weakly positively correlated with misperceptions —whereas *trust* in official statistics and having visited other districts are associated with *less* misperception. Experience of participating in electoral activities (e.g. assisting in a political party campaign, attending a political rally) is negatively related to being misperceived. Education and wealth show small, imprecise relationships; again, age and sex are not meaningful predictors once the broader set is included.

3.6.2 Facts

The baseline evidence yields four facts from the setting that guide our analysis.

1. *Citizens participate, but mostly through collective rather than institutional channels* Electoral turnout and village assembly attendance are near-universal, indicating that citizens are not disengaged. Yet formal accountability avenues—such as grievance portals, RTI requests, or direct visits to officials—remain of limited use. Participation is thus skewed toward community forums rather than institutionalized redressal mechanisms.

2. *Awareness about the transparency program is very low*. Citizens are much more likely to be aware about other flagship government schemes for provision of roads to everyone (68%), right to education for all (80%) and childcare centers (92%). However, awareness about the AD Program, remains starkingly low (10%).

3. *Misperceptions about district performance are widespread and consequential.* A large majority of respondents overestimate Ranchi's relative rank compared to neighboring districts. These misperceptions are systematically correlated with lower engagement in accountability mechanisms: those who believe Ranchi is doing better than it is are the less likely to engage in civic participation activities.

4. *Perceived lack of influence does not suppress participation.* Most respondents report little confidence in their ability to influence public service delivery. Yet this view does not trans-

late into civic disengagement. On the contrary, those who feel excluded from day-to-day decision-making often participate as much—or more—than others, consistent with civic action serving as an outlet to express dissatisfaction with government performance.

Together, these facts establish an active but misinformed citizenry in our sample. Citizens care about development and participate in community forums, but their distorted perceptions of relative performance appear to depress engagement with accountability mechanisms.

4 Estimation of main treatment effects

We estimate the causal effect of treatment on outcomes of interest using a specification that combines rich baseline controls with the double selection Lasso procedure of Belloni et al. (2014). This approach is particularly well-suited in our context, where we observe a large set of potential covariates. We always control for baseline civic participation and prior beliefs about government performance. Other factors such as demographic characteristics, socioeconomic indicators, political attitudes, voting preferences, social networks, source of information, awareness, fairness beliefs, beliefs about attribution of poor government performance, enter via double lasso selection. The double Lasso ensures that our estimates of treatment effects are not biased by overfitting or omitted-variable bias, while retaining a parsimonious set of controls most predictive of both treatment and outcomes.

Our main estimating equation is:

$$Y_{ij} = \alpha + \beta T_{ij} + \gamma' X_{ij} + \theta_v + \theta_e + \epsilon_{ij}, \tag{1}$$

where Y_{ij} denotes the standardized outcome for individual i in village j, T_{ij} is an indicator for treatment assignment, X_{ij} is the set of selected controls, and θ_v and θ_e are village and enumerator fixed effects, respectively. Standard errors are clustered at the village level, to allow for arbitrary intra-village correlation in outcomes, given that we performed a two-stage sampling procedure: first sampling the villages and then performing individual level randomization within villages Abadie et al. (2023).

Multiple Hypothesis Testing Because we estimate treatment effects across a broad set of outcomes, we correct for multiple hypothesis testing using the Romano–Wolf step-down procedure (Romano and Wolf, 2005). This method controls the family-wise error rate and is well-suited for settings with correlated outcomes. To avoid double counting, we exclude "overall" index outcomes from the correction set, as they are linear combinations of subcategory outcomes already tested individually.

5 Results

5.1 Do citizens participate when informed?

The results show a consistent pattern: the intervention motivates citizens to participate, both immediately after watching the video and in the medium run. Immediately after the intervention,

treated citizens were 4 pp more likely to sign online petitions targeted to the District Magistrate (B). Most strikingly, we find a 3pp increase in registration for the workshops and 8pp increase in attendance to those workshops, in person ($p < 0.001$). These revealed behaviors provide direct evidence that the intervention translated into costly civic actions. (see Table 1).

One month after the intervention, these effects on stated participation behaviors persisted. Treated respondents reported higher participation across both individual and collective domains, with increases of 0.16 SD and 0.10 SD in the respective indices (Table 3). At the individual level, citizens in the treatment group were 4.7 pp more likely to file/plan to file a Right to Information (RTI) request and 6 pp more likely to express political opinions on social media. At the collective level, treated respondents were 4 pp more likely to have met a civic official in the past month. They were 3 pp more likely to have participated in the initiatives organized by the civil society organizations. These results suggest that the intervention translated into tangible forms of engagement with formal accountability mechanisms and public officials.

Complementing these behavioral outcomes, Panel B of Tables D.6 and D.7 shows that willingness to participate remained high after one month, albeit attenuated in magnitude, suggesting that the intervention sustained citizens' orientation toward engagement beyond the survey setting.

We don't see a change in political participation behaviors through our intervention. Table (D.5) shows information about whether citizens in the treatment group increased their interest in politics, changed their voting preferences for any political party and reasons why they would vote for the political party. These findings substantiates the claim that our intervention effectively boosted participation in non-political accountability. This occurred without changing the existing political preferences for holding officials accountable.

5.2 Do citizens learn from the information?

We next turn to whether citizens learned from the credible information provided by the intervention. The intervention generated substantial learning on the precise dimensions it targeted.

First and most importantly, citizens substantially revised their beliefs when presented with credible evidence. Immediately after the intervention, treated respondents were 12–13 pp less likely to misperceive their district's rank across health and education domains (Table 4, Panel A). The average rank misperception bias also significantly declined, showing that the individuals substantially revised their beliefs about their district's rank. These corrections, however, dissipated by the one-month follow-up, suggesting that learning effects on relative rank were sharp but temporary.

Second, we find strong effects on awareness of AD Program and other government programs. One month after the intervention, treated respondents were 20 pp more likely to correctly identify Ranchi as part of the AD Program, and 6–9 pp more likely to be aware about specific initiatives mentioned in the video, such as child healthcare centers (*Anganwadis*), Right to education (*Sarva Shiksha Abhiyan*), and the Village Road Development scheme (*Pradhan Mantri Gram Sadak Yojana*) (Table 6). They were 16.6 pp more likely to understand the aim of the AD Program was to accelerate development of most under–performing regions in India and 3 pp more likely to know that the statistics regarding public service delivery is regularly published on the public dashboard. By contrast, there was no effect on awareness of unrelated macroeconomic or development statistics,

reinforcing the interpretation that respondents were selectively absorbing information.

By contrast, we do not observe changes in beliefs about citizens' ability to effect change in service delivery, both immediately and one month after the intervention. Table 5 shows no treatment effect on whether respondents believed citizens like them can influence public service delivery in their district. The efficacy index remains unchanged, suggesting that while the intervention shifted perceptions of government performance, it did not alter beliefs about citizen agency.

Finally, broader civic environment beliefs remain unchanged. Respondents' views on whether officials are corrupt, whether citizens are free to organize and participate in protests, raise their voices without fear and whether elections allow voters to remove an under-performing government do not differ between treatment and control group (Table D.13).

Overall, citizens learned in two key dimensions. They corrected misperceptions about their district's rank—at least in the short run—and retained greater awareness of relevant government programs and service gaps. At the same time, their beliefs about citizen efficacy remained unchanged, indicating that the intervention primarily shaped recognition of service delivery gaps rather than expectations about their own ability to influence government.

Crucially, the video didn't just inform citizens *what* the performance of the district was —it also showed them *how* to respond. While we don't directly measure procedural knowledge about filing complaints or contacting officials, the sustained increases in precisely these behaviors strongly suggests citizens absorbed this information.

5.3 Heterogeneity on participation

5.3.1 Estimation

To identify the groups driving treatment effects, our primary estimation equation is:

$$Y_{ij} = \beta_1(T \times Overestimator)_{ij} + \beta_2(T \times NotOverestimator)_{ij} + \beta_3 Overestimator_{ij} + \Gamma X_{ij} + \theta_v + \theta_e + \epsilon_{ij}$$

where $Overestimator_{ij}$ indicates whether respondent i in village j overestimated Ranchi's rank. Citizens are classified as "overestimators" if they overestimate their district's rank by more than one position on average across the three service delivery domains. We calculate each citizen's average misperception as the difference between their stated belief about Ranchi's rank and the true AD Program rank (misperception = prior belief - true rank), then classify those with average misperception less than -1 as overestimators.

The coefficient β_1 captures treatment effects among citizens who overestimated their district's rank on average, while β_2 measures effects among those with realistic or underestimated rank beliefs. X_{ij} is the set of selected controls, and θ_v and θ_e are village and enumerator fixed effects, respectively. Standard errors are clustered at the village level, to allow for arbitrary intra-village correlation in outcomes. To isolate heterogeneity along the rank belief dimension, we estimate a specification that controls for treatment interactions with other relevant baseline belief measures.

5.3.2 Who participates?

The civic response is driven by the citizens who began the experiment with the greatest scope for learning—those who initially overrated their district's standing on health, education, and infrastructure. The treatment raised workshop attendance by 11.1 pp and online-petition signing by 5–6 pp among over-estimators, while the same coefficients for accurately informed citizens are near zero and statistically indistinguishable from the control mean (Table 9). The gradient persists and shifts toward higher-effort actions at one month. Treated overestimators are 8.4 pp more likely to express views about politics or government performance on social media, 5 pp more likely to talk to citizen groups, and 6 pp more likely to participate in initiatives organized by civil society organizations (Table 10;Table 11).

Why does this group act? They are also the primary respondents who revise their comparative assessments. After watching the video, overestimators correct their rank beliefs sharply. Misperception bias falls by 0.22 units among those who overestimated their district's rank at baseline (Table 12). Importantly, the treatment does not differently affect the beliefs about ability to make a change for this group (Table 13).

We also conducted a series of heterogeneity checks to check if other groups participate more. First, treatment effects on civic participation behavior do not vary between the educated (any formal education) and uneducated group (Table **??**). If information-processing capacity mattered, we would expect larger effects among the better educated. Second, effects are not concentrated among citizens who were already well-engaged at baseline [Table D.27] . If the intervention simply activated "civic types," treatment effects would be much stronger for this group, but they are not. Third, density of social networks does not moderate the results. The video did not promote participation behaviors only among those with strong network ties or organizational memberships (Table D.29). Treatment effects are also statistically similar for citizens with above- and below-median awareness of government programs (Table D.28) [7]

6 Mechanisms

How did a single informational video generate sustained increases in civic participation? We argue that citizens underwent a predictable psychological process in which citizens who discover their beliefs about district's rank are overly optimistic undergo an emotional transformation that catalyzes democratic engagement.

Rather than simply absorbing information passively, they learned from the information, updated their prior beliefs about government performance and increased awareness about government programs. This learning process generated emotional reactions that motivated civic action, consistent with research showing that belief updating often triggers affective responses

[7]One could be considered that the variation we capture in the "Overestimators" group simply proxies for absolute-level beliefs rather than beliefs over the rank of the district. We check heterogeneity by level beliefs and examine whether the effects of relative rank beliefs vary by level beliefs using triple interactions that stack relative-rank misperceptions with level beliefs. These specifications show no additional explanatory power for participation, indicating that participation behavior does not vary by these belief combinations (detailed results in section **??**. Taken together with the placebo heterogeneity tests above, the evidence isolates belief correction on the rank dimension as distinguishing the groups that participate most from those that remain largely unresponsive, with level beliefs playing no independent role in explaining differential treatment responses ().

that influence subsequent behavior (**?**Eil and Rao, 2011).

Treated respondents reported lower satisfaction with local service delivery and reduced trust in state and local government institutions immediately after the intervention. The heterogeneity findings extend to these results—declines in satisfaction and institutional trust were concentrated entirely among Overestimators [Tables 15, 16]. This pattern aligns with broader findings on how citizens respond to unflattering information about government performance (Ferraz and Finan, 2008; Banerjee et al., 2011).

Why do citizens participate despite unchanged efficacy beliefs? The intervention's most striking feature is that citizens increased participation while continuing to believe they have little ability to influence government outcomes. This apparent puzzle points to two potential channels through which relative rank corrections motivate civic engagement: a hopelessness channel or an accountability channel. The accountability channel emphasizes that discovering a larger-than-expected shortfall relative to peers generates an urgency to correct it—a retrospective-accountability logic in which comparative information alters the salience of grievances and provokes costly action even absent a newfound sense of agency (**??**). The hopelessness channel emphasizes that when perceived efficacy is very low, individuals treat participation as futile and withhold costly action regardless of how large the shortfall appears; this aligns with classic collective-action and civic-voluntarism insights on free-riding and perceived capacity to influence (**???**).

Under a *hopelessness channel*, learning about poor comparative performance would discourage citizens by reinforcing their sense of powerlessness. If citizens believed their district's problems were intractable or their voice meaningless, we would expect reduced participation following the revelation of poor relative standing. Citizens would withdraw from civic life upon confirming their suspicions about government inadequacy.

Our evidence instead supports an *accountability channel*. Citizens participate not because they believe they can change outcomes or because they perceive participation differently, but because discovering their district's poor relative performance creates a psychological compulsion to act. The comparative ranking provided by the AD Program proves crucial—citizens respond to learning that their district lags behind comparable neighbors.

This relative deprivation generates an emotional response that seeks outlet through available institutional channels, even when citizens remain skeptical about their individual influence and unchanged in their assessment of participation costs and benefits. The mechanism operates through the shock of comparative disadvantage rather than through rational recalculation of participation incentives. Citizens channel their emotional response into the specific accountability mechanisms highlighted in the video because these provide concrete ways to respond to their newfound awareness, not because they suddenly view these actions as more beneficial or less costly than before.

6.1 Alternative mechanisms

Several alternative explanations are unlikely to account for the observed patterns of increased participation.

Ability to make a difference and political attitudes : The intervention did not alter beliefs about citizens' ability to influence government outcomes or change perceptions about the costs and benefits of civic engagement. Table 5 shows no treatment effects on whether respondents believed individuals could influence public service delivery, whether acting alone or collectively. If enhanced confidence in the effectiveness of civic action were driving participation, we would expect systematic changes in these beliefs, but we observe none. Changes in political preferences, or systemic attitudes do not explain the results. The treatment had no significant impact on voting preferences, beliefs about corruption, willingness to pay higher taxes, or views about whether elections allow voters to remove under–performing governments. If broader attitudinal shifts were the mechanism, we would expect consistent effects across these measures, but the estimates cluster around zero with high p-values.

Social Desirability and Experimenter Demand : The persistence of participation effects one month after treatment makes demand effects unlikely, since such biases typically decay rapidly. Moreover, treated citizens undertook costly actions—attending workshops, reported to have made complaints on government portals, met civic officials and made financial contributions to civic efforts –that go beyond superficial compliance. Survey protocols ensured privacy in participation decisions, mitigating scope for enumerator influence. The selectivity of responses further undermines this explanation: accountability actions increased while electoral preferences remained unchanged. We also control for social-desirability index throughout our regressions.

Generalized Prosocial Behavior : If the intervention had simply triggered broad prosocial motivations, we would expect increases across all civic and political activities, including those unrelated to the information provided. Instead, we observe targeted increases precisely in those activities tied to service delivery domains highlighted in the video—accountability mechanisms, grievance processes, and formal complaint channels. Support for a hypothetical tax increase proved fragile under multiple-hypothesis adjustment, and preferences over monetary lotteries remained unchanged. This pattern is consistent with specific belief correction rather than generalized altruism.

Political Mobilization The video did not operate through partisan persuasion or electoral mobilization. Voting intentions, candidate preferences, and reasons to vote remained unchanged across all measured dimensions. This null result reinforces that information enhanced democratic participation without distorting democratic choice–citizens became more engaged with accountability mechanisms while maintaining their political independence.

The evidence converges on a coherent account centered on belief updating. The intervention taught citizens two crucial pieces of information: that service delivery gaps in their district were larger than they had realized compared to other districts, and that specific administrative channels existed to address these gaps. This combination of gap awareness and procedural knowledge enabled citizens to transform their initial disappointment into sustained civic engagement, not as passive recipients of political messaging, but as informed actors equipped to navigate formal accountability mechanisms.

7 Theoretical Framework

We develop a simple theoretical framework that formalizes the accountability channel uncovered in our experiment. We are interested in understand the puzzle: why do some citizens act even when average efficacy beliefs are low? Equally, why does correcting a performance belief sometimes trigger action without any measurable rise in perceived influence?

7.1 Set up

Consider a population of N citizens indexed by $i \in \{1, 2, ..., N\}$ in discrete time t who must decide whether to engage in civic action. Each citizen i chooses a binary participation decision $g_i \in \{0, 1\}$, where $g_i = 1$ indicates participation in accountability mechanisms such as filing complaints, attending grievance workshops, or confronting local officials.

Participating incurs a fixed private cost $c > 0$ and gives utility benefit Z_i. The citizen derives fixed emotional utility $I \geq 0$ from the intrinsic motivation (warm glow) of participating in civic activities.

Citizens decide whether to participate by trading off expected benefits, private costs, and any intrinsic motivation to participate. Formally, a citizen participates if their expected utility of participating (U_i^{part}) exceeds that of not participating (U_i^{notpart}).

Citizens differ in two behaviorally relevant beliefs that determine the perceived benefit from civic action. Let $\Delta_i > 0$ denote citizen i's *perceived performance gap*: the distance between an aspirational benchmark (rank 1, the best possible performance) and the citizen's belief about current district performance. Larger Δ_i therefore means the citizen perceives a larger shortfall that could be corrected. Let $p_i' \in (0, 1)$ denote the citizen's perceived *marginal efficacy* of participation: the subjective probability that her action will yield a measurable improvement [8]. We define the citizen's perceived instrumental benefit from acting as the product of these two primitives (i.e. the product of shortfall that exists and the ability of the individual to correct this shortfall in public service delivery):

$$Z_i \;=\; \Delta_i \cdot p_i'.$$

The multiplicative specification of the perceived benefit captures the expected payoff logic: the practical value of reducing a shortfall must be scaled by the likelihood that effort will realize that reduction, so the product is the citizen's expected improvement from acting.

7.2 Assumptions:

Our framework is based on the below assumptions:

1 *Non-Trivial Performance Gaps:* There is some level of misperception that exists in realizing Δ_i, and hence in society, $\mathbb{E}[\Delta_i] > 0$. We also assume that we are not at the aspirational benchmark already—there is scope for citizens to start engaging in accountability mechanisms.

[8] Both primitives are directly elicitable in surveys (rank/performance questions for Δ_i; efficacy battery questions for p_i') and are the objects the information treatment is designed to shift

2 *No Strategic Interaction:* How other people are reacting does not influence individual participation decisions in our model. This abstracts away from social influence effects, justified by our experimental setting where citizens could not communicate with each other before registering for workshops or signing petitions. We later work on an extension in the theoretical appendix to relax this assumption for longer term outcomes that could be affected by strategic interactions (e.g. attending the workshops, meeting civic officials etc.).

7.3 Utility

The utility from participating and not participating is given by:

$$U_i^{\text{part}} = \underbrace{Z_i}_{\Delta_i \cdot p_i} + I - c + \varepsilon_i$$
$$U_i^{\text{notpart}} = \Delta_i \cdot p_0 + \varepsilon_i$$

where I is intrinsic warm-glow motivation. The participation condition is:

$$U_i^{\text{part}} - U_i^{\text{notpart}} = \Delta_i \cdot p_i' + I - c > 0$$

.

Under standard logit choice McFadden (1974), citizen i's participation probability is: $\pi_i = \Pr(g_i = 1) = \Pr(p_i' \cdot \Delta_i + I - c + \varepsilon_i > 0) = \Lambda(p_i' \cdot \Delta_i + I - c)$, where $\Lambda(\cdot)$ is the logistic cumulative distribution function. This probability π_i represents the likelihood that citizen i will choose to participate given their beliefs (Δ_i, p_i') and the fixed parameters (I, c).

The logistic functional form ensures that participation probability is bounded between 0 and 1 and responds smoothly to changes in perceived benefits. ε_i represents an idiosyncratic utility shock distributed logistically with full support and scale parameter normalized to one.
The participation choice captures three key insights. First, participation becomes more likely as either perceived performance gaps (Δ_i) or perceived efficacy (p_i') increase, but the effect is multiplicative—both dimensions matter jointly. Second, intrinsic motivation (I) makes participation more likely by providing utility independent of instrumental concerns. Third, higher private costs (c) make participation less likely by increasing the threshold for action.

7.4 Learning from information

We now analyze how new information shifts citizen beliefs about both performance gaps and their own efficacy. Citizens enter the model with heterogeneous priors $(\Delta_i^0, p_i'^0)$ about government performance gaps and their own efficacy. An information intervention can shift beliefs in both dimensions. Let the post-intervention beliefs be:

$$\Delta_i^1 = \Delta_i^0 + \delta_i$$

$$p_i'^1 = p_i'^0 + \gamma_i$$

where δ_i represents the change in perceived performance gap (e.g., learning that one's district ranks worse than previously believed) and γ_i represents the change in perceived efficacy (e.g., learning about new channels for citizen voice). This additive structure is consistent with (but not restricted to) Bayesian learning when citizens observe hard information (formal derivation provided in A.10).

The updated perceived benefit becomes:

$$Z_i^1 = (\Delta_i^0 + \delta_i)(p_i'^0 + \gamma_i) = Z_i^0 + \Delta_i^0\gamma_i + p_i'^0\delta_i + \delta_i\gamma_i$$

This decomposition reveals three sources of belief updating: (i) a pure efficacy effect ($\Delta_i^0\gamma_i$), (ii) a pure effect through updating rank beliefs ($p_i'^0\delta_i$), and (iii) a joint reinforcement effect ($\delta_i\gamma_i$).

7.5 Change in participation probability

The change in participation probability following belief updates is given by: $\Delta\pi_i = \pi_i^1 - \pi_i^0 = \Lambda(Z_i^1 + I - c) - \Lambda(Z_i^0 + I - c)$. Expanding the post-intervention benefit:

$$Z_i^1 = Z_i^0 + \underbrace{\Delta_i^0\gamma_i}_{\text{pure efficacy effect}} + \underbrace{\delta_i p_i'^0}_{\text{effect of belief updates}} + \underbrace{\delta_i\gamma_i}_{\text{interaction effect}}$$

The change in participation probability following belief updates (δ_i, γ_i) satisfies:

$$\frac{\partial\Delta\pi_i}{\partial\delta_i} = \pi_i^1(1-\pi_i^1)\cdot(p_i'^0 + \gamma_i) > 0$$

$$\frac{\partial\Delta\pi_i}{\partial\gamma_i} = \pi_i^1(1-\pi_i^1)\cdot(\Delta_i^0 + \delta_i) > 0$$

$$\frac{\partial^2\Delta\pi_i}{\partial\delta_i\partial\gamma_i} = \pi_i^1(1-\pi_i^1)[1 + (p_i'^0 + \gamma_i)(\Delta_i^0 + \delta_i)(1 - 2\pi_i^1)] > 0$$

The comparative statistics provide the foundation for understanding heterogeneous treatment effects. The responsiveness to performance information (δ_i) depends critically on baseline efficacy beliefs ($p_i'^0$), while responsiveness to efficacy information (γ_i) depends on baseline performance perceptions (Δ_i^0). Citizens with complementary high baseline beliefs in one dimension will be most responsive to information about the other dimension. [9].

7.6 Types:

Since our intervention did not alter beliefs about efficacy ($\gamma_i = 0$), we focus on how changes in perceived performance gaps ($\delta_i > 0$) influence participation. We then use citizens' baseline efficacy to define the types of individuals relevant to our empirical findings. To clarify the heterogeneity in these responses, we define four citizen types based on their baseline characteristics:

- Type (L,S): Low efficacy ($p_i'^0 = p_{low}$), Small update ($\delta_i = \delta_{small}$)
- Type (L,L): Low efficacy ($p_i'^0 = p_{low}$), Large update ($\delta_i = \delta_{large}$)

[9]For detailed comparative statics derivations, see theoretical appendix (A.10)

- Type (H,S): High efficacy ($p_i'^0 = p_{high}$), Small update ($\delta_i = \delta_{small}$)
- Type (H,L): High efficacy ($p_i'^0 = p_{high}$), Large update ($\delta_i = \delta_{large}$)

where $0 < p_{low} < p_{high} < 1$ and $0 < \delta_{small} < \delta_{large}$.

7.7 Predictions:

Our framework generates the following key theoretical results that formalize the accountability channel and address the empirical puzzles motivating our analysis.

Since, efficacy beliefs remain unchanged from the treatment intervention $\gamma_i = 0$, we now consider the change in participation through a change in perceived performance gaps.

Prediction 1 : Even when citizens feel individually powerless, negative performance information can modestly raise participation. The largest gains occur when both efficacy beliefs and belief corrections are high.

Theorem 1 (Heterogeneity in Participation Responses)**.** *Let $\pi_i^0 = \Lambda(\Delta_i^0 p_i'^0 + I - c)$ denote the baseline participation probability. Suppose the information treatment delivers a performance gap shock δ_i and does not change efficacy ($\gamma_i = 0$). The post-treatment change in participation is:*

$$\Delta\pi_i = \Lambda(\Delta_i^0 p_i'^0 + p_i'^0\delta_i + I - c) - \Lambda(\Delta_i^0 p_i'^0 + I - c)$$

For any baseline beliefs $(\Delta_i^0, p_i'^0)$, the following hold:

1. *Monotonicity: $\frac{\partial \Delta\pi_i}{\partial \delta_i} = \Lambda'(\Delta_i^0 p_i'^0 + p_i'^0\delta_i + I - c) \cdot p_i'^0 > 0$ for all $p_i'^0 > 0$.*
2. *Complementarity: $\frac{\partial^2 \Delta\pi_i}{\partial \delta_i \, \partial p_i'^0} = \Lambda'(\,\cdot\,)\Big[1 + p_i'^0(\Delta_i^0 + \delta_i)\big(1 - 2\Lambda(\cdot)\big)\Big]$. The marginal effect of δ_i rises with $p_i'^0$ whenever $\Lambda(\cdot) \leq \frac{1}{2}$.*
3. *Limiting behavior: $\lim_{p_i'^0 \to 0} \Delta\pi_i = 0$ and $\lim_{\delta_i \to 0} \Delta\pi_i = 0$.*

Consequently, citizen types with (p_{low}, p_{high}) and $(\delta_{small}, \delta_{large})$ where $0 < p_{low} < p_{high}$ and $0 < \delta_{small} < \delta_{large}$ satisfy:

- *Type (L,S): $\Delta\pi^{(L,S)} = \Lambda'(\cdot)p_{low}\delta_{small}$ (minimal or no response)*
- *Type (H,S): $\Delta\pi^{(H,S)} = \Lambda'(\cdot)p_{high}\delta_{small}$ (limited by small shock)*
- *Type (L,L): $\Delta\pi^{(L,L)} = \Lambda'(\cdot)p_{low}\delta_{large}$ (large shock compensates for low efficacy)*
- *Type (H,L): $\Delta\pi^{(H,L)} = \Lambda'(\cdot)p_{high}\delta_{large}$ (maximal response)*

with ordering $\Delta\pi^{(H,L)} > \max\{\Delta\pi^{(L,L)}, \Delta\pi^{(H,S)}\} > \Delta\pi^{(L,S)}$. and $\Delta\pi^{(L,L)} \geq \Delta\pi^{(H,S)}$ iff $p_{low}\delta_{large} \geq p_{high}\delta_{small}$.

Theorem 1 formalizes the central prediction of our model: the results establish perceived self-efficacy and beliefs about performance gaps as strategic complements—the marginal effect of a larger shock is amplified by a higher baseline efficacy, and vice versa. As a result, the theorem

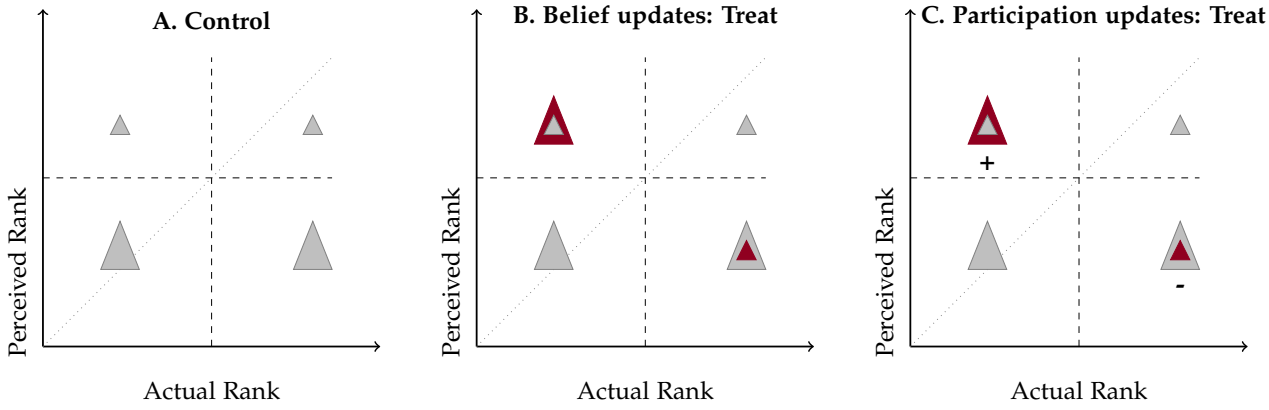
predicts a clear hierarchy of responses: a large information shock on performance gaps coupled with high baseline efficacy generates the maximal behavioral change, whereas minimal shocks or near-zero efficacy beliefs result in negligible responses.

To focus the predictions from Theorem 1, we now focus on the citizens who start with low efficacy beliefs p_{low} and do not update these beliefs from the information treatment.

Panel A of Figure 7.7 illustrates the relationship between actual district rank (X-axis) and perceived rank (Y-axis). Citizens with large misperceptions—either overestimating performance (Quadrant 1) or underestimating it severely (Quadrant 4)—have substantial scope for belief updating, reflected in the size of Δ across quadrants. By contrast, those with accurate perceptions (Quadrants 2 and 3) have limited scope for revision.

Panel B shows post-intervention belief updating. The video provided negative performance information, causing overestimators to realize their district ranked worse than believed. These citizens experienced large downward corrections in perceived performance (maroon triangle), while those who initially underestimated performance revised beliefs upward by smaller amounts.

The model predicts these belief corrections should translate into heterogeneous participation responses: increased participation among overestimators (Quadrant 1), negligible changes among those with accurate priors (Quadrants 2 and 3), and potential decreases among severe underestimators (Quadrant 4). This pattern aligns with our empirical findings, where overestimators drove the overall treatment effects on participation, while citizens with accurate or pessimistic priors exhibited minimal behavioral change.



Prediction 2 : Information has the biggest impact on citizens who are near the participation margin; it does little for those highly disengaged or already highly mobilized.

Theorem 2 (Bounded effectiveness of information)**.** *For any information shock $\delta_i \geq 0$ that leaves efficacy unchanged ($\gamma_i = 0$), (i) $\partial \Delta\pi_i / \partial \delta_i$ is single-peaked with a unique inflection at $\delta_i^* = -u_i^0 / p_i'^0$: it rises for $\delta_i < \delta_i^*$ and falls for $\delta_i > \delta_i^*$; (ii) $\lim_{\delta_i \to \infty} \Delta\pi_i(\delta_i) = 1 - \Lambda(u_i^0)$, and for all $\delta_i \geq 0$,*

$$\Delta\pi_i(\delta_i) \;\leq\; \min\left\{ \frac{1}{4}\, p_i'^0 \delta_i,\;\; 1 - \Lambda(u_i^0) \right\}.$$

Theorem 2 shows that the effect of information is S-shaped. When efficacy is positive, participation always rises after learning, but the magnitude depends on where citizens start. Citizens

who start with extremely low perceived gaps or are already highly dissatisfied (near full participation at baseline) respond little to additional information because the logistic curve is flat at both tails. By contrast, those near the participation threshold (the "marginal" citizens), are most responsive. For them, even modest belief corrections produce large jumps in participation.

This structure could explain the heterogeneity in our results. Overestimators, who would have had the most room to update and were closer to the participation margin, should show the sharpest participation increases. Accurate assessors or those already pessimistic should display weaker responses, not because they ignored the information, but because they sit on flatter parts of the curve where shocks translate into smaller behavioral changes. The S-shape thus provides a theoretical foundation for the heterogeneous treatment effects observed in Tables 9 and 10, and clarifies why identical information campaigns can succeed in some settings while appearing ineffective in others.

Prediction 3: For any citizen with some positive efficacy, a sufficiently large correction in performance beliefs can generate a targeted increase in participation; but when perceived ability to make a difference approaches zero, the required correction becomes infinitely large.

Theorem 3 (Magnitude of correction for the performance-gap channel)**.** *For citizen i with baseline participation utility $u_i^0 = \Delta_i^0 p_i'^0 + I - c$ and strictly positive efficacy $p_i'^0 > 0$, any target participation gain $\varepsilon \in (0, 1 - \pi_i^0)$, requires a performance-gap shock (holding efficacy fixed, $\gamma_i = 0$) to be :*

$$\delta_i^*(\varepsilon) \;=\; \frac{\Lambda^{-1}\big(\pi_i^0 + \varepsilon\big) - u_i^0}{p_i'^0}, \qquad \pi_i^0 := \Lambda(u_i^0).$$

The theorem quantifies the "how much": the required belief correction falls one-for-one with perceived efficacy and with proximity to the participation threshold. When efficacy is low but nonzero, as in our setting (roughly 90% report "no influence"), a large enough performance shock can still move behavior. In the experiment, overestimators experienced large rank corrections (big δ_i) while efficacy remained unchanged; the formula implies they can meet a given participation gain with a finite δ_i^*. Accurate or already pessimistic citizens faced much smaller δ_i or were near saturation ($1 - \pi_i^0$ small), so observed changes were limited. This aligns with the heterogeneity we document: participation rises sharply among overestimators despite low efficacy, and much less elsewhere.

8 Structural Estimation

This section estimates the structural model to answer fundamental questions left open by our empirical analysis. While we have established that correcting performance misperceptions increases civic participation (e.g., in the form of signing more petitions for bureaucrats), the optimal design of policy interventions requires understanding the primitive parameters that govern citizens' decisions. How large must be a belief correction to induce meaningful behavioral change? How do interventions targeting performance beliefs compare to those enhancing perceived self-efficacy in increasing participation? To address these questions, we estimate the structural parameters of our theoretical framework. This approach serves three key purposes: (i) it recovers the preference pa-

rameters that determine how citizens trade off the benefits of participation against private costs, (ii) it decomposes the reduced-form treatment effects into their constituent channels, isolating the causal role of performance gap beliefs (Δ_i) from other mechanisms, and (iii) it enables counterfactual simulations of policy interventions that are infeasible to implement experimentally, such as efficacy-enhancing reforms or optimally targeted combinations of treatments.

8.1 Structural Framework

Individual i participates in civic action ($g_i = 1$) when the utility from participation exceeds that from abstention. We specify participation probability using a single-index logistic model:

$$\pi_i = \Pr(g_i = 1 \mid \Delta_{i1}, p_i, X_i) = \Lambda(\alpha + \beta \cdot p_i \Delta_{i1} + X_i'\gamma)$$

where $\Lambda(\cdot)$ denotes the logistic cumulative distribution function, Δ_{i1} represents post-information performance gaps, $p_i \in (0, 1)$ captures perceived efficacy, and X_i includes observable covariates. The multiplicative term $p_i\Delta_{i1}$ reflects the instrumental benefit from participation, consistent with our theoretical framework where citizens weigh both dissatisfaction intensity and perceived influence over outcomes.

The structural parameters have clear interpretations: α captures net intrinsic motivation (baseline propensity minus average participation costs), $\beta > 0$ governs responsiveness to instrumental benefits, and γ controls for observable heterogeneity. The logistic specification emerges naturally from assuming Type I extreme value errors in the latent utility difference, yielding the characteristic S-shaped relationship between dissatisfaction and participation probability.

We measure as Δ_i as distance of perceived beliefs about district's rank from the aspirational rank (1). p (probability that action will yield a measurable improvement) is probability derived from a likert-scale item (1–5) assessing to what extent citizens agree that they have no influence over public service delivery. We focus on petition-signing as our main outcome of interest for this exercise, since respondents did not have any scope to interact with each other before signing the petitions in the study.

8.2 Identification Strategy

Our identification strategy exploits the randomized information treatment, which provides exogenous variation in performance gap beliefs Δ_i while leaving efficacy beliefs (p_i') and intrinsic motivation (I_i) unchanged, as shown in Section 5 [10]. Identification is achieved through the two instruments: Treatment (T_i) shock to rank beliefs at baseline and interaction of random treatment assignment with baseline heterogeneity in beliefs ($T_i * p_{i0}$). This clean separation of channels allows us to identify the causal mapping from beliefs to behavior using an instrumental variables approach, avoiding the strong functional form assumptions of alternative methods. Our identification relies on key assumptions validated by the experimental design: i) treatment assignment T_i is independent of $(p_i, \Delta_{i0}, X_i, \varepsilon_i)$ and affects participation only through performance gap beliefs: $\Delta_{i1} = \Delta_{i0} + \delta_i T_i$ where δ_i represents the information shock, ii) the intervention shifts performance

[10] Figure 5 presents evidence that meaningful perceived performance gaps Δ exist in our sample. The mean baseline $\bar{\Delta}_0 = 2.2$ indicates that citizens initially believe they are closer to the aspirational benchmark, providing substantial room for belief correction and subsequent behavioral change.

gaps but leaves efficacy beliefs unchanged: $\mathbb{E}[p_i \mid T_i = 1] = \mathbb{E}[p_i \mid T_i = 0]$ (crucial for separately identifying the two belief channels) [11], iii) information shocks preserve the ordinal ranking of Δ_i across individuals, ruling out systematic treatment effect reversals, iv) elicited beliefs contain classical measurement error independent of treatment assignment, which instrumental variables estimation corrects through the randomized information provision.

8.3 Estimation Procedure

Because the structural index is nonlinear, we estimate the model in a likelihood framework using experimentally induced exogeneity in the performance-gap belief (Δ_i). Concretely, we first instrument the endogenous perceived benefit Z_{i1} using T_i and $T_i * p_{i0}$ to construct a fitted value for the belief component moved by the experiment $\widehat{Z}_{i1} = p_i\widehat{\Delta}_{i1}$. We compute the first stage expression as: We run a first stage on the multiplicative index:

$$Z_{i1} = \pi_0 + \pi_1 Z_{0i} + \pi_2 p_i + \pi_3 T_i + \pi_4 (T_i \times p_i) + \pi' X_i + u_i,$$

and form the fitted value $\widehat{Z}_{i1}$ [12]

We then maximize the Bernoulli log-likelihood using the exogenous fitted index:

$$\mathcal{L}(\alpha, \beta, \gamma) = \sum_i \left\{ Y_i \log \Lambda(\alpha + \beta \widehat{Z}_{i1} + X_i'\gamma) + (1 - Y_i) \log \left[1 - \Lambda(\alpha + \beta \widehat{Z}_{i1} + X_i'\gamma)\right] \right\},$$

where $\Lambda(\cdot)$ is the logistic CDF, Y_i is the participation indicator, and X_i are baseline controls. Random assignment guarantees the validity of $\widehat{Z}_{i1}$ as a generated regressor; we compute village-clustered standard errors.

8.4 Main Empirical Results

The first stage confirms strong instrument relevance. Projecting the index $Z_{i1} = p_i\Delta_{i1}$ on $\{Z_{0i}, p_i, T_i, T_i \times p_i, X_i\}$ yields a joint F-statistic on $\{T_i, T_i \times p_i\}$ of 36, well above conventional thresholds. The reduced-form IV regression indicates that a one unit increase in the realization of performance gaps increase the probability of signing petitions by 14 percentage points on average, when efficacy beliefs are unchanged.

The structural estimates yield sharp predictions for heterogeneous responses. The marginal effect of dissatisfaction shocks is:

$$\frac{\partial \pi}{\partial \Delta} = \beta p \cdot \Lambda(1 - \Lambda),$$

which is proportional to efficacy p and single-peaked in Δ. Responsiveness is maximized at the inflection point

$$\Delta^*(p) = -\alpha/(\beta p).$$

Citizens with either very low or very high Δ lie on the flat regions of the logistic curve; those near $\Delta^*(p)$ are most responsive.

[11] We provide empirical evidence in Section 5.2.

[12] This is algebraically equivalent to writing the update at the level of beliefs, $\Delta_{i1} = \Delta_{i0} + \gamma_\Delta T_i + \delta' X_i + e_i$ with p_i fixed and then multiplying by p_i to obtain $Z_{i1} = Z_{0i} + \gamma_\Delta(p_i T_i) + p_i(\delta' X_i) + p_i e_i$.

Simulation exercises confirm these patterns. At the mean $\bar{\Delta}$ level, increasing Δ by one unit raises participation by about 2.8 percentage points at $p = 0.2$, 7.0 points at $p = 0.5$, and 11.2 points at $p = 0.8$. Joint increases in both channels amplify responses dramatically: moving from $(p, \Delta) = (0.2, 1)$ to $(0.8, 3)$ raises predicted participation from 0.21 to 0.83, a 62 percentage point increase.

9 Conclusion

Our study investigated how citizens' prior beliefs about government performance shape their responses to credible information and, in turn, their civic participation. Motivated by the observation that transparency interventions yield inconsistent effects across contexts (e.g., Banerjee et al., 2010; Björkman and Svensson, 2009; Banerjee et al., 2018), we hypothesized that heterogeneity in prior beliefs plays a central role. Using a randomized controlled trial with 2,107 respondents in Ranchi, India, we provided accurate district-level performance data in health, education, and infrastructure, together with clear information on institutional channels for citizen engagement.

The results show that correcting misperceptions about government performance significantly increases participation. Citizens who initially overestimated how well their district was performing systematically revised their views downward when confronted with accurate information. Far from disengaging, these respondents became more active in demanding accountability: they were more likely to attend grievance workshops, sign petitions, and participate in collective actions aimed at improving local governance. Rather than discouraging engagement, the recognition that public services were worse than expected sharpened dissatisfaction and gave citizens a stronger sense of urgency to act. Importantly, we find no evidence that beliefs about the ability of citizens to make a difference changed—suggesting that participation was driven by learning about the performance gap rather than by shifts in perceptions of efficacy.

By explicitly linking belief updating to civic participation, this study contributes to the literature on transparency and accountability. Previous research has shown that information campaigns can sometimes mobilize communities but at other times fail to do so (Haaland et al., 2023; Coibion et al., 2022; **?**). Our findings clarify this puzzle: responses depend critically on citizens' initial expectations. When citizens already recognize poor performance, new information adds little. But when citizens hold overly positive views, correcting these misperceptions motivates them to engage more actively. This mechanism helps explain the mixed impacts documented in earlier studies of information-based interventions.

The findings also carry important policy implications. Simply providing information on the dashboard is not enough; the effectiveness of transparency initiatives depends on the priors that citizens hold when they encounter new data. Designing information campaigns that both highlight performance gaps and link them to actionable avenues for engagement can therefore be a powerful strategy for strengthening accountability.

Future research could build on these results in several ways. One direction is to assess whether the participation effects documented here persist over longer horizons. Another is to study how collective participation is affected by interaction with other individuals. Further work could also examine heterogeneity across social groups, particularly marginalized communities, to understand whether belief updating operates differently across segments of the population. Fi-

nally, pairing informational campaigns with institutional reforms—such as improved grievance redressal systems or participatory forums—could test whether belief correction and structural change are complements in sustaining citizen engagement. Pursuing these questions would deepen our understanding of how information shapes civic action and how governments and civil society can design more effective accountability interventions.

10 Tables

10.1 Primary outcomes

Table 1: Revealed Participation Behavior

	Online Petition			Willing to	Workshop		Overall
	Health	Education	Infrastructure	put effort	Registered	Attended	Factor
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Treat	0.040**	0.040**	0.039**	0.041***	0.035**	0.084***	0.084**
	(0.019)	(0.018)	(0.019)	(0.014)	(0.016)	(0.016)	(0.039)
N	2106	2106	2106	2106	2106	2106	2106
Control mean	0.631	0.631	0.630	0.809	0.508	0.037	0.000
MHT pval	0.002	0.002	0.002	0.001	0.001	.	

Notes: This table presents respondents' revealed participation in civic activities immediately after viewing the informational video. Columns 1–3 report the share of respondents who signed anonymous online petitions addressed to the District Magistrate, advocating for: (i) urgent action against malnutrition among children under age six; (ii) measures to reduce overcrowding in public school classrooms; and (iii) improvements to road conditions and uncovered manholes. Signing was confirmed only if the respondent read the full petition text. Column 4 reports the share of respondents willing to invest substantial time or effort in accessing state performance information to hold the government accountable. Column 5 shows the percentage who signed up for a training workshop on using public grievance redressal mechanisms. Column 6 reports actual attendance at the workshop. Column 7 presents a composite participation index constructed as a latent trait using factor analysis of responses in Columns 1–6. All regressions follow the specification in Section 4. Covariates are selected via double LASSO. Standard errors are clustered at the village level. $p < 0.10$, $p<0.05$, $p<0.01$.

Table 2: Stated Individual Participation behavior after 1 month

	Plans to File RTI (1)	Used complaint portals (2)	Donated to citizen events (3)	Opinion on Social media (4)	Overall Factor (5)
Treat	0.047***	0.041*	0.077***	0.059***	0.164***
	(0.017)	(0.021)	(0.017)	(0.020)	(0.038)
N	1936	1936	1936	1936	1936
Control mean	0.304	0.395	0.388	0.362	-0.000
MHT pval	0.011	0.033	0.001	0.001	

Notes: This table reports treatment effects on respondents' self-reported civic participation in activities that can be undertaken independently at the individual level, measured one month after viewing the informational video. Column 1 presents the share of respondents who reported filing or planning to file a Right to Information (RTI) request. Column 2 reports the share who reported having used formal government complaint channels, such as the Centralized Public Grievance Redressal System (CPGRAMS), Mann ki Baat application, or Gram Sabha complaint boxes. Column 3 captures the share who contributed financially to citizen-organized events or protests aimed at improving public service delivery. Column 4 shows the percentage who used social media to express views on politics or government performance. Column 5 presents a composite index of participation, constructed as a latent trait using factor analysis from the indicators in Columns 1–4. All regressions follow the specification in Section 4, where T denotes assignment to the information treatment. Covariates are selected using double LASSO. Standard errors are clustered at the village level. $p < 0.10$, $p<0.05$, $p<0.01$.

Table 3: Stated Collective Participation behavior after 1 month

	Met Civic Officials (1)	Attended Village meetings (2)	Met with public groups (3)	Talked to citizen groups (4)	Initiatives by civil society (5)	Overall Factor (6)
Treat	0.042**	0.013	0.026	0.028	0.036*	0.096**
	(0.020)	(0.015)	(0.018)	(0.024)	(0.020)	(0.046)
N	1936	1936	1936	1936	1936	1936
Control mean	0.328	0.871	0.764	0.718	0.514	-0.000
MHT pval	0.107	0.272	0.107	0.272	0.081	

Notes: This table reports treatment effects on respondents' self-reported participation in civic activities involving engagement with public officials, civil society organizations, or collective efforts, measured one month after viewing the informational video. Column 1 shows the share of respondents who reported having met with a civic official (e.g., Block Development Officer, Gram Panchayat Secretary, Village Development Officer or Panchayat Development Officer, Revenue Officials such as Patwari/Lekhpal, or officials from the District Magistrate's office). Column 2 reports the share who attended local government meetings such as the Gram Sabha. Column 3 captures the percentage who met with frontline service providers or local leaders (e.g., anganwadi workers, school heads, or village representatives) to discuss issues related to health, education, or local infrastructure. Column 4 shows the share who participated in a group discussion about the government's performance. Column 5 captures the share who took part in initiatives led by civil society organizations. Column 6 presents a composite participation index, constructed as a latent trait using factor analysis from Columns 1–4. All regressions follow the specification described in Section 4, with T indicating assignment to the information treatment. Covariates are selected using double LASSO. Standard errors are clustered at the village level. $p < 0.10$, $p<0.05$, $p<0.01$

Table 4: Misperception about relative performance information

	Misperceived about relative rank on:			Average	Overall
	Health	Education	Infrastructure	Misperception	Factor
	(1)	(2)	(3)	(4)	(5)
Panel A: Just after					
Treat	-0.119***	-0.135***	-0.044***	-0.138***	-0.375***
	(0.022)	(0.025)	(0.015)	(0.024)	(0.063)
N	2106	2106	2106	2106	2106
Control mean	0.870	0.687	0.912	0.817	-0.000
MHT pval	0.001	0.001	0.001	0.001	
Panel B: +1 month					
Treat	0.011	-0.013	0.009	0.005	0.011
	(0.020)	(0.025)	(0.017)	(0.019)	(0.045)
N	1936	1936	1936	1936	1936
Control mean	0.753	0.595	0.804	0.749	-0.000
MHT pval	0.640	0.714	0.731	0.731	

Notes: This table presents treatment effects on respondents' posterior beliefs about their district's relative performance, elicited immediately after viewing the informational video. Columns 1–3 report the share of respondents with positively biased beliefs about their district's rank (i.e., Posterior – Truth > 0) on three public service indicators: (i) the prevalence of severely underweight children under age six (Health); (ii) the number of public schools with excessive student–teacher ratios (Education); and (iii) the share of habitations lacking access to paved roads (Infrastructure). Column 4 reports the share of respondents classified as misinformed, defined as having an average signed error across the three dimensions of −1. Column 5 presents a composite misperception index constructed as a latent trait using factor analysis from the indicators in Columns 1–3. All regressions follow the specification described in Section 4. Covariates are selected via double LASSO. Standard errors are clustered at the village level. $p < 0.10$, $p<0.05$, $p<0.01$

Table 5: Beliefs about ability to make a change

	No influence over govt (1)	No effect of one citizen's efforts (2)	Only mass actions affect govt (3)	Overall Factor (4)
Panel A: Just after				
Treat	0.007	-0.017	-0.019	-0.010
	(0.015)	(0.017)	(0.012)	(0.037)
N	2106	2106	2106	2106
Control mean	0.810	0.654	0.906	-0.000
MHT pval	0.785	0.785	0.649	
Panel B: +1 month				
Treat	-0.014	0.003	-0.003	-0.025
	(0.012)	(0.015)	(0.009)	(0.031)
N	1936	1936	1936	1936
Control mean	0.907	0.743	0.928	0.000
MHT pval	0.045	0.925	0.646	0.180

Notes: This table presents treatment effects on respondents' beliefs about whether they can bring about a change in quality of public service delivery from their individual efforts, elicited immediately after viewing the informational video. Column 1 reports the share of respondents who agree with the statement: (i) people like me don't have any influence over how public service gets delivered; (ii) public services cannot get better when a citizen alone asks the government to do a better job; and (iii) only mass actions for causes affect the government and individual voices don't have an effect. Column 5 presents a composite concern index, constructed as a latent trait using factor analysis of the indicators in Columns 1–3. All regressions follow the specification described in Section 4. Covariates are selected using double LASSO. Standard errors are clustered at the village level. p < 0.10, p<0.05, p<0.01

10.2 Secondary outcomes

Table 6: Awareness about Government programs and statistics after 1 month

	Government programs				Development	Overall
	ADP	Health	Education	Infrastructure	Statistics	Factor
	(1)	(2)	(3)	(4)	(5)	
Treat	0.207***	0.055***	0.078***	0.087***	0.001	0.258***
	(0.037)	(0.018)	(0.024)	(0.023)	(0.015)	(0.060)
N	1936	1936	1936	1936	1936	1936
Control mean	0.464	0.874	0.765	0.792	0.739	-0.000
MHT pval	0.001	0.001	0.001	0.001	0.797	

Notes: This table reports treatment effects on respondents' awareness of key government programs and development statistics, measured one month after viewing the informational video. Columns 1–4 capture awareness of (i) the Aspirational Districts program; (ii)local maternal and child health services (Anganwadi centers) ; (iii) the universal elementary education program (Sarva Shiksha Abhiyan) and (iv) the rural road development scheme (Pradhan Mantri Gram Sadak Yojana). Column 5 measures awareness of government-reported development statistics in the respondent's district, such as the number of households with access to toilets. Column 6 presents an overall Awareness Index, constructed as a latent trait using factor analysis of responses in Columns 1–4. All regressions follow the specification in Section 4, where T denotes assignment to the information treatment. Covariates are selected via double LASSO. Standard errors are clustered at the village level. p < 0.10, p<0.05, p<0.01.

Table 7: Citizen satisfaction from public service delivery

	Health	Education	Infrastructure	Overall factor
	(1)	(2)	(3)	(4)
Panel A: Just after				
Treat	-0.098***	-0.133***	-0.092**	-0.118***
	(0.038)	(0.040)	(0.046)	(0.036)
N	2106	2106	2106	2106
Control mean	3.682	3.600	3.288	-0.000
MHT pval	0.002	0.001	0.002	
Panel B: +1 month				
Treat	-0.040	-0.026	0.003	-0.035
	(0.032)	(0.029)	(0.034)	(0.037)
N	1936	1936	1936	1936
Control mean	3.959	3.882	3.685	0.000
MHT pval	0.028	0.131	0.704	

Notes: This table presents treatment effects on respondents' satisfaction with key public services in their district, measured immediately after viewing the informational video. Respondents were asked: "How satisfied are you with the use of the following public services in your district?" Column 1 captures satisfaction with healthcare and nutrition services for children. Column 2 reflects satisfaction with the number of teachers per classroom. Column 3 reports satisfaction with roads in the community. Column 4 presents an overall Satisfaction Index, constructed as a latent trait using factor analysis of responses in Columns 1–3. Regressions follow the specification described in Section 4, with T indicating assignment to the information treatment. Covariates are selected using double LASSO. Standard errors are clustered at the village level. p < 0.10, p<0.05, p<0.01

Table 8: Citizen's trust in different institutions

	Prime Minister	Central Govt	State Govt	Local Govt	Village body	Elections	Govt Stats	Overall factor
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A: Just after								
Treat	-0.000	-0.005	-0.042**	-0.011	-0.028***	-0.014	0.016	-0.076*
	(0.011)	(0.011)	(0.017)	(0.015)	(0.010)	(0.011)	(0.014)	(0.045)
N	2106	2106	2106	2106	2106	2106	2106	1936
Control mean	0.921	0.925	0.862	0.882	0.928	0.905	0.679	-0.000
MHT pval	0.757	0.757	0.006	0.691	0.006	0.141	0.691	
Panel B: +1 month								
Treat	0.002	-0.006	-0.014	0.002	-0.001	-0.002	0.017	-0.025
	(0.007)	(0.007)	(0.009)	(0.009)	(0.008)	(0.008)	(0.015)	(0.042)
N	1936	1936	1936	1936	1936	1936	1936	1936
Control mean	0.971	0.968	0.959	0.970	0.973	0.966	0.809	-0.000
MHT pval	0.991	0.804	0.155	0.991	0.991	0.991	0.804	

Notes: This table presents treatment effects on respondents' satisfaction with key public services in their district, measured immediately after viewing the informational video. Respondents were asked: "How satisfied are you with the use of the following public services in your district?" Column 1 captures satisfaction with healthcare and nutrition services for children. Column 2 reflects satisfaction with the number of teachers per classroom. Column 3 reports satisfaction with roads in the community. Column 4 presents an overall Satisfaction Index, constructed as a latent trait using factor analysis of responses in Columns 1–3. Regressions follow the specification described in Section 4, with T indicating assignment to the information treatment. Covariates are selected using double LASSO. Standard errors are clustered at the village level. p < 0.10, p<0.05, p<0.01

10.3 Heterogeneity by baseline level of rank overestimation

Table 9: Revealed Participation Behavior

	Online Petition			Willing to	Workshop		Overall
	Health	Education	Infrastructure	put effort	Registered	Attended	Factor
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Treat X OverEst	0.056**	0.056***	0.052**	0.057***	0.040**	0.111***	0.115**
	(0.022)	(0.021)	(0.022)	(0.016)	(0.020)	(0.020)	(0.045)
Treat X NotOverEst	-0.005	-0.005	-0.000	-0.004	0.018	0.005	-0.008
	(0.027)	(0.027)	(0.028)	(0.019)	(0.030)	(0.013)	(0.056)
OverEst	-0.103***	-0.104***	-0.090***	-0.039*	-0.049	-0.005	-0.207***
	(0.028)	(0.028)	(0.028)	(0.023)	(0.036)	(0.018)	(0.058)
Obs	2107	2107	2107	2107	2107	2107	2107
Ctrl mean: NotOverEst	0.704	0.704	0.696	0.856	0.537	0.035	0.147
Ctrl mean: OverEst	0.608	0.608	0.609	0.795	0.498	0.037	-0.047
p: OverEst = NotOverEst	0.054	0.047	0.101	0.010	0.573	0.000	0.055

Notes: This table presents respondents' revealed participation in civic activities immediately after viewing the informational video. Columns 1–3 report the share of respondents who signed anonymous online petitions addressed to the District Magistrate, advocating for: (i) urgent action against malnutrition among children under age six; (ii) measures to reduce overcrowding in public school classrooms; and (iii) improvements to road conditions and uncovered manholes. Signing was confirmed only if the respondent read the full petition text. Column 4 reports the share of respondents willing to invest substantial time or effort in accessing state performance information to hold the government accountable. Column 5 shows the percentage who signed up for a training workshop on using public grievance redressal mechanisms. Column 6 reports actual attendance at the workshop. Column 7 presents a composite participation index constructed as a latent trait using factor analysis of responses in Columns 1–6. All regressions follow the specification in Section 4. Covariates are selected via double LASSO. Standard errors are clustered at the village level. $p < 0.10$, $p<0.05$, $p<0.01$.

Table 10: Stated Individual Participation behavior after 1 month

	Plans to File RTI	Used complaint portals	Donated to citizen events	Opinion on Social media	Overall Factor
	(1)	(2)	(3)	(4)	(5)
Treat X OverEst	0.054***	0.045**	0.084***	0.084***	0.191***
	(0.019)	(0.021)	(0.020)	(0.022)	(0.045)
Treat X NotOverEst	0.035	0.001	0.021	0.015	0.045
	(0.033)	(0.039)	(0.032)	(0.031)	(0.073)
OverEst	-0.017	-0.001	-0.035	-0.017	-0.047
	(0.033)	(0.029)	(0.028)	(0.029)	(0.052)
Obs	1936	1936	1936	1936	1936
Ctrl mean: NotOverEst	0.247	0.399	0.395	0.407	-0.004
Ctrl mean: OverEst	0.323	0.394	0.386	0.347	0.001
p: OverEst = NotOverEst	0.651	0.284	0.103	0.073	0.092

Notes: This table reports treatment effects on respondents' self-reported civic participation in activities that can be undertaken independently at the individual level, measured one month after viewing the informational video. Column 1 presents the share of respondents who reported filing or planning to file a Right to Information (RTI) request. Column 2 reports the share who reported having used formal government complaint channels, such as the Centralized Public Grievance Redressal System (CPGRAMS), Mann ki Baat application, or Gram Sabha complaint boxes. Column 3 captures the share who contributed financially to citizen-organized events or protests aimed at improving public service delivery. Column 4 shows the percentage who used social media to express views on politics or government performance. Column 5 presents a composite index of participation, constructed as a latent trait using factor analysis from the indicators in Columns 1–4. All regressions follow the specification in Section 4, where T denotes assignment to the information treatment. Covariates are selected using double LASSO. Standard errors are clustered at the village level. $p < 0.10$, $p<0.05$, $p<0.01$.

Table 11: Stated Collective Participation behavior after 1 month

	Met Civic Officials	Attended Village meetings	Met with public groups	Talked to citizen groups	Initiatives by civil society	Overall Factor
	(1)	(2)	(3)	(4)	(5)	(6)
Treat X Misp	0.045*	0.010	0.026	0.050**	0.060***	0.137***
	(0.024)	(0.019)	(0.020)	(0.024)	(0.021)	(0.052)
Treat X NotMisp	0.039	0.029	0.002	-0.013	-0.063	-0.003
	(0.039)	(0.026)	(0.024)	(0.033)	(0.039)	(0.067)
Misp	0.054*	0.045	-0.015	-0.029	-0.036	-0.017
	(0.032)	(0.027)	(0.025)	(0.029)	(0.034)	(0.066)
Obs	1936	1936	1936	1936	1936	1936
Ctrl mean: NotMisp	0.239	0.844	0.856	0.815	0.556	0.186
Ctrl mean: Misp	0.357	0.880	0.733	0.685	0.501	-0.062
p: Misp = NotMisp	0.913	0.547	0.380	0.089	0.004	0.088

Notes: This table reports treatment effects on respondents' self-reported participation in civic activities involving engagement with public officials, civil society organizations, or collective efforts, measured one month after viewing the informational video. Column 1 shows the share of respondents who reported having met with a civic official (e.g., Block Development Officer, Gram Panchayat Secretary, Village Development Officer or Panchayat Development Officer, Revenue Officials such as Patwari/Lekhpal, or officials from the District Magistrate's office). Column 2 reports the share who attended local government meetings such as the Gram Sabha. Column 3 captures the percentage who met with frontline service providers or local leaders (e.g., anganwadi workers, school heads, or village representatives) to discuss issues related to health, education, or local infrastructure. Column 4 shows the share who participated in a group discussion about the government's performance. Column 5 captures the share who took part in initiatives led by civil society organizations. Column 6 presents a composite participation index, constructed as a latent trait using factor analysis from Columns 1–4. All regressions follow the specification described in Section 4, with T indicating assignment to the information treatment. Covariates are selected using double LASSO. Standard errors are clustered at the village level. $p < 0.10$, $p<0.05$, $p<0.01$

Table 12: Misperception about relative performance information

	Misperceived about relative rank on:			Average	Overall
	Health	Education	Infrastructure	Misperception	Factor
	(1)	(2)	(3)	(4)	(5)
Panel A: Just after					
Treat X OverEst	-0.167***	-0.259***	-0.067***	-0.219***	-0.578***
	(0.021)	(0.032)	(0.017)	(0.026)	(0.067)
Treat X NotOverEst	0.072	0.027	0.093*	0.103**	0.151
	(0.048)	(0.032)	(0.054)	(0.044)	(0.097)
OverEst	0.366***	0.430***	0.341***	0.424***	1.036***
	(0.049)	(0.034)	(0.054)	(0.041)	(0.084)
Obs	2107	2107	2107	2107	2107
Ctrl mean: NotOverEst	0.495	0.401	0.562	0.440	-0.955
Ctrl mean: OverEst	0.953	0.889	0.962	0.940	0.306
p: OverEst = NotOverEst	0.000	0.000	0.009	0.000	0.000
Panel B: +1 month					
Treat X OverEst	0.005	-0.022	0.006	0.003	-0.014
	(0.018)	(0.029)	(0.016)	(0.017)	(0.044)
Treat X NotOverEst	0.027	0.001	0.024	0.010	0.075
	(0.043)	(0.028)	(0.053)	(0.036)	(0.079)
OverEst	0.015	0.041	-0.000	0.003	0.046
	(0.030)	(0.030)	(0.041)	(0.028)	(0.059)
Obs	1936	1936	1936	1936	1936
Ctrl mean: NotOverEst	0.624	0.525	0.826	0.667	-0.183
Ctrl mean: OverEst	0.781	0.646	0.801	0.777	0.061
p: OverEst = NotOverEst	0.568	0.406	0.732	0.817	0.234

Notes: This table presents treatment effects on respondents' posterior beliefs about their district's relative performance, elicited immediately after viewing the informational video. Columns 1–3 report the share of respondents with positively biased beliefs about their district's rank (i.e., Posterior – Truth > 0) on three public service indicators: (i) the prevalence of severely underweight children under age six (Health); (ii) the number of public schools with excessive student–teacher ratios (Education); and (iii) the share of habitations lacking access to paved roads (Infrastructure). Column 4 reports the share of respondents classified as misinformed, defined as having an average signed error across the three dimensions of −1. Column 5 presents a composite misperception index constructed as a latent trait using factor analysis from the indicators in Columns 1–3. All regressions follow the specification described in Section 4. Covariates are selected via double LASSO. Standard errors are clustered at the village level. $p < 0.10$, $p<0.05$, $p<0.01$

Table 13: Beliefs about ability to make a change

	No influence over govt (1)	Effect of one citizen's efforts (2)	Only mass actions affect govt (3)	Overall Factor (4)
Panel A: Just after				
Treat X OverEst	0.016	-0.003	-0.029**	-0.004
	(0.018)	(0.022)	(0.012)	(0.040)
Treat X NotOverEst	-0.020	-0.053	0.010	-0.023
	(0.030)	(0.044)	(0.028)	(0.066)
OverEst	-0.039	0.019	0.007	-0.025
	(0.032)	(0.035)	(0.027)	(0.073)
Obs	2107	2107	2107	2107
Ctrl mean: NotOverEst	0.872	0.689	0.899	0.086
Ctrl mean: OverEst	0.791	0.643	0.908	-0.027
p: OverEst = NotOverEst	0.288	0.354	0.164	0.787
Panel B: +1 month				
Treat X OverEst	-0.016	0.001	-0.004	-0.034
	(0.011)	(0.018)	(0.011)	(0.038)
Treat X NotOverEst	-0.011	0.010	0.001	0.000
	(0.024)	(0.029)	(0.012)	(0.043)
OverEst	-0.015	0.010	0.001	-0.009
	(0.019)	(0.025)	(0.008)	(0.040)
Obs	1936	1936	1936	1936
Ctrl mean: NotOverEst	0.918	0.724	0.942	0.031
Ctrl mean: OverEst	0.903	0.750	0.923	-0.010
p: OverEst = NotOverEst	0.823	0.778	0.742	0.522

Notes: This table presents treatment effects on respondents' beliefs about whether they can bring about a change in quality of public service delivery from their individual efforts, elicited immediately after viewing the informational video. Column 1 reports the share of respondents who agree with the statement: (i) people like me don't have any influence over what the government does; (ii) public services can get better when a citizen alone asks the government to do a better job; and (iii) only mass actions for causes affect the government and individual voices don't have an effect. Column 5 presents a composite concern index, constructed as a latent trait using factor analysis of the indicators in Columns 1–3. All regressions follow the specification described in Section 4. Covariates are selected using double LASSO. Standard errors are clustered at the village level. $p < 0.10$, $p<0.05$, $p<0.01$

Table 14: Awareness about Government programs and statistics after 1 month

	Government programs				Development	Overall
	ADP	Health	Education	Infrastructure	Statistics	Factor
	(1)	(2)	(3)	(4)	(5)	
Treat X OverEst	0.206***	0.045***	0.066***	0.075***	0.018	0.229***
	(0.034)	(0.017)	(0.025)	(0.023)	(0.019)	(0.060)
Treat X NotOverEst	0.211***	0.085***	0.114***	0.122***	-0.047	0.343***
	(0.060)	(0.033)	(0.042)	(0.044)	(0.032)	(0.105)
OverEst	0.005	0.086***	0.056*	0.061*	-0.049*	0.172**
	(0.039)	(0.027)	(0.031)	(0.036)	(0.028)	(0.082)
Obs	1936	1936	1936	1936	1936	1936
Ctrl mean: NotOverEst	0.436	0.823	0.712	0.724	0.683	-0.171
Ctrl mean: OverEst	0.473	0.891	0.782	0.814	0.758	0.057
p: OverEst = NotOverEst	0.911	0.202	0.270	0.289	0.101	0.263

Notes: This table reports treatment effects on respondents' awareness of key government programs and development statistics, measured one month after viewing the informational video. Columns 1–4 capture awareness of (i) the Aspirational Districts program; (ii)local maternal and child health services (Anganwadi centers) ; (iii) the universal elementary education program (Sarva Shiksha Abhiyan) and (iv) the rural road development scheme (Pradhan Mantri Gram Sadak Yojana). Column 5 measures awareness of government-reported development statistics in the respondent's district, such as the number of households with access to toilets. Column 6 presents an overall Awareness Index, constructed as a latent trait using factor analysis of responses in Columns 1–4. All regressions follow the specification in Section 4, where T denotes assignment to the information treatment. Covariates are selected via double LASSO. Standard errors are clustered at the village level. $p < 0.10$, $p<0.05$, $p<0.01$.

Table 15: Citizen satisfaction from public service delivery

	Health	Education	Infrastructure	Overall factor
	(1)	(2)	(3)	(4)
Panel A: Just after				
Treat X OverEst	-0.133***	-0.183***	-0.125**	-0.161***
	(0.046)	(0.052)	(0.055)	(0.046)
Treat X NotOverEst	0.006	0.012	0.002	0.008
	(0.067)	(0.061)	(0.090)	(0.060)
OverEst	0.197**	0.092	0.046	0.137
	(0.090)	(0.086)	(0.100)	(0.087)
Obs	2107	2107	2107	2107
Ctrl mean: NotOverEst	3.572	3.572	3.261	-0.068
Ctrl mean: OverEst	3.717	3.609	3.296	0.022
p: OverEst = NotOverEst	0.093	0.021	0.240	0.035
Panel B: +1 month				
Treat X OverEst	-0.041	-0.012	-0.007	-0.030
	(0.035)	(0.032)	(0.042)	(0.040)
Treat X NotOverEst	-0.035	-0.065	0.033	-0.047
	(0.064)	(0.058)	(0.068)	(0.076)
OverEst	0.020	0.027	0.077	0.050
	(0.068)	(0.061)	(0.079)	(0.084)
Obs	1936	1936	1936	1936
Ctrl mean: NotOverEst	3.901	3.840	3.650	-0.066
Ctrl mean: OverEst	3.978	3.896	3.696	0.022
p: OverEst = NotOverEst	0.933	0.406	0.644	0.850

Notes: This table presents treatment effects on respondents' satisfaction with key public services in their district, measured immediately after viewing the informational video. Respondents were asked: "How satisfied are you with the use of the following public services in your district?" Column 1 captures satisfaction with healthcare and nutrition services for children. Column 2 reflects satisfaction with the number of teachers per classroom. Column 3 reports satisfaction with roads in the community. Column 4 presents an overall Satisfaction Index, constructed as a latent trait using factor analysis of responses in Columns 1–3. Regressions follow the specification described in Section 4, with T indicating assignment to the information treatment. Covariates are selected using double LASSO. Standard errors are clustered at the village level. $p < 0.10$, $p<0.05$, $p<0.01$

Table 16: Citizen's trust in different institutions

	Prime Minister (1)	Central Govt (2)	State Govt (3)	Local Govt (4)	Village body (5)	Elections (6)	Govt Stats (7)	Overall factor (8)
Panel A: Just after								
Treat X OverEst	0.002	-0.006	-0.039*	-0.013	-0.038***	-0.019	0.009	-0.071
	(0.013)	(0.014)	(0.021)	(0.019)	(0.014)	(0.013)	(0.018)	(0.050)
Treat X NotOverEst	-0.009	-0.008	-0.053*	-0.007	0.004	-0.002	0.034	-0.041
	(0.017)	(0.017)	(0.030)	(0.021)	(0.015)	(0.020)	(0.034)	(0.061)
OverEst	-0.034	-0.024	-0.061**	-0.041*	-0.007	-0.047**	-0.053	-0.157**
	(0.020)	(0.019)	(0.028)	(0.025)	(0.020)	(0.022)	(0.036)	(0.072)
Obs	2107	2107	2107	2107	2107	2107	2107	2107
Ctrl mean: NotOverEst	0.965	0.946	0.895	0.926	0.938	0.942	0.759	0.154
Ctrl mean: OverEst	0.907	0.918	0.852	0.868	0.925	0.893	0.654	-0.049
p: OverEst = NotOverEst	0.564	0.912	0.697	0.849	0.067	0.486	0.546	0.698
Panel B: +1 month								
Treat X OverEst	-0.002	-0.007	-0.023**	-0.000	-0.004	-0.000	0.030*	-0.050
	(0.009)	(0.010)	(0.010)	(0.011)	(0.009)	(0.010)	(0.017)	(0.052)
Treat X NotOverEst	0.013	-0.003	0.013	0.008	0.006	-0.005	-0.019	0.050
	(0.011)	(0.015)	(0.021)	(0.012)	(0.013)	(0.016)	(0.030)	(0.076)
OverEst	-0.003	0.007	0.013	-0.008	-0.004	-0.011	-0.007	-0.008
	(0.013)	(0.013)	(0.018)	(0.015)	(0.014)	(0.015)	(0.026)	(0.084)
Obs	1936	1936	1936	1936	1936	1936	1936	1936
Ctrl mean: NotOverEst	0.975	0.971	0.951	0.979	0.975	0.979	0.823	0.032
Ctrl mean: OverEst	0.970	0.967	0.962	0.967	0.973	0.962	0.804	-0.011
p: OverEst = NotOverEst	0.311	0.807	0.140	0.591	0.495	0.797	0.152	0.301

Notes: This table presents treatment effects on respondents' satisfaction with key public services in their district, measured immediately after viewing the informational video. Respondents were asked: "How satisfied are you with the use of the following public services in your district?" Column 1 captures satisfaction with healthcare and nutrition services for children. Column 2 reflects satisfaction with the number of teachers per classroom. Column 3 reports satisfaction with roads in the community. Column 4 presents an overall Satisfaction Index, constructed as a latent trait using factor analysis of responses in Columns 1–3. Regressions follow the specification described in Section 4, with T indicating assignment to the information treatment. Covariates are selected using double LASSO. Standard errors are clustered at the village level. $p < 0.10$, $p<0.05$, $p<0.01$

11 Figures

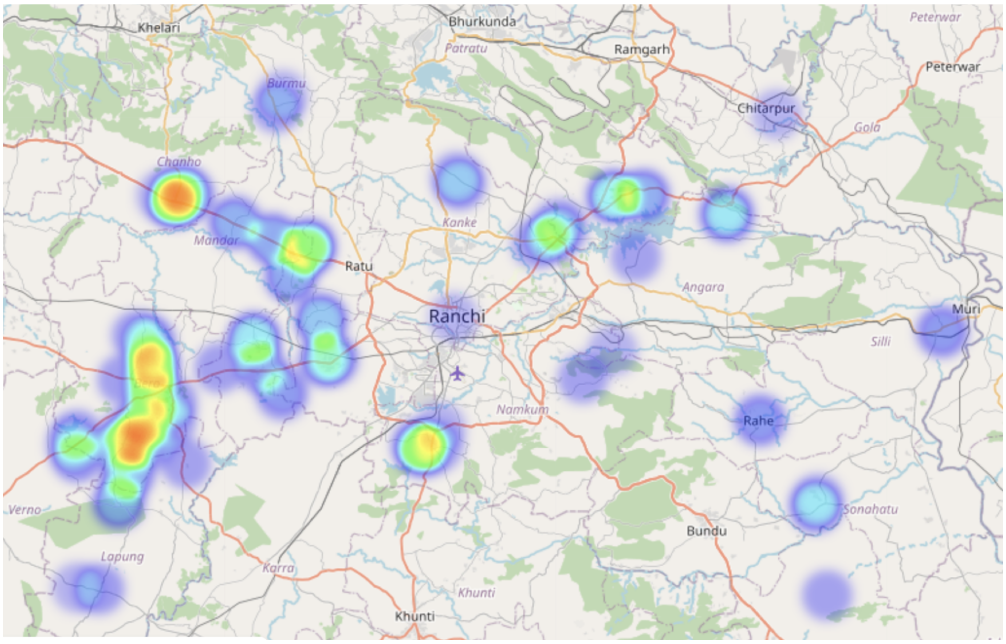


Figure 6: Heatmap of households included in the survey

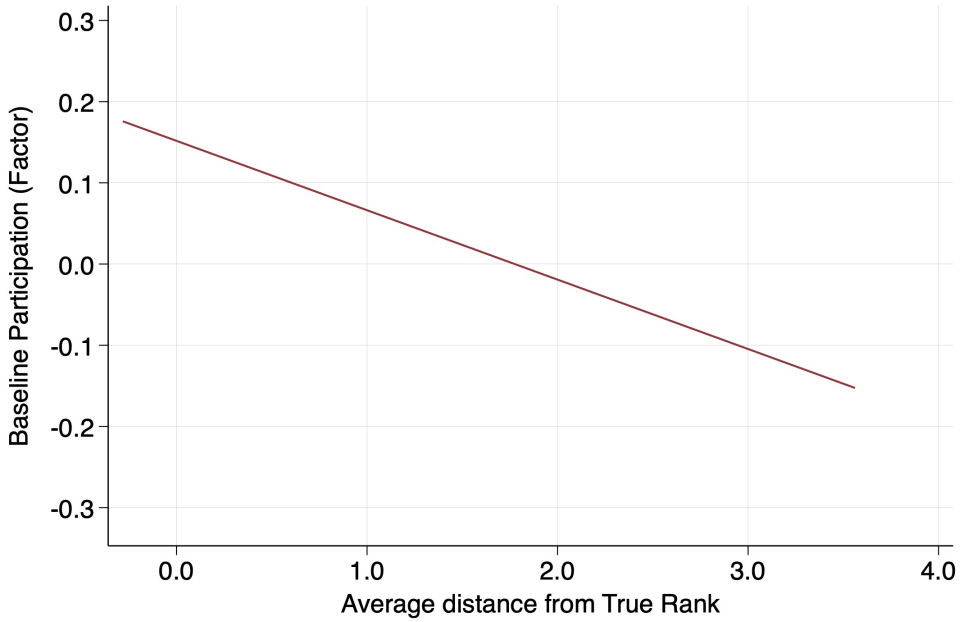


Figure 7: Correlation between participation and average rank misperception before intervention

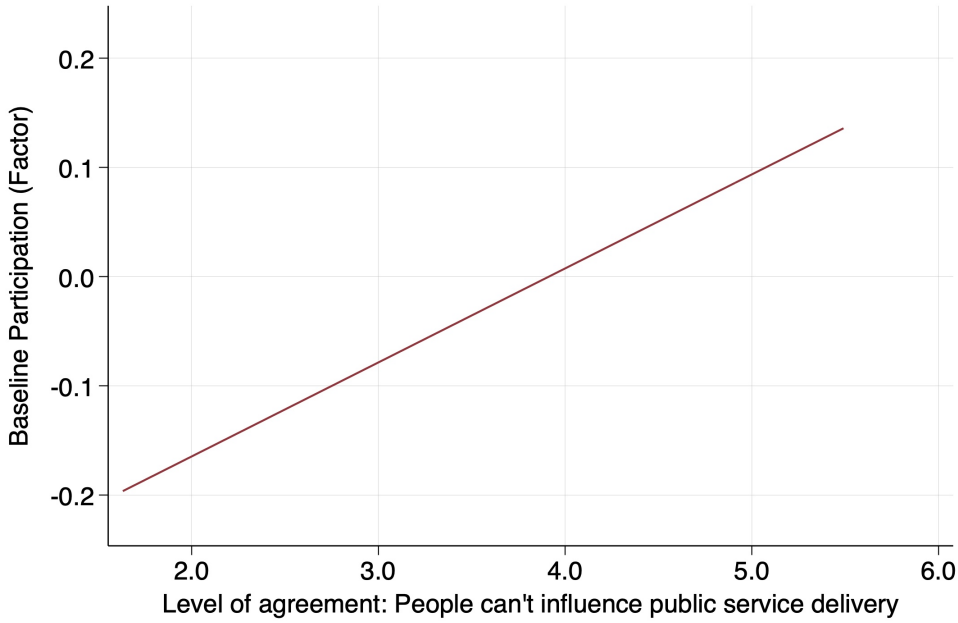


Figure 8: Correlation between participation and average rank misperception before intervention

Appendix | For Online Publication

A.1 Figures

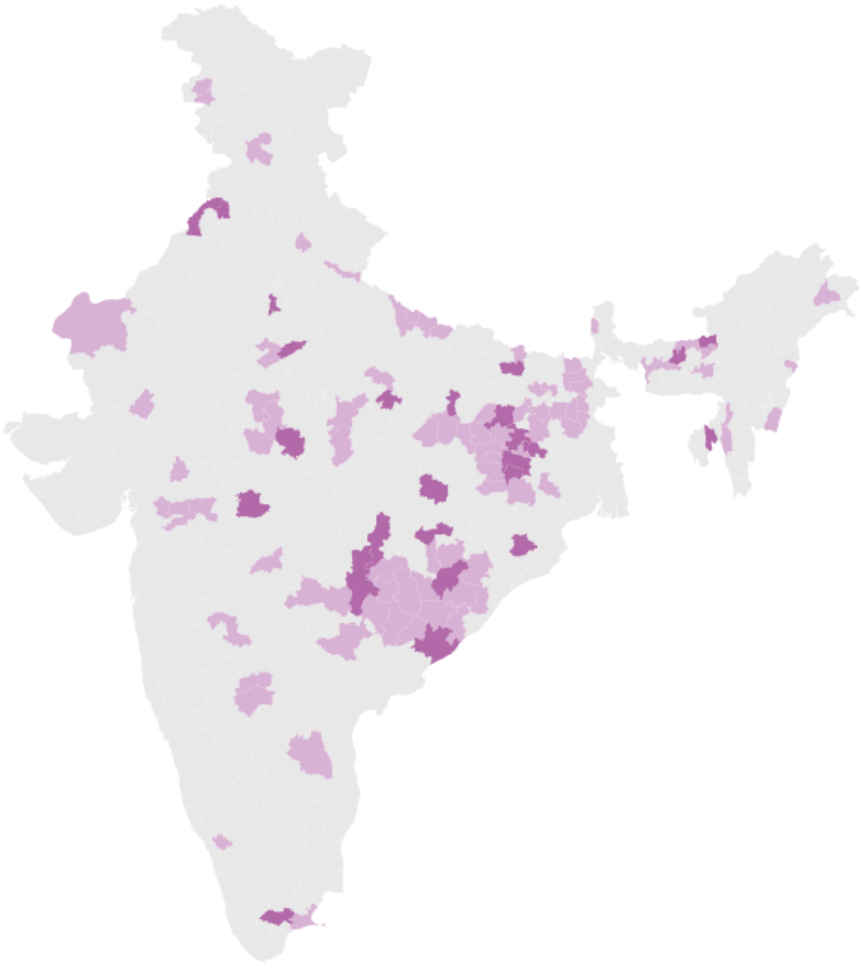


Figure A.1: 112 Aspirational Districts in India

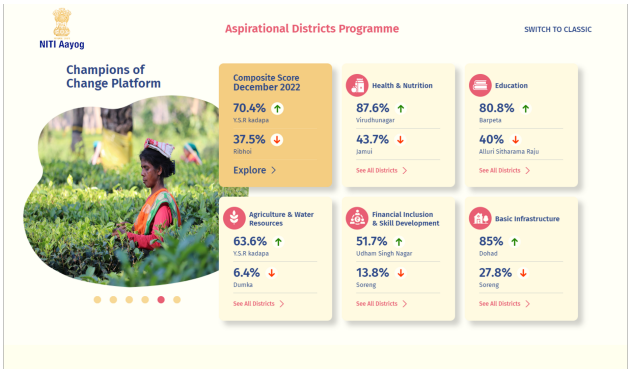


Figure A.2: Champions of Change Dashboard: Home page

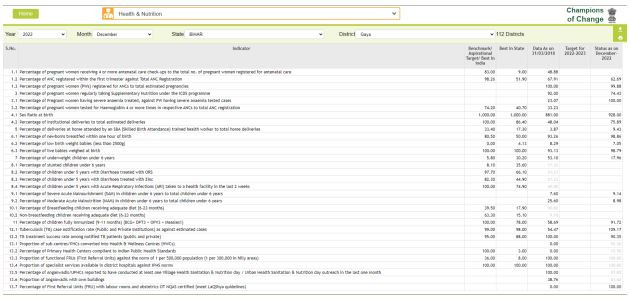


Figure A.3: Details of State Performance on Health and Nutrition indicators on Champions of Change Dashboard

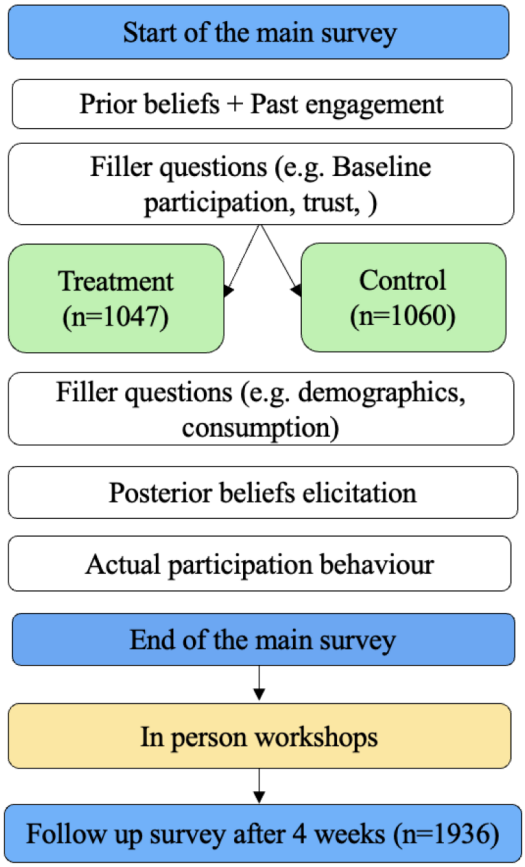


Figure A.4: Experimental Design

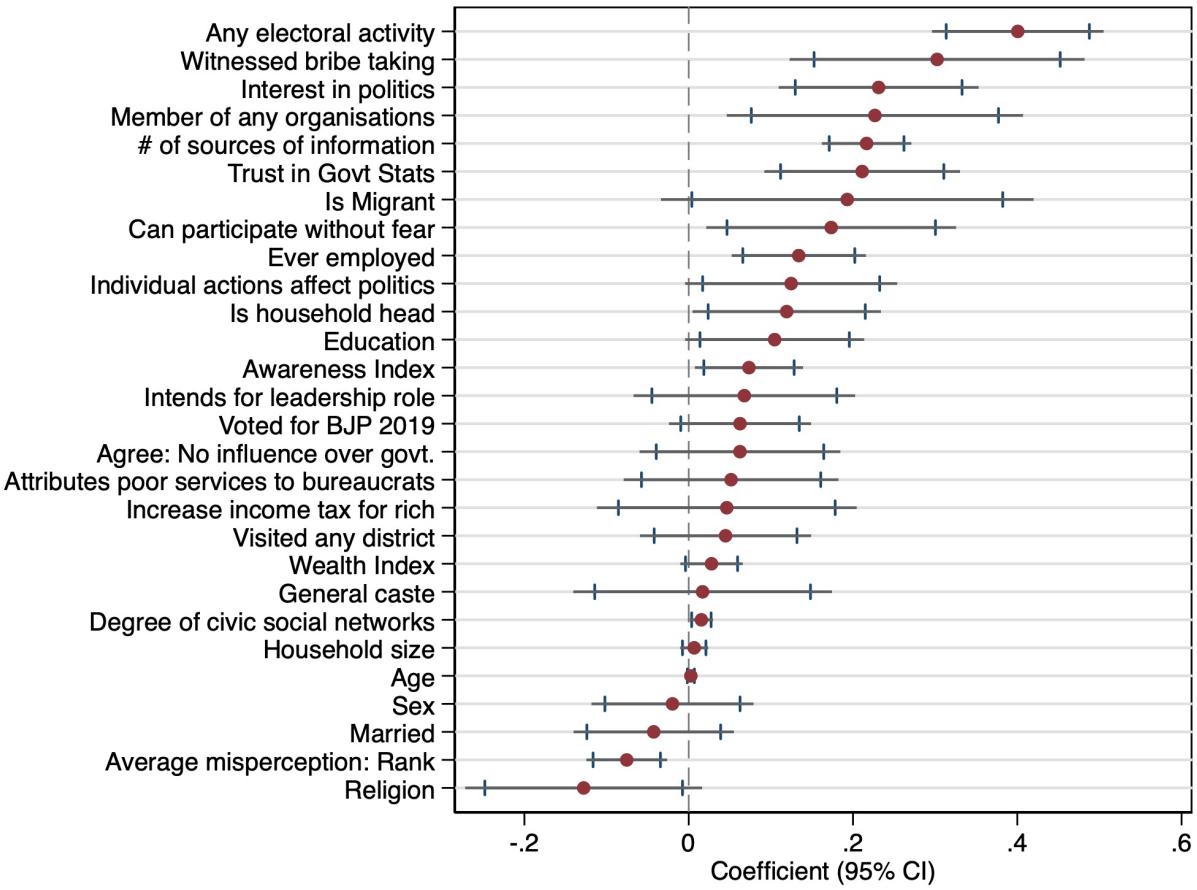


Figure A.5: Correlates of baseline civic participation factor

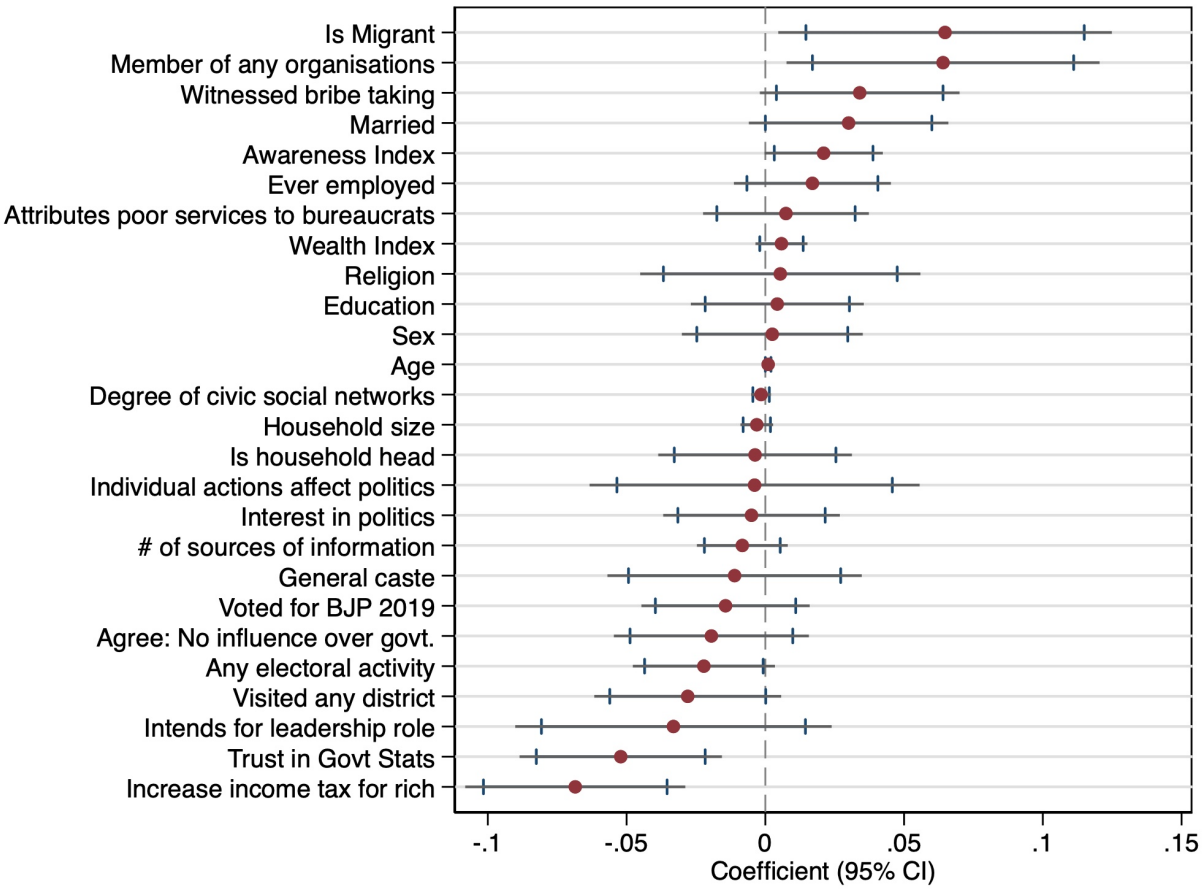


Figure A.6: Correlates of baseline misperception on district's rank

A.2 Balance tables

A.2.1 Demographic Characteristics

Table A.1: Demographic Characteristics of the respondents

	(1)	(2)	(3)	(4)
				Difference
Variable	Control	Treatment	Mean	Standardized
Age (years)	36.071	35.906	-0.164	-0.010
	(11.136)	(11.015)	(0.424)	
Female	0.553	0.539	-0.014	-0.020
	(0.497)	(0.499)	(0.027)	
Married	0.845	0.840	-0.005	-0.009
	(0.362)	(0.366)	(0.015)	
Any education	0.758	0.746	-0.012	-0.019
	(0.429)	(0.436)	(0.021)	
Hindu/Sarna	0.868	0.871	0.003	0.007
	(0.339)	(0.335)	(0.011)	
Backward class	0.513	0.500	-0.014	-0.019
	(0.500)	(0.500)	(0.017)	
HH size (winsorized)	5.245	5.317	0.072	0.025
	(1.996)	(2.043)	(0.101)	
# of children in the HH (winsorized)	1.576	1.612	0.036	0.020
	(1.293)	(1.300)	(0.059)	
Is HH head	0.525	0.494	-0.032	-0.045
	(0.500)	(0.500)	(0.025)	
Ever visited: Gumla	0.463	0.492	0.029	0.041
	(0.499)	(0.500)	(0.020)	
Ever visited: Hazaribagh	0.349	0.357	0.008	0.012
	(0.477)	(0.479)	(0.019)	
Ever visited: Ramgarh	0.430	0.475	0.045*	0.063
	(0.495)	(0.500)	(0.022)	
Ever visited: Khunti	0.486	0.544	0.059**	0.083
	(0.500)	(0.498)	(0.022)	
Ever visited: Lohardaga	0.469	0.474	0.005	0.007
	(0.499)	(0.500)	(0.020)	
Ever visited: None	0.244	0.219	-0.026	-0.043
	(0.430)	(0.414)	(0.021)	
Is a migrant	0.089	0.098	0.010	0.024
	(0.284)	(0.298)	(0.013)	
Wealth Index 1	-0.011	0.011	0.023	0.010
	(1.613)	(1.607)	(0.065)	
Control over life Index	5.973	6.085	0.112	0.030
	(2.632)	(2.595)	(0.103)	
Observations	1,060	1,047	2,107	

Notes: This Table shows the descriptive statistics of respondent characteristics. Column 1 and 2 report the mean and the standard deviation in brackets. These differences are obtained by regressing each variable on the treatment indicator, and the tests of significance are based on the regression estimates (* $p < 0.10$, ** $p < 0.05$, ***$p < 0.01$). Column 3 reports the difference in means of the treatment and control group (Column 2 - Column 1) and the significance of the differences. Columns 4 reports the normalized difference between the treatment and control group, computed as the difference in means in the relevant treatment and control observations divided by the square root of the sum of the variances. All index variables have been standardized with respect to the control group and monetary values are in Indian National Rupee (INR) and are winsorized at the top 99th percentile. Refused and Don't know responses have been coded as 0 during the data cleaning stage.

A.2.2 Prior Beliefs about government performance

Table A.2: Prior Beliefs about district's rank and ability to make a change

	(1)	(2)	(3)	(4)
			Difference	
Variable	Control	Treatment	Mean	Standardized
Beliefs about district's rank				
# of very very light children under 6	2.786	2.881	0.095	0.047
	(1.434)	(1.446)	(0.185)	
# of schools not complying with pupil-teacher ratio	3.219	3.338	0.119**	0.057
	(1.459)	(1.480)	(0.040)	
# of habitations with access to bad roads	3.495	3.662	0.167***	0.074
	(1.605)	(1.594)	(0.009)	
Overall factor	0.000	0.101	0.101**	0.072
	(1.000)	(0.992)	(0.017)	
Misperceived about district's rank on:				
# of very very light children under 6	0.823	0.814	-0.009	-0.016
	(0.382)	(0.389)	(0.632)	
# of schools not complying with pupil-teacher ratio	0.589	0.549	-0.039*	-0.056
	(0.492)	(0.498)	(0.074)	
# of habitations with access to bad roads	0.879	0.857	-0.023**	-0.047
	(0.326)	(0.351)	(0.037)	
Misperceived on average	0.758	0.733	-0.025	-0.041
	(0.429)	(0.443)	(0.159)	
Beliefs about ability to make a change				
Citizens can participate in protests without fear	0.898	0.905	0.007	0.017
	(0.303)	(0.293)	(0.561)	
Citizens can report public service issues without fear	0.915	0.920	0.005	0.012
	(0.279)	(0.272)	(0.710)	
Citizens can remove a government through elections	0.935	0.926	-0.008	-0.024
	(0.247)	(0.261)	(0.478)	
Citizens don't have an influence over public service delivery	0.896	0.903	0.006	0.015
	(0.305)	(0.297)	(0.666)	
Certainty about belief responses	0.979	0.983	0.004	0.018
	(0.143)	(0.130)	(0.535)	
Observations	1,060	1,047	2,107	

Notes: This Table shows the descriptive statistics of respondent's beliefs about relative perfomance of their district and if the government has been successful in promoting public service delivery. Column 1 and 2 report the mean and the standard deviation of observations in the control and treatment group respectively. These differences are obtained by regressing each variable on the treatment indicator, and the tests of significance are based on the regression estimates (* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$). Column 3 reports the difference in means of the treatment and control group (Column 2 - Column 1) and the significance of the differences. Columns 4 reports the normalized difference between the treatment and control group, computed as the difference in means in the relevant treatment and control observations divided by the square root of the sum of the variances. All index variables have been standardized with respect to the control group and monetary values are in Indian National Rupee (INR) and are winsorized at the top 99th percentile. Refused and Don't know responses have been coded as 0 during the data cleaning stage.

A.2.3 Awareness, Trust about Government Programs and statistics

Table A.3: Awareness, Trust about Government Programs and statistics

	(1)	(2)	(3)	(4)
				Difference
Variable	Control	Treatment	Mean	Standardized
ADP	0.093	0.101	0.008	0.019
	(0.291)	(0.302)	(0.497)	
Pradhan Mantri Gram Sadak Yojana	0.680	0.684	0.004	0.006
	(0.467)	(0.465)	(0.864)	
Anganwadi centres	0.925	0.910	-0.015	-0.039
	(0.263)	(0.286)	(0.264)	
Sarva Shiksha Abhiyan	0.788	0.793	0.005	0.009
	(0.409)	(0.406)	(0.789)	
Statistics by govt agencies	0.539	0.508	-0.031	-0.043
	(0.499)	(0.500)	(0.215)	
Macroeconomics statistics	0.575	0.570	-0.004	-0.006
	(0.495)	(0.495)	(0.864)	
Development statistics	0.612	0.609	-0.003	-0.004
	(0.487)	(0.488)	(0.897)	
Trust in Govt statistics	0.679	0.688	0.008	0.013
	(0.467)	(0.464)	(0.674)	
Observations	1,060	1,047	2,107	

Notes: This Table shows the descriptive statistics of respondent's awareness about the government programs, source of information, knowledge about government statistics and trust in them. Column 1 and 2 report the mean and the standard deviation of observations in the control and treatment group respectively. These differences are obtained by regressing each variable on the treatment indicator, and the tests of significance are based on the regression estimates (* $p < 0.10$, ** $p < 0.05$, ***$p < 0.01$). Column 3 reports the difference in means of the treatment and control group (Column 2 - COlumn 1) and the significance of the differences. Columns 4 reports the normalized difference between the treatment and control group, computed as the difference in means in the relevant treatment and control observations divided by the square root of the sum of the variances. All index variables have been standardized with respect to the control group and monetary values are in Indian National Rupee (INR) and are winsorized at the top 99th percentile. Refused and Don't know responses have been coded as 0 during the data cleaning stage.

A.2.4 Sources of information

Table A.4: Sources of information

	(1)	(2)	(3)	(4)
			Difference	
Variable	Control	Treatment	Mean	Standardized
Source of information:				
Television	0.542	0.560	0.017	0.025
	(0.498)	(0.497)	(0.420)	
Newspaper	0.423	0.425	0.002	0.003
	(0.494)	(0.495)	(0.926)	
Internet or social media	0.696	0.721	0.025	0.039
	(0.460)	(0.449)	(0.204)	
Radio	0.057	0.052	-0.005	-0.016
	(0.231)	(0.221)	(0.653)	
Discussion with peers	0.870	0.855	-0.015	-0.031
	(0.337)	(0.352)	(0.413)	
District Officers	0.460	0.483	0.023	0.032
	(0.499)	(0.500)	(0.326)	
Gram Panchayats	0.834	0.844	0.010	0.020
	(0.372)	(0.363)	(0.502)	
Other channels	0.294	0.313	0.019	0.029
	(0.456)	(0.464)	(0.368)	
Observations	1,060	1,047	2,107	

Notes: This Table shows the descriptive statistics of respondent's source of information. Column 1 and 2 report the mean and the standard deviation of observations in the control and treatment group respectively. These differences are obtained by regressing each variable on the treatment indicator, and the tests of significance are based on the regression estimates (* $p < 0.10$, ** $p < 0.05$, ***$p < 0.01$). Column 3 reports the difference in means of the treatment and control group (Column 2 - COlumn 1) and the significance of the differences. Columns 4 reports the normalized difference between the treatment and control group, computed as the difference in means in the relevant treatment and control observations divided by the square root of the sum of the variances. All index variables have been standardized with respect to the control group and monetary values are in Indian National Rupee (INR) and are winsorized at the top 99th percentile. Refused and Don't know responses have been coded as 0 during the data cleaning stage.

A.3 Social networks and organizational memberships

Table A.5: Social networks and organizational memberships

	(1)	(2)	(3)	(4)
			Difference	
Variable	Control	Treatment	Mean	Standardized
Network for discussing:				
Politics	3.567	3.199	-0.368*	-0.051
	(5.368)	(4.758)	(0.090)	
State of malnutrition	3.035	3.009	-0.026	-0.003
	(5.311)	(5.429)	(0.916)	
Infrastructure	7.705	7.715	0.011	0.001
	(13.813)	(13.221)	(0.982)	
Education quality for children	6.399	6.267	-0.132	-0.009
	(10.808)	(10.780)	(0.722)	
Seeking help/problem	6.360	6.665	0.304	0.031
	(6.972)	(7.111)	(0.252)	
Member of:				
Political parties	0.170	0.177	0.007	0.013
	(0.376)	(0.382)	(0.690)	
Community associations	0.208	0.222	0.013	0.023
	(0.406)	(0.416)	(0.540)	
Farmer unions	0.179	0.188	0.009	0.016
	(0.384)	(0.391)	(0.629)	
Public groups	0.176	0.178	0.001	0.002
	(0.381)	(0.382)	(0.940)	
Student associations	0.165	0.167	0.002	0.004
	(0.371)	(0.373)	(0.909)	
Observations	1,060	1,047	2,107	

Notes: This Table shows the descriptive statistics of respondent's social networks and membership in organisations. Column 1 and 2 report the mean and the standard errors in brackets. Column 3 reports the difference in means of the treatment and control group (Column 2 - Column 1). These differences have been obtained by regressing each variable on the treatment indicator, and the tests of significance are based on the regression estimates. Reported P-values depicted in Column 3 (* $p < 0.10$, ** $p < 0.05$, ***$p < 0.01$) have been corrected for Multiple Hypothesis Testing using the Romano-Wolf correction procedure. Columns 4 reports the standardized difference between the treatment and control group, computed as the difference in means in the relevant treatment and control observations divided by the square root of the sum of the variances. Variables have winsorized at the top 99th percentile. Refused and Don't know responses have been coded as 0 during the data cleaning stage.

A.4 Prior participation behavior

Table A.6: Prior Participation Behaviour

	(1)	(2)	(3)	(4)
			Difference	
Variable	Control	Treatment	Mean	Standardized
Individual participation				
Participated in private initiatives (e.g. by NGOs)	0.191	0.218	0.027	0.048
	(0.393)	(0.413)	(0.149)	
Filed/considered a Right to Information application	0.104	0.110	0.006	0.014
	(0.305)	(0.313)	(0.651)	
Raised a complaint on govt. portals	0.147	0.175	0.028	0.053
	(0.354)	(0.380)	(0.150)	
Donated money for a citizen-organized event/protest	0.138	0.173	0.035*	0.069
	(0.345)	(0.378)	(0.052)	
Used social media to express opinions about govt	0.098	0.104	0.006	0.014
	(0.298)	(0.306)	(0.678)	
Overall factor	0.000	0.081	0.081	0.056
	(1.000)	(1.048)	(0.137)	
Collective participation				
Met with any civil servants or officials	0.326	0.310	-0.016	-0.024
	(0.469)	(0.463)	(0.510)	
Attended Gram Sabha	0.828	0.814	-0.015	-0.027
	(0.377)	(0.389)	(0.308)	
Met with health workers/school heads	0.441	0.486	0.046**	0.065
	(0.497)	(0.500)	(0.030)	
Group talk for discussing govt. services	0.428	0.455	0.026	0.037
	(0.495)	(0.498)	(0.274)	
Overall factor	0.000	0.063	0.063	0.044
	(1.000)	(1.024)	(0.191)	
Observations	1,060	1,047	2,107	

Notes: This Table shows the descriptive statistics of respondent's awareness about the government programs, source of information, knowledge about government statistics and trust in them. Column 1 and 2 report the mean and the standard deviation of observations in the control and treatment group respectively. These differences are obtained by regressing each variable on the treatment indicator, and the tests of significance are based on the regression estimates (* $p < 0.10$, ** $p < 0.05$, ***$p < 0.01$). Column 3 reports the difference in means of the treatment and control group (Column 2 - COlumn 1) and the significance of the differences. Columns 4 reports the normalized difference between the treatment and control group, computed as the difference in means in the relevant treatment and control observations divided by the square root of the sum of the variances. All index variables have been standardized with respect to the control group and monetary values are in Indian National Rupee (INR) and are winsorized at the top 99th percentile. Refused and Don't know responses have been coded as 0 during the data cleaning stage.

A.5 Electoral participation and reasons to vote

Table A.7: Electoral participation and reasons to vote

	(1)	(2)	(3)	(4)
				Difference
Variable	Control	Treatment	Mean	Standardized
Voted for BJP in 2019	0.609	0.611	0.002	0.003
	(0.488)	(0.488)	(0.923)	
Did not vote in 2019 elections	0.074	0.061	-0.012	-0.035
	(0.261)	(0.240)	(0.294)	
Voted for other parties in 2019 elections	0.391	0.389	-0.002	-0.003
	(0.488)	(0.488)	(0.923)	
Reasons to vote:				
Candidate's party	0.235	0.228	-0.007	-0.011
	(0.424)	(0.420)	(0.712)	
Candidate's caste	0.061	0.060	-0.001	-0.003
	(0.240)	(0.238)	(0.912)	
Candidate's religion	0.018	0.014	-0.004	-0.020
	(0.133)	(0.119)	(0.479)	
Candidate's gender	0.001	0.001	0.000	0.000
	(0.031)	(0.031)	(0.993)	
Cash/liquor/gifts	0.004	0.002	-0.002	-0.025
	(0.061)	(0.044)	(0.428)	
Development of district	0.120	0.122	0.002	0.005
	(0.325)	(0.328)	(0.874)	
Candidate's promises	0.109	0.111	0.001	0.003
	(0.312)	(0.314)	(0.918)	
Ever tried to:				
Attend a campaign meeting or rally?	0.242	0.276	0.034*	0.054
	(0.429)	(0.447)	(0.085)	
Persuade others to vote for a certain candidate	0.172	0.179	0.007	0.013
	(0.377)	(0.383)	(0.699)	
Help or work for a party or candidate running for election	0.123	0.127	0.004	0.009
	(0.328)	(0.333)	(0.759)	
Observations	1,060	1,047	2,107	

Notes: This Table shows the descriptive statistics of respondent's participation in elections, voting preferences and reasons for voting. Column 1 and 2 report the mean and the standard deviation of observations in the control and treatment group respectively. These differences are obtained by regressing each variable on the treatment indicator, and the tests of significance are based on the regression estimates (* $p < 0.10$, ** $p < 0.05$, ***$p < 0.01$). Column 3 reports the difference in means of the treatment and control group (Column 2 - Column 1) and the significance of the differences. Columns 4 reports the normalized difference between the treatment and control group, computed as the difference in means in the relevant treatment and control observations divided by the square root of the sum of the variances. All index variables have been standardized with respect to the control group and monetary values are in Indian National Rupee (INR) and are winsorized at the top 99th percentile. Refused and Don't know responses have been coded as 0 during the data cleaning stage.

A.6 Participation in politics and beliefs about community

Table A.8: Participation in politics and beliefs about community

	(1)	(2)	(3)	(4)
				Difference
Variable	Control	Treatment	Mean	Standardized
Personally witnessed bribe-taking	0.082	0.097	0.015	0.038
	(0.275)	(0.297)	(0.321)	
Ever paid bribe themselves	0.131	0.138	0.007	0.015
	(0.338)	(0.346)	(0.634)	
Community supports political participation	0.867	0.852	-0.015	-0.031
	(0.340)	(0.355)	(0.372)	
Community encourages participation with local govt	0.933	0.933	0.000	0.000
	(0.250)	(0.250)	(0.988)	
Willing to take leadership role in community	0.908	0.916	0.007	0.019
	(0.288)	(0.278)	(0.505)	
Attributes govt performance to:				
The diplomats and bureaucrats	0.533	0.548	0.015	0.022
	(0.499)	(0.498)	(0.420)	
Bureaucratic inefficiencies	0.365	0.362	-0.003	-0.005
	(0.482)	(0.481)	(0.883)	
Political leader in power in district	0.408	0.425	0.017	0.024
	(0.492)	(0.495)	(0.453)	
Political party in power in district	0.309	0.322	0.012	0.019
	(0.462)	(0.467)	(0.510)	
Citizens	0.267	0.296	0.029	0.046
	(0.443)	(0.457)	(0.111)	
External Donors	0.011	0.013	0.002	0.013
	(0.106)	(0.115)	(0.677)	
Both bureaucratic inefficiencies and political leadership	0.080	0.075	-0.005	-0.012
	(0.272)	(0.264)	(0.690)	
Observations	1,060	1,047	2,107	

Notes: This Table shows the descriptive statistics of respondent's participation in elections, voting preferences and reasons for voting. Column 1 and 2 report the mean and the standard deviation of observations in the control and treatment group respectively. These differences are obtained by regressing each variable on the treatment indicator, and the tests of significance are based on the regression estimates (* $p < 0.10$, ** $p < 0.05$, ***$p < 0.01$). Column 3 reports the difference in means of the treatment and control group (Column 2 - Column 1) and the significance of the differences. Columns 4 reports the normalized difference between the treatment and control group, computed as the difference in means in the relevant treatment and control observations divided by the square root of the sum of the variances. All index variables have been standardized with respect to the control group and monetary values are in Indian National Rupee (INR) and are winsorized at the top 99th percentile. Refused and Don't know responses have been coded as 0 during the data cleaning stage.

A.7 Perceived measures to improve accountability

Table A.9: Perceived measures to improve accountability

	(1)	(2)	(3)	(4)
			Difference	
Variable	Control	Treatment	Mean	Standardized
Improve grievance redressal systems	0.740	0.732	-0.008	-0.013
	(0.439)	(0.443)	(0.630)	
Increase transparency	0.532	0.521	-0.011	-0.015
	(0.499)	(0.500)	(0.611)	
Citizen participation in policy and implementation	0.474	0.478	0.004	0.006
	(0.500)	(0.500)	(0.861)	
Enhance monitoring and evaluation of service delivery	0.464	0.469	0.005	0.007
	(0.499)	(0.499)	(0.824)	
Provide avenues for citizen feedback	0.296	0.308	0.011	0.017
	(0.457)	(0.462)	(0.562)	
Implement stricter penalties for corruption and inefficiency	0.378	0.383	0.005	0.007
	(0.485)	(0.486)	(0.831)	
No need	0.004	0.007	0.003	0.029
	(0.061)	(0.082)	(0.489)	
Observations	1,060	1,047	2,107	

Notes: This Table shows the descriptive statistics of respondent's perceived measures or policies should the government adopt to improve accountability in service delivery. Column 1 and 2 report the mean and the standard deviation of observations in the control and treatment group respectively. These differences are obtained by regressing each variable on the treatment indicator, and the tests of significance are based on the regression estimates (* $p < 0.10$, ** $p < 0.05$, ***$p < 0.01$). Column 3 reports the difference in means of the treatment and control group (Column 2 - Column 1) and the significance of the differences. Columns 4 reports the normalized difference between the treatment and control group, computed as the difference in means in the relevant treatment and control observations divided by the square root of the sum of the variances. All index variables have been standardized with respect to the control group and monetary values are in Indian National Rupee (INR) and are winsorized at the top 99th percentile. Refused and Don't know responses have been coded as 0 during the data cleaning stage.

A.8 Purpose of the study, attention and memory

Table A.10: Purpose of the study, attention and memory

	(1)	(2)	(3)	(4)
				Difference
Variable	Control	Treatment	Mean	Standardized
Social Desirability Index	-0.012	0.012	0.024	0.016
	(1.042)	(1.023)	(0.542)	
Purpose of the study:				
Effect of information on beliefs	0.576	0.564	-0.012	-0.017
	(0.494)	(0.496)	(0.543)	
Effect of information on citizen participation	0.135	0.125	-0.010	-0.021
	(0.342)	(0.331)	(0.446)	
Could recall images shown before (memory)	0.916	0.917	0.001	0.002
	(0.277)	(0.276)	(0.947)	
Attention	0.918	0.919	0.001	0.002
	(0.275)	(0.273)	(0.945)	
Observations	1,060	1,047	2,107	

Notes: This Table shows the descriptive statistics of respondent's knowledge about the purpose of the study, attention and test of memory. Column 1 and 2 report the mean and the standard deviation of observations in the control and treatment group respectively. These differences are obtained by regressing each variable on the treatment indicator, and the tests of significance are based on the regression estimates (* $p < 0.10$, ** $p < 0.05$, ***$p < 0.01$). Column 3 reports the difference in means of the treatment and control group (Column 2 - COlumn 1) and the significance of the differences. Columns 4 reports the normalized difference between the treatment and control group, computed as the difference in means in the relevant treatment and control observations divided by the square root of the sum of the variances. All index variables have been standardized with respect to the control group and monetary values are in Indian National Rupee (INR) and are winsorized at the top 99th percentile. Refused and Don't know responses have been coded as 0 during the data cleaning stage.

A.9 Household consumption

Table A.11: Household consumption

	(1)	(2)	(3)	(4)
			Difference	
Variable	Control	Treatment	Mean	Standardized
Personal items	4555.194	4738.667	183.472	0.025
	(5014.233)	(5235.408)	(213.883)	
Medical expenses	2228.752	2387.364	158.612	0.027
	(4042.810)	(4333.654)	(168.644)	
Transportation	1088.173	1055.596	-32.577	-0.022
	(1052.451)	(1052.866)	(44.182)	
Household items	1250.433	1231.301	-19.132	-0.011
	(1202.614)	(1161.932)	(44.741)	
Household utility	5894.604	5872.379	-22.225	-0.002
	(10446.565)	(10174.935)	(505.548)	
Education	1732.000	1592.733	-139.267	-0.041
	(2603.050)	(2211.105)	(94.135)	
Other expenses	681.463	703.947	22.483	0.014
	(1098.578)	(1146.517)	(51.344)	
Total HH consumption (INR)	19079.713	18875.570	-204.143	-0.006
	(24770.947)	(22190.715)	(1027.702)	
Observations	1,060	1,047	2,107	

Notes: This Table shows the descriptive statistics of respondent's household consumption. Column 1 and 2 report the mean and the standard deviation of observations in the control and treatment group respectively. These differences are obtained by regressing each variable on the treatment indicator, and the tests of significance are based on the regression estimates (* $p < 0.10$, ** $p < 0.05$, ***$p < 0.01$). Column 3 reports the difference in means of the treatment and control group (Column 2 - COlumn 1) and the significance of the differences. Columns 4 reports the normalized difference between the treatment and control group, computed as the difference in means in the relevant treatment and control observations divided by the square root of the sum of the variances. All index variables have been standardized with respect to the control group and monetary values are in Indian National Rupee (INR) and are winsorized at the top 99th percentile. Refused and Don't know responses have been coded as 0 during the data cleaning stage.

A.10 Income generating activity

Table A.12: Income generating activity

	(1)	(2)	(3)	(4)
				Difference
Variable	Control	Treatment	Mean	Standardized
Ever worked	0.578	0.585	0.007	0.010
	(0.494)	(0.493)	(0.025)	
Worked in the last month	0.483	0.495	0.012	0.017
	(0.500)	(0.500)	(0.024)	
# of days worked in last month (winsorized)	9.430	9.642	0.212	0.013
	(11.199)	(11.080)	(0.537)	
% of hours worked in last month (winsorized)	3.680	3.811	0.131	0.023
	(3.988)	(4.028)	(0.186)	
Occupation				
Clerical	0.006	0.003	-0.003	-0.030
	(0.075)	(0.053)	(0.003)	
Farm proprietor, farm manager	0.007	0.004	-0.003	-0.027
	(0.081)	(0.062)	(0.003)	
Farm worker	0.164	0.177	0.013	0.024
	(0.371)	(0.382)	(0.015)	
Higher administrative service	0.004	0.008	0.004	0.036
	(0.061)	(0.087)	(0.004)	
Large scale businessman	0.010	0.009	-0.002	-0.013
	(0.101)	(0.092)	(0.004)	
Professional and technical (e.g. doctor)	0.009	0.010	0.000	0.001
	(0.097)	(0.097)	(0.004)	
Sales	0.045	0.053	0.008	0.027
	(0.208)	(0.225)	(0.007)	
Semi-skilled worker (e.g. bricklayer)	0.033	0.024	-0.009	-0.039
	(0.179)	(0.153)	(0.008)	
Service	0.004	0.006	0.002	0.020
	(0.061)	(0.076)	(0.003)	
Skilled worker (e.g. motor mechanic)	0.008	0.010	0.002	0.015
	(0.087)	(0.097)	(0.004)	
Small scale businessman	0.033	0.023	-0.010	-0.043
	(0.179)	(0.150)	(0.008)	
Unskilled worker (e.g. porter)	0.156	0.163	0.008	0.015
	(0.363)	(0.370)	(0.017)	
Observations	1,060	1,047	2,107	

Notes: This Table shows the descriptive statistics of respondent's engagement in income generating activities. Column 1 and 2 report the mean and the standard deviation of observations in the control and treatment group respectively. These differences are obtained by regressing each variable on the treatment indicator, and the tests of significance are based on the regression estimates (* p < 0.10, ** p < 0.05, ***p < 0.01). Column 3 reports the difference in means of the treatment and control group (Column 2 - COlumn 1) and the significance of the differences. Columns 4 reports the normalized difference between the treatment and control group, computed as the difference in means in the relevant treatment and control observations divided by the square root of the sum of the variances. All index variables have been standardized with respect to the control group and monetary values are in Indian National Rupee (INR) and are winsorized at the top 99th percentile. Refused and Don't know responses have been coded as 0 during the data cleaning stage.

Proofs | For Online Publication

Proof: Additive belief updating

Let r be the (unknown) district rank, s the observed signal, $\pi_i^0(r)$ the agent's prior density (or mass) over r, and $f(s \mid r)$ the likelihood of observing s conditional on the true state being r. Bayes' rule gives the posterior

$$\pi_i^1(r \mid s) = \frac{f(s \mid r)\, \pi_i^0(r)}{m(s)}, \qquad m(s) := \int f(s \mid r')\, \pi_i^0(r')\, dr'.$$

We take the agent's numerical belief to be the posterior mean $r_i^1 = \mathbb{E}[r \mid s]$. Then

$$r_i^1 = \int r\, \pi_i^1(r \mid s)\, dr = \frac{1}{m(s)} \int r\, f(s \mid r)\, \pi_i^0(r)\, dr.$$

Let the prior mean be $r_i^0 = \int r\, \pi_i^0(r)\, dr$. Subtracting yields

$$r_i^1 - r_i^0 = \frac{1}{m(s)} \int r\, f(s \mid r)\, \pi_i^0(r)\, dr - \int r\, \pi_i^0(r)\, dr = \underbrace{\Big(\mathbb{E}[r \mid s] - \mathbb{E}[r]\Big)}_{\delta_i},$$

so that

$$r_i^1 = r_i^0 + \delta_i,$$

with $\delta_i = \mathbb{E}[r \mid s] - \mathbb{E}[r]$. This identity holds for any likelihood $f(\cdot \mid \cdot)$ and any prior.

Hard (perfect) signal in our case. Our intervention reveals the true rank r^*, then $f(s \mid r) = \mathbf{1}\{r = r^*\}$, so the posterior collapses to $\pi_i^1(r \mid s) = \mathbf{1}\{r = r^*\}$ and $r_i^1 = r^*$. Hence

$$r_i^1 - r_i^0 = r^* - r_i^0,$$

and, defining distance from benchmark $\Delta_i^t = r_i^t - 1$, we obtain the additive update

$$\Delta_i^1 = \Delta_i^0 + (r^* - r_i^0).$$

Thus the additive specification $\Delta_i^1 = \Delta_i^0 + \delta_i$ follows directly from Bayes' rule, with δ_i equal to the posterior–prior mean difference (and equal to $r^* - r_i^0$ in the hard-signal case).

Non-Bayesian linear updating (heuristic). A common behavioral rule takes the form

$$r_i^1 = (1 - \lambda_i)\, r_i^0 + \lambda_i\, r^*, \qquad \lambda_i \in [0, 1],$$

which is a convex combination of prior and signal. Rearranging gives the additive change

$$r_i^1 - r_i^0 = \lambda_i\, (r^* - r_i^0),$$

and hence

$$\Delta_i^1 = \Delta_i^0 + \lambda_i\, (r^* - r_i^0).$$

This is the same algebraic form as the Bayesian case, with λ_i playing the role of an effective

learning weight. Heterogeneous or asymmetric λ_i (e.g., smaller λ when the signal contradicts the prior) captures confirmation bias or confidence-dependent updating. □

Proof: Comparative Statics

The change in participation probability following belief updates is:

$$\Delta\pi_i = \pi_i^1 - \pi_i^0 = \Lambda(Z_i^1 + I - c) - \Lambda(Z_i^0 + I - c)$$

where:

- $Z_i^0 = \Delta_i^0 p_i'^0$ (baseline perceived benefit)
- $Z_i^1 = (\Delta_i^0 + \delta_i)(p_i'^0 + \gamma_i)$ (post-intervention perceived benefit)

By the Mean Value Theorem, there exists $\xi_i \in [Z_i^0, Z_i^1]$ such that:

$$\Delta\pi_i = \lambda(\xi_i + I - c) \cdot (Z_i^1 - Z_i^0)$$

where $\lambda(\cdot) = \frac{e^x}{(1+e^x)^2}$ is the logistic probability density function. Substituting the decomposition:

$$\Delta\pi_i = \lambda(\xi_i + I - c) \cdot [\Delta_i^0 \gamma_i + \delta_i p_i'^0 + \delta_i \gamma_i]$$

First order conditions:

Taking partial derivatives of $\pi_i^1 = \Lambda((\Delta_i^0 + \delta_i)(p_i'^0 + \gamma_i) + I - c)$: With respect to δ_i:

$$\frac{\partial \pi_i^1}{\partial \delta_i} = \frac{\partial \Lambda(\cdot)}{\partial(\cdot)} \cdot \frac{\partial(\cdot)}{\partial \delta_i}$$

where $(\cdot) = (\Delta_i^0 + \delta_i)(p_i'^0 + \gamma_i) + I - c$.

$$\frac{\partial(\cdot)}{\partial \delta_i} = (p_i'^0 + \gamma_i)$$

Therefore:

$$\frac{\partial \pi_i^1}{\partial \delta_i} = \lambda(Z_i^1 + I - c) \cdot (p_i'^0 + \gamma_i) = \pi_i^1(1 - \pi_i^1) \cdot (p_i'^0 + \gamma_i)$$

With respect to γ_i:

$$\frac{\partial \pi_i^1}{\partial \gamma_i} = \lambda(Z_i^1 + I - c) \cdot (\Delta_i^0 + \delta_i) = \pi_i^1(1 - \pi_i^1) \cdot (\Delta_i^0 + \delta_i)$$

Since π_i^0 is independent of (δ_i, γ_i):

$$\frac{\partial \Delta\pi_i}{\partial \delta_i} = \pi_i^1(1 - \pi_i^1) \cdot (p_i'^0 + \gamma_i)$$

$$\frac{\partial \Delta\pi_i}{\partial \gamma_i} = \pi_i^1(1 - \pi_i^1) \cdot (\Delta_i^0 + \delta_i)$$

Cross-Partial Derivatives:

$$\frac{\partial^2 \Delta\pi_i}{\partial\delta_i \partial\gamma_i} = \frac{\partial}{\partial\gamma_i}[\pi_i^1(1-\pi_i^1)(p_i'^0 + \gamma_i)]$$

Using the product rule:

$$= (p_i'^0 + \gamma_i)\frac{\partial[\pi_i^1(1-\pi_i^1)]}{\partial\gamma_i} + \pi_i^1(1-\pi_i^1)\frac{\partial(p_i'^0+\gamma_i)}{\partial\gamma_i}$$

$$= (p_i'^0 + \gamma_i)\frac{\partial[\pi_i^1(1-\pi_i^1)]}{\partial\gamma_i} + \pi_i^1(1-\pi_i^1)$$

Now, $\frac{\partial[\pi_i^1(1-\pi_i^1)]}{\partial\gamma_i} = \frac{\partial\pi_i^1}{\partial\gamma_i}(1-2\pi_i^1) = \pi_i^1(1-\pi_i^1)(\Delta_i^0+\delta_i)(1-2\pi_i^1)$ Therefore:

$$\frac{\partial^2 \Delta\pi_i}{\partial\delta_i \partial\gamma_i} = \pi_i^1(1-\pi_i^1)[1 + (p_i'^0+\gamma_i)(\Delta_i^0+\delta_i)(1-2\pi_i^1)]$$

This cross-partial is positive when $\pi_i^1 \in (0.1, 0.9)$, indicating complementarity between updates on Δ and p.

Proofs of Main Theoretical Results

Proof of Theorem 1 (Accountability Channel Response by Efficacy Type). Proof of Theorem 1. Write $u_i := \Delta_i^0 p_i'^0 + I - c$ and $u_i^+ := u_i + p_i'^0\delta_i$. Then

$$\Delta\pi_i = \Lambda(u_i^+) - \Lambda(u_i), \qquad \Lambda(x) = \frac{1}{1+e^{-x}}.$$

(1) Monotonicity. By the chain rule,

$$\frac{\partial\Delta\pi_i}{\partial\delta_i} = \Lambda'(u_i^+)\,\frac{\partial u_i^+}{\partial\delta_i} = \Lambda'(u_i^+)\,p_i'^0.$$

Since $\Lambda'(x) = \Lambda(x)\big(1-\Lambda(x)\big) > 0$ for all x and $p_i'^0 > 0$, the derivative is strictly positive.

(2) Complementarity (cross-partial). Differentiate the expression above with respect to $p_i'^0$:

$$\frac{\partial^2\Delta\pi_i}{\partial\delta_i\,\partial p_i'^0} = \frac{\partial}{\partial p_i'^0}\Big(\Lambda'(u_i^+)\,p_i'^0\Big) = \Lambda''(u_i^+)\,\frac{\partial u_i^+}{\partial p_i'^0}\,p_i'^0 + \Lambda'(u_i^+),$$

where $\frac{\partial u_i^+}{\partial p_i'^0} = \Delta_i^0 + \delta_i$ and $\Lambda''(x) = \Lambda'(x)\big(1-2\Lambda(x)\big)$. Substituting yields

$$\frac{\partial^2\Delta\pi_i}{\partial\delta_i\,\partial p_i'^0} = \Lambda'(u_i^+)\Big[1 + p_i'^0(\Delta_i^0+\delta_i)\big(1-2\Lambda(u_i^+)\big)\Big].$$

Hence the marginal effect of δ_i rises with $p_i'^0$ whenever the bracketed term is positive; in particular whenever $\Lambda(u_i^+) \le \frac{1}{2}$.

(3) Limits. Since Λ is continuous and strictly increasing with $\Lambda(\pm\infty) \in \{0, 1\}$,

$$\lim_{p_i'^0 \to 0} \Delta\pi_i = \Lambda(u_i) - \Lambda(u_i) = 0, \qquad \lim_{\delta_i \to 0} \Delta\pi_i = \Lambda(u_i) - \Lambda(u_i) = 0.$$

□

Proof of Theorem 2 (Bounded effectiveness of information). Write $u_i^0 = \Delta_i^0 p_i'^0 + I - c$ and $u_i^+(\delta) = u_i^0 + p_i'^0\delta$. Then $\Delta\pi_i(\delta) = \Lambda(u_i^+(\delta)) - \Lambda(u_i^0)$ and

$$\Delta\pi_i(\delta) = \int_0^\delta \Lambda'(u_i^+(s))\, p_i'^0\, ds$$

by calculus.

(i) Monotonicity follows since $\partial\Delta\pi_i/\partial\delta = \Lambda'(u_i^+(\delta))\, p_i'^0 > 0$ for $p_i'^0 > 0$ and $\Lambda'(x) = \Lambda(x)(1 - \Lambda(x)) > 0$.

(ii) Differentiating again,

$$\frac{\partial^2\Delta\pi_i}{\partial\delta^2} = \Lambda''(u_i^+(\delta))\,(p_i'^0)^2 = \Lambda'(u_i^+(\delta))\big(1 - 2\Lambda(u_i^+(\delta))\big)\,(p_i'^0)^2.$$

Since Λ is strictly increasing and crosses $1/2$ at zero, the sign of the second derivative is positive when $u_i^+(\delta) < 0$ and negative when $u_i^+(\delta) > 0$. Hence the unique inflection occurs at $u_i^+(\delta) = 0$, i.e. $\delta_i^* = -u_i^0/p_i'^0$, implying an increasing marginal effect for $\delta < \delta^*$ and a decreasing marginal effect for $\delta > \delta^*$.

(iii) Because $\Lambda(u) \in (0, 1)$ and $\Lambda(u_i^+(\delta)) \uparrow 1$ as $\delta \to \infty$, $\lim_{\delta\to\infty} \Delta\pi_i(\delta) = 1 - \Lambda(u_i^0)$. For the inequality, we use $\Lambda'(x) \le \sup_{x\in\mathbb{R}} \Lambda'(x) = \Lambda'(0) = 1/4$ and the integral representation:

$$\Delta\pi_i(\delta) = \int_0^\delta \Lambda'(u_i^+(s))\, p_i'^0\, ds \le \frac{1}{4}\, p_i'^0\delta.$$

Combining with $\Delta\pi_i(\delta) \le 1 - \Lambda(u_i^0)$ gives the stated bound. □

Proof of Theorem 3. Let $u_i^0 = \Delta_i^0 p_i'^0 + I - c$ and $\pi_i^0 = \Lambda(u_i^0)$. With efficacy held fixed, $\pi_i^1 = \Lambda(u_i^0 + p_i'^0\delta_i)$ and the gain is $\Delta\pi_i = \pi_i^1 - \pi_i^0$.

We set $\pi_i^1 = \pi_i^0 + \varepsilon$ and use strict monotonicity of Λ:

$$u_i^0 + p_i'^0\delta_i^* = \Lambda^{-1}(\pi_i^0 + \varepsilon) \quad \Rightarrow \quad \delta_i^*(\varepsilon) = \frac{\Lambda^{-1}(\pi_i^0 + \varepsilon) - u_i^0}{p_i'^0}.$$

This is finite for $p_i'^0 > 0$ and minimal by monotonicity.

Differentiating the closed form (treating u_i^0 as given):

$$\frac{\partial\delta_i^*}{\partial p_i'^0} = -\frac{\Lambda^{-1}(\pi_i^0 + \varepsilon) - u_i^0}{(p_i'^0)^2} < 0, \qquad \frac{\partial\delta_i^*}{\partial u_i^0} = -\frac{1}{p_i'^0} < 0,$$

since $\Lambda^{-1}(\pi_i^0 + \varepsilon) > u_i^0$ when $\varepsilon > 0$.

By first-order Taylor expansion of Λ at u_i^0,

$$\Lambda(u_i^0 + p_i'^0\delta) \approx \Lambda(u_i^0) + \Lambda'(u_i^0)p_i'^0\delta,$$

so solving $\Lambda(u_i^0) + \Lambda'(u_i^0)p_i'^0\delta \approx \pi_i^0 + \varepsilon$ yields $\delta_i^*(\varepsilon) \approx \varepsilon/(\Lambda'(u_i^0)p_i'^0)$.

From the integral representation $\Delta\pi_i = \int_0^{\delta_i} \Lambda'(u_i^0 + p_i'^0 s)\, p_i'^0\, ds$ and $\sup_x \Lambda'(x) = \Lambda'(0) = 1/4$, we have $\Delta\pi_i \leq \frac{1}{4}\, p_i'^0 \delta_i$. Combining with saturation $\Delta\pi_i \leq 1 - \pi_i^0$ gives the stated bound for any $\delta_i \leq \bar{\delta}$

□

A Online Petitions

B Petition: English translations

Petition for Improving Student-Teacher Ratio in Schools of Ranchi

To,
The District Magistrate
Ranchi, Jharkhand

Subject: Petition for Improving Student-Teacher Ratio in Schools of Ranchi

Dear Sir,
We, the undersigned residents of various villages in Ranchi, express our concern and advocate for urgent attention to the prevailing issue of inadequate student-teacher ratio in the schools of our district. As stakeholders in the well-being and future of our children, we believe that quality education is paramount for their holistic development, and an optimal student-teacher ratio plays a crucial role in achieving this goal.
As per the Champions of Change Dashboard in the Aspirational Districts Program, the current student-teacher ratio in many of our schools is far from ideal, with an overwhelming number of students for each teacher. This imbalance negatively impacts the quality of education and the individual attention that our children receive, hindering their academic progress and overall growth.
We are deeply committed to the prosperity and welfare of our community, and we believe that addressing this issue will contribute significantly to the development of our youth.
We, the undersigned, hereby request the District Administration to take immediate and effective measures to improve the student-teacher ratio in schools across Ranchi. We propose the following actions:

- **Recruitment of Additional Teachers**: Expedite the hiring process to ensure an adequate number of qualified and competent teachers are available to cater to the current student population.
- **Infrastructure Development**: Allocate resources for the construction of additional classrooms and facilities to accommodate the increasing number of students and teachers.
- **Training and Development**: Provide regular training and professional development opportunities for teachers to enhance their skills and effectiveness in the classroom.
- **Transparent Communication**: Keep the community informed about the steps taken to improve the student-teacher ratio through regular updates and open communication channels.
- **Community Involvement**: Encourage active involvement of parents and community members in supporting educational initiatives and addressing challenges related to student-teacher ratios.

We believe that by addressing this issue promptly, we can create an environment conducive to quality education and overall development for the children of Ranchi. We request your prompt attention to this matter and look forward to witnessing positive changes that will contribute to the educational upliftment of our community.

Thank you for your time and consideration.

Sincerely,

Petition for Improving Nutrition in Children Under the Age of 5 in Ranchi

To,
The District Magistrate
Ranchi, Jharkhand

Subject: Petition for Improving Nutrition in Children Under the Age of 5 in Ranchi

Dear Sir,
We, the concerned citizens and parents residing in various villages of Ranchi, bring to your attention the pressing issue of inadequate nutrition affecting children under the age of 6 in our district. We firmly believe that ensuring proper nutrition for these young minds is paramount for their physical and cognitive development, and it is our collective responsibility to address this matter urgently.
It has come to our notice that a significant number of children in our community are facing challenges related to malnutrition, resulting in stunted growth and underweight conditions. Recognizing the critical role that proper nutrition plays in the formative years of a child, we seek your support in implementing measures to improve the nutritional status of children under the age of 6. We, the undersigned, hereby request the District Administration to take immediate and effective measures to enhance nutrition for young children in Ranchi. We propose the following actions:

- **Nutrition Programs**: Introduce and expand nutrition programs targeting children under the age of 6, ensuring access to balanced and nutritious meals.
- **Awareness Campaigns**: Launch community-wide awareness campaigns to educate parents and caregivers about the importance of proper nutrition, including the significance of age-appropriate weight and height.
- **Health Check-ups**: Establish regular health check-ups and monitoring systems in collaboration with local health centers to identify and address nutritional deficiencies in a timely manner.
- **Community Engagement**: Encourage community participation by involving local leaders, parents, and caregivers in nutrition-related initiatives to create a sense of collective responsibility.
- **Collaboration with NGOs**: Partner with non-governmental organizations specializing in nutrition to leverage their expertise and resources for effective implementation of nutrition improvement programs.

We believe that by addressing this issue, we can collectively contribute to the well-being and future of our children, ensuring they have the right weight and height for their age. We urge you to consider this petition as a representation of our shared concern for the health and development of the youngest members of our community.

Thank you for your attention to this matter. We look forward to positive steps being taken for the benefit of our children.

Sincerely,

Petition for Improving Access to All-Weather Roads for All Habitations in Ranchi

To,
The District Magistrate
Ranchi, Jharkhand

Subject: Petition for Improving Access to All-Weather Roads for All Habitations in Ranchi

Dear Sir,
We, the undersigned residents of various villages in Ranchi, express our collective concern regarding the inadequate access to all-weather roads for habitations in our district. Recognizing the fundamental role that proper road infrastructure plays in the socio-economic development of our communities, we appeal to the District Administration to take immediate and decisive actions to improve road connectivity across all habitations in Ranchi.
The current state of road infrastructure in many of our villages is far from satisfactory, causing numerous hardships for the residents, especially during adverse weather conditions. The lack of all-weather roads affects our ability to access essential services, hindering economic activities and isolating many habitations from the mainstream development.
We, the undersigned, hereby request the District Administration to prioritize and implement measures for the improvement of road infrastructure in Ranchi. We propose the following actions:

- **Road Construction and Maintenance**: Initiate and expedite road construction projects that ensure all-weather accessibility to habitations, addressing the specific needs of rural areas.
- **Regular Maintenance Programs**: Implement regular maintenance programs to repair and upkeep existing roads, preventing deterioration and ensuring long-term usability.
- **Bridge Construction**: Prioritize the construction of bridges where needed, especially in areas prone to flooding, to ensure year-round connectivity.
- **Community Consultation**: Involve local communities in the planning and decision-making process to understand their specific needs and challenges related to road accessibility.
- **Timely Completion of Projects**: Ensure that road construction and improvement projects are completed within stipulated timelines to avoid prolonged inconvenience to residents.

Improving road infrastructure will not only enhance the quality of life for residents but also stimulate economic growth by facilitating the movement of goods and services. We believe that addressing this issue is crucial for the overall development of our district.
We, therefore, urge the District Administration to take immediate steps in improving access to all-weather roads for all habitations in Ranchi, considering it as a vital aspect of our collective progress.
Thank you for your attention and commitment to the well-being of our communities. We look forward to witnessing positive changes in our road infrastructure soon.
Sincerely,

Supplementary Results Appendix | For Online Publication

D.1 Results on complementary outcomes

Table D.1: Government performance in public service delivery

	Government not successful in ensuring:			Success in	Overall
	Health	Education	Infrastructure	any dimension	Factor
	(1)	(2)	(3)	(4)	(5)
Panel A: Just after					
Treat	0.039**	0.006	-0.016	-0.006	0.027
	(0.019)	(0.020)	(0.020)	(0.017)	(0.037)
N	2106	2106	2106	2106	2106
Control mean	0.465	0.520	0.540	0.652	-0.000
MHT pval	0.043	0.935	0.485	0.992	
Panel B: +1 month					
Treat	-0.029*	-0.014	-0.042***	-0.037***	-0.070*
	(0.016)	(0.020)	(0.016)	(0.013)	(0.040)
N	1936	1936	1936	1936	1936
Control mean	0.730	0.735	0.821	0.837	0.000
MHT pval	0.020	0.363	0.001	0.004	

Notes: This table presents treatment effects on respondents' beliefs about government success in providing quality public service delivery, elicited immediately after viewing the informational video. Columns 1–3 report the share of respondents who stated that the government has been "unsuccessful" or "very unsuccessful" in: (i) ensuring that children receive adequate nutrition for their age and development (Health); (ii) maintaining reasonable student–teacher ratios in public elementary schools (Education); and (iii) providing all habitations with access to a usable road (Infrastructure). Column 4 reports the share of respondents who judged the government to be unsuccessful in at least one of these three domains. Column 5 presents a composite belief index constructed as a latent trait using factor analysis of the indicators in Columns 1–3. All regressions follow the specification in Section 4. Covariates are selected using double LASSO. Standard errors are clustered at the village level. $p < 0.10$, $p<0.05$, $p<0.01$

Table D.2: Awareness about Aspirational Districts Program after 1 month

	Accelerate development of poorest districts	Sectors of ADP	Encourages active participation from communities	Launched in 2018	Statistics published on dashboard
	(1)	(2)	(3)	(4)	(5)
Treat	0.162***	0.166***	0.136***	0.067***	0.027***
	(0.037)	(0.037)	(0.032)	(0.017)	(0.010)
N	1936	1936	1936	1936	1936
Control mean	0.382	0.342	0.211	0.194	0.036
MHT pval	0.001	0.001	0.001	0.001	0.001

Notes: This table reports treatment effects on respondents' awareness about components of the Aspirational Districts Program one month after watching the video. All regressions follow the specification in Section 4, where T denotes assignment to the information treatment. Covariates are selected via double LASSO. Standard errors are clustered at the village level. $p < 0.10$, $p<0.05$, $p<0.01$.

Table D.3: Perceived benefits to participation with the government

	Better public services (1)	Improved governance (2)	Community well-being (3)	Trust in govt (4)	Voice in decisions (5)	No benefits (6)
Panel A: Just after						
Treat	0.017	-0.020	0.052***	0.008	0.007	-0.008
	(0.019)	(0.015)	(0.019)	(0.015)	(0.016)	(0.007)
N	2104	2104	2104	2104	2104	2104
Control mean	0.605	0.540	0.487	0.370	0.295	0.040
MHT pval	0.729	0.538	0.012	0.729	0.729	0.400
Panel B: +1 month						
Treat	-0.001	-0.003	0.041**	-0.016	-0.025	-0.017*
	(0.016)	(0.019)	(0.016)	(0.021)	(0.016)	(0.010)
N	1936	1936	1936	1936	1936	1936
Control mean	0.757	0.683	0.557	0.412	0.361	0.052
MHT pval	0.993	0.993	0.068	0.889	0.195	0.063

Notes: This table presents treatment effects on respondents' satisfaction with key public services in their district, measured immediately after viewing the informational video. Respondents were asked: "How satisfied are you with the use of the following public services in your district?" Column 1 captures satisfaction with healthcare and nutrition services for children. Column 2 reflects satisfaction with the number of teachers per classroom. Column 3 reports satisfaction with roads in the community. Column 4 presents an overall Satisfaction Index, constructed as a latent trait using factor analysis of responses in Columns 1–3. Regressions follow the specification described in Section 4, with T indicating assignment to the information treatment. Covariates are selected using double LASSO. Standard errors are clustered at the village level. $p < 0.10$, $p<0.05$, $p<0.01$

Table D.4: Perceived costs to participation with the government

	Time & effort (1)	Risk of backlash (2)	Social stigma (3)	Lack of community support (4)	Financial costs (5)
Panel A: Just after					
Treat	0.024	-0.025	0.010	0.017	-0.006
	(0.017)	(0.017)	(0.016)	(0.015)	(0.015)
N	2104	2104	2104	2104	2104
Control mean	0.487	0.530	0.253	0.378	0.140
MHT pval	0.118	0.361	0.481	0.481	0.451
Panel B: +1 month					
Treat	-0.014	-0.001	-0.018	0.007	-0.000
	(0.016)	(0.016)	(0.015)	(0.018)	(0.014)
N	1936	1936	1936	1936	1936
Control mean	0.699	0.649	0.369	0.460	0.215
MHT pval	0.392	0.985	0.371	0.890	0.890

Notes: This table presents treatment effects on respondents' satisfaction with key public services in their district, measured immediately after viewing the informational video. Respondents were asked: "How satisfied are you with the use of the following public services in your district?" Column 1 captures satisfaction with healthcare and nutrition services for children. Column 2 reflects satisfaction with the number of teachers per classroom. Column 3 reports satisfaction with roads in the community. Column 4 presents an overall Satisfaction Index, constructed as a latent trait using factor analysis of responses in Columns 1–3. Regressions follow the specification described in Section 4, with T indicating assignment to the information treatment. Covariates are selected using double LASSO. Standard errors are clustered at the village level. $p < 0.10$, $p<0.05$, $p<0.01$

Table D.5: Voting preferences and reasons to vote

			Reasons to vote						
	Interested in politics (1)	Will vote for BJP 2024 (2)	Political Party (3)	Candidate's caste (4)	Candidate's religion (5)	Candidate's gender (6)	Gifts (e.g. cash) (7)	District's development (8)	Candidate's promises (9)
Treat	0.024	-0.006	0.015	0.015	0.005	0.001	0.012	-0.027	0.014
	(0.018)	(0.016)	(0.017)	(0.018)	(0.015)	(0.010)	(0.010)	(0.019)	(0.012)
N	1936	1936	1515	1515	1515	1515	1515	1515	1515
Control mean	0.577	0.714	0.352	0.209	0.124	0.074	0.063	0.263	0.181
MHT pval	0.530	0.911	0.911	0.530	0.911	0.911	0.905	0.175	0.758

Notes: This table presents treatment effects on respondents' satisfaction with key public services in their district, measured immediately after viewing the informational video. Respondents were asked: "How satisfied are you with the use of the following public services in your district?" Column 1 captures satisfaction with healthcare and nutrition services for children. Column 2 reflects satisfaction with the number of teachers per classroom. Column 3 reports satisfaction with roads in the community. Column 4 presents an overall Satisfaction Index, constructed as a latent trait using factor analysis of responses in Columns 1–3. Regressions follow the specification described in Section 4, with T indicating assignment to the information treatment. Covariates are selected using double LASSO. Standard errors are clustered at the village level. $p < 0.10$, $p<0.05$, $p<0.01$

Table D.6: Willingness to Participate in individual-level activities

	Plans to File RTI	Use complaint portals	Donate to citizen events	Opinion on Social media	Overall Factor
	(1)	(2)	(3)	(4)	(5)
Panel A: Just after					
Treat	0.139***	0.162***	0.110***	0.206***	0.136***
	(0.048)	(0.043)	(0.038)	(0.047)	(0.033)
N	2106	2106	2106	2106	2106
Control mean	2.452	2.732	2.446	2.192	0.000
MHT pval	0.003	0.001	0.003	0.001	
Panel B: +1 month					
Treat	0.091**	0.075**	0.088**	0.110***	0.076***
	(0.038)	(0.035)	(0.035)	(0.042)	(0.028)
N	1936	1936	1936	1936	1936
Control mean	2.439	2.665	2.540	2.335	0.000
MHT pval	0.100	0.100	0.020	0.004	

Notes: This table reports treatment effects on respondents' willingness to participate in civic participation activities that can be undertaken independently at the individual level, measured one month after viewing the informational video. Column 1 presents the share of respondents who are willing to filing or planning to file a Right to Information (RTI) request. Column 2 reports the share who reported to be willing to use formal government complaint channels, such as the Centralized Public Grievance Redressal System (CPGRAMS), Mann ki Baat application, or Gram Sabha complaint boxes. Column 3 captures the share who are willing to contribute financially to citizen-organized events or protests aimed at improving public service delivery. Column 4 shows the percentage who are willing to use social media to express views on politics or government performance. Column 5 presents a composite index of participation, constructed as a latent trait using factor analysis from the indicators in Columns 1–4. All regressions follow the specification in Section 4, where T denotes assignment to the information treatment. Covariates are selected using double LASSO. Standard errors are clustered at the village level. $p < 0.10$, $p<0.05$, $p<0.01$.

Table D.7: Willingness to Participate in collective-level activities

Factor	Meet Civic Officials / Attend Village meetings	Met with Village meetings	Talked to public groups	Initiatives by citizen groups	Overall civil society
	(1)	(2)	(3)	(4)	(5)
Panel A: Just after					
Treat	0.052	0.180***	0.102**	0.074*	0.090***
	(0.038)	(0.044)	(0.044)	(0.043)	(0.030)
N	2106	2106	2106	2106	2106
Control mean	2.912	2.838	2.681	2.581	0.000
MHT pval	0.040	0.001	0.002	0.040	
Panel B: +1 month					
Treat	0.066*	0.087**	0.071**	0.021	0.056*
	(0.037)	(0.035)	(0.034)	(0.038)	(0.030)
N	1936	1936	1936	1936	1936
Control mean	2.805	2.845	2.719	2.684	-0.000
MHT pval	0.189	0.055	0.113	0.942	

Notes: This table reports treatment effects on respondents' stated willingness to engage in civic activities involving public officials, civil society organizations, or collective efforts, elicited one month after viewing the informational video. Column 1 shows the share of respondents who said they were willing to meet with a civic official (e.g., Block Development Officer, Gram Panchayat Secretary, Village Development Officer or Panchayat Development Officer, Revenue Officials such as Patwari/Lekhpal, or officials from the District Magistrate's office). Column 2 reports willingness to attend local government meetings such as the Gram Sabha. Column 3 captures willingness to meet with frontline service providers or village leaders (e.g., anganwadi workers, school heads, or local representatives) to discuss service delivery issues. Column 4 reflects willingness to join group discussions about government performance. Column 5 shows willingness to participate in initiatives organized by civil society. Column 6 presents a composite index of willingness, constructed via factor analysis of responses in Columns 1–4. All regressions follow the specification described in Section 4, with T indicating assignment to the information treatment. Covariates are selected using double LASSO. Standard errors are clustered at the village level. p < 0.10, p<0.05, p<0.01

Table D.8: Measures government has adopted to improve accountability in public service delivery

	Grievance redressal mechanisms	Improved transparency	Citizen Participation in policy	Enhancing Monitoring & Evaluation	Avenues for citizen feedback	Strict corruption penalties
	(1)	(2)	(3)	(4)	(5)	(6)
Treat	0.022	0.005	-0.001	-0.008	-0.054***	0.002
	(0.016)	(0.017)	(0.018)	(0.020)	(0.016)	(0.015)
N	1936	1936	1936	1936	1936	1936
Control mean	0.790	0.716	0.648	0.528	0.437	0.274
MHT pval	0.676	0.676	0.985	0.819	0.001	0.985

Notes: This table presents treatment effects on respondents' beliefs about government efforts to improve accountability in public service delivery. Column 1 reports the share who stated that the government has strengthened grievance redressal mechanisms. Column 2 reflects reported improvements in transparency of information. Column 3 captures perceptions that the government has promoted citizen participation in policymaking. Column 4 shows the share who noted enhancements in monitoring and evaluation mechanisms. Column 5 reports the share who cited increased avenues for citizen feedback and engagement. Column 6 shows the share who believed the government has imposed stricter penalties for corruption and inefficiency. All regressions follow the specification in Section 4, with T denoting assignment to the information treatment. Covariates are selected via double LASSO. Standard errors are clustered at the village level. p < 0.10, p<0.05, p<0.01

Table D.9: Measures government should adopt to improve accountability in public service delivery

	Grievance redressal mechanisms	Improved transparency	Citizen Participation in policy	Enhancing Monitoring & Evaluation	Avenues for citizen feedback	Strict corruption penalties
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Just after						
Treat	-0.003	0.014	0.010	0.004	0.004	0.025*
	(0.015)	(0.017)	(0.018)	(0.021)	(0.014)	(0.015)
N	2106	2106	2106	2106	2106	2106
Control mean	0.731	0.522	0.458	0.414	0.289	0.352
MHT pval	0.717	0.315	0.717	0.989	0.913	0.089
Panel B: +1 month						
Treat	-0.015	-0.004	0.019	0.000	-0.023	-0.007
	(0.015)	(0.016)	(0.020)	(0.019)	(0.019)	(0.013)
N	1936	1936	1936	1936	1936	1936
Control mean	0.822	0.710	0.619	0.499	0.369	0.223
MHT pval	0.485	0.955	0.686	0.955	0.306	0.955

Notes: This table presents treatment effects on respondents' beliefs about what actions the government should take to improve accountability in public service delivery. Column 1 reports the share who stated that the government should strengthen grievance redressal mechanisms. Column 2 reflects the share supporting greater transparency of information. Column 3 captures the belief that the government should promote citizen participation in policymaking. Column 4 shows the share who endorsed enhanced monitoring and evaluation systems. Column 5 reports support for expanding avenues for citizen feedback and engagement. Column 6 reflects the belief that the government should impose stricter penalties for corruption and inefficiency. Regressions follow the specification described in Section 4, with T indicating assignment to the information treatment. Covariates are selected using double LASSO. Standard errors are clustered at the village level. p < 0.10, p<0.05, p<0.01

Table D.10: Social networks of the respondents

		Number of people engaged with in the past week to talk about:				
	Chat/discuss general matters	Politics	State of malnutrition	Infrastructure conditions	Education quality	Ask for help
	(1)	(2)	(3)	(4)	(5)	(6)
Treat	-12.487	-0.036	0.190	0.077	0.163	-0.011
	(8.424)	(0.097)	(0.156)	(0.131)	(0.213)	(0.181)
N	1936	1936	1936	1936	1936	1936
Control mean	26.860	3.267	3.534	4.586	4.397	5.376
MHT pval	0.332	0.934	0.390	0.934	0.900	0.934

Notes: This table presents treatment effects on respondents' social networks. Column 1 reports the number of individuals the respondent typically interacts with on a weekday through any form of communication (in person, by phone, or mail). Columns 2–5 report the number of people the respondent discussed the following topics with in the past seven days: (i) politics, including elections, government policies, or political events; (ii) child malnutrition in the district; (iii) infrastructure conditions, such as roads, toilets, electricity, and surroundings; and (iv) education quality for children. Column 6 reports the number of people the respondent feels they could approach for help when facing a serious personal problem. Regressions follow the specification described in Section 4, with T indicating assignment to the information treatment. Covariates are selected using double LASSO. Standard errors are clustered at the village level. p < 0.10, p<0.05, p<0.01

Table D.11: Aspirations for children

	Wants children to:			Actual work:		
	Highest edu: Postgrad	Skilled profession	Farm work	Skilled work	Farm work	Plans to migrate
	(1)	(2)	(3)	(4)	(5)	(6)
Treat	-0.015	0.006	0.009	0.002	-0.010	-0.018
	(0.016)	(0.011)	(0.013)	(0.009)	(0.013)	(0.015)
N	1936	1936	1936	1936	1936	1936
Control mean	0.243	0.944	0.126	0.963	0.148	0.529
MHT pval	0.325	0.917	0.815	0.917	0.690	0.191

Notes: This table presents treatment effects on respondents' aspirations and expectations for their children's future. Column 1 reports the share who aspire for their children to attain a postgraduate degree. Columns 2–3 report the share aspiring for skilled and farm work, respectively. Columns 4–5 report beliefs about the type of work children will actually do. Column 6 reports the share planning to migrate. All regressions follow the specification in Section 4, with T indicating assignment to the information treatment. Covariates are selected via double LASSO. Standard errors are clustered at the village level. $p < 0.10$, $p<0.05$, $p<0.01$

Table D.12: Tax Support and 1 k Lottery Forfeit for Civic Action

	1k Lottery over information on:		Agree for a 0.1% ↑ in:	
	Ranchi's progress on other ADP indicators	Steps that citizens could follow	Income tax	Goods and service tax tax
	(1)	(2)	(3)	(4)
Panel A: Just after				
Treat	0.024	0.027	0.039***	0.039**
	(0.020)	(0.020)	(0.014)	(0.017)
N	2106	2106	2106	2106
Control mean	0.671	0.675	0.671	0.674
MHT pval	0.084	0.065	0.004	0.009
Panel B: +1 month				
Treat	-0.001	0.005	0.016	0.001
	(0.021)	(0.021)	(0.011)	(0.011)
N	1936	1936	1936	1936
Control mean	0.490	0.454	0.804	0.833
MHT pval	0.993	0.987	0.189	0.993

Notes: This table presents treatment effects on respondents' willingness to support government initiatives through tax contributions and their preferences between monetary incentives and information. Columns 1 and 2 report the share of respondents who opted to participate in a 1,000 lottery rather than receive: (i) an exclusive, accessible summary of Ranchi's performance under the Aspirational Districts Program; and (ii) exclusive information on how citizens can demand better public service delivery. Columns 3 and 4 show the share of respondents who agreed to a hypothetical 0.1% increase in their annual income tax and in indirect taxes (GST/VAT), respectively. Regressions follow the specification described in Section 4, with T indicating assignment to the information treatment. Covariates are selected using double LASSO. Standard errors are clustered at the village level. $p < 0.10$, $p<0.05$, $p<0.01$

Table D.13: Beliefs about social ability to participate with the government

	Officials free of corruption (1)	People can participate in protests (2)	Preferences not accounted for services (3)	Can voice concerns without fear (4)	Should accept poor services (5)	Community supports pol. participation (6)	Community encourages civic participation (7)	Participation is a civic duty (8)
Treat	-0.014	0.003	-0.016	0.012	0.007	0.020*	-0.005	0.002
	(0.017)	(0.016)	(0.018)	(0.018)	(0.017)	(0.011)	(0.007)	(0.008)
N	1936	1936	1936	1936	1936	1936	1936	1936
Control mean	0.524	0.768	0.837	0.813	0.780	0.871	0.972	0.961
MHT pval	0.465	1.000	0.786	0.994	1.000	0.071	0.961	0.995

Notes: This table presents treatment effects on respondents' perceptions of civic participation and governance. Columns 1–4 report the share agreeing with the following statements: (i) public officials are free of corruption; (ii) people have the freedom to organize and protest; (iii) public preferences are not considered in service delivery decisions; (iv) citizens can voice their concerns without fear. Columns 5–8 report agreement with statements on civic norms and engagement: (i) community support or discouragement for political participation; (ii) community encourages attending public meetings to demand accountability and (iii) civic duty to participate in NGO or CSO-led initiatives for service delivery. All regressions follow the specification in Section 4, with T indicating assignment to the information treatment. Covariates are selected via double LASSO. Standard errors are clustered at the village level. p $<$ 0.10, p$<$0.05, p$<$0.01

D.2 Heterogeneity

D.3 Relative rank misperception: Other outcomes

Table D.14: Government performance in public service delivery

	Government not successful in ensuring:			Success in	Overall
	Health	Education	Infrastructure	any dimension	Factor
	(1)	(2)	(3)	(4)	(5)
Panel A: Just after					
Treat X OverEst	0.146***	0.100**	0.146***	0.082*	0.244**
	(0.051)	(0.046)	(0.039)	(0.047)	(0.104)
Treat X NotOverEst	0.010	0.047	0.050	-0.033	-0.038
	(0.061)	(0.055)	(0.050)	(0.052)	(0.127)
OverEst	-0.086**	0.005	-0.010	-0.057**	-0.101
	(0.034)	(0.031)	(0.028)	(0.023)	(0.069)
Obs	2107	2107	2107	2107	2107
Ctrl mean: NotOverEst	0.813	0.770	0.751	0.926	0.031
Ctrl mean: OverEst	0.748	0.780	0.752	0.847	-0.010
p: OverEst = NotOverEst	0.001	0.239	0.014	0.000	0.001
Panel B: +1 month					
Treat X OverEst	-0.020	0.063	0.093**	-0.032	0.072
	(0.046)	(0.040)	(0.047)	(0.062)	(0.119)
Treat X NotOverEst	-0.013	0.011	0.064	-0.057	-0.001
	(0.054)	(0.047)	(0.056)	(0.059)	(0.128)
OverEst	0.006	-0.040	-0.010	-0.052**	-0.059
	(0.028)	(0.027)	(0.032)	(0.025)	(0.061)
Obs	1936	1936	1936	1936	1936
Ctrl mean: NotOverEst	0.708	0.667	0.650	0.778	-0.201
Ctrl mean: OverEst	0.802	0.759	0.763	0.788	0.067
p: OverEst = NotOverEst	0.832	0.129	0.458	0.434	0.305

Notes: This table presents treatment effects on respondents' beliefs about government success in providing quality public service delivery, elicited immediately after viewing the informational video. Columns 1–3 report the share of respondents who stated that the government has been "successful" or "very successful" in: (i) ensuring that children receive adequate nutrition for their age and development (Health); (ii) maintaining reasonable student–teacher ratios in public elementary schools (Education); and (iii) providing all habitations with access to a usable road (Infrastructure). Column 4 reports the share of respondents who judged the government to be successful in at least one of these three domains. Column 5 presents a composite belief index constructed as a latent trait using factor analysis of the indicators in Columns 1–3. All regressions follow the specification in Section 4. Covariates are selected using double LASSO. Standard errors are clustered at the village level. $p < 0.10$, $p<0.05$, $p<0.01$

Table D.15: Awareness about Aspirational Districts Program after 1 month

	Accelerate development of poorest districts (1)	Sectors of ADP (2)	Encourages active participation from communities (3)	Launched in 2018 (4)	Statistics published on dashboard (5)
Treat X OverEst	0.139***	0.154***	0.130***	0.065***	0.026**
	(0.036)	(0.035)	(0.031)	(0.020)	(0.012)
Treat X NotOverEst	0.229***	0.200***	0.152***	0.073**	0.031*
	(0.058)	(0.056)	(0.048)	(0.031)	(0.016)
OverEst	0.043	0.060*	0.024	0.008	-0.015
	(0.036)	(0.036)	(0.033)	(0.027)	(0.018)
Obs	1936	1936	1936	1936	1936
Ctrl mean: NotOverEst	0.333	0.284	0.210	0.181	0.045
Ctrl mean: OverEst	0.398	0.361	0.212	0.198	0.033
p: OverEst = NotOverEst	0.064	0.290	0.594	0.841	0.804

Notes: This table reports treatment effects on respondents' awareness about components of the Aspirational Districts Program one month after watching the video. All regressions follow the specification in Section 4, where T denotes assignment to the information treatment. Covariates are selected via double LASSO. Standard errors are clustered at the village level. $p < 0.10$, $p<0.05$, $p<0.01$.

Table D.16: Perceived benefits to participation with the government

	Better public services (1)	Improved governance (2)	Community well-being (3)	Trust in govt (4)	Voice in decisions (5)	No benefits (6)
Panel A: Just after						
Treat X OverEst	0.021	-0.009	0.061***	0.020	0.008	-0.008
	(0.022)	(0.019)	(0.021)	(0.018)	(0.018)	(0.009)
Treat X NotOverEst	0.005	-0.047	0.023	-0.026	0.001	-0.009
	(0.037)	(0.037)	(0.034)	(0.035)	(0.035)	(0.012)
OverEst	0.004	-0.034	-0.044	-0.049	-0.005	0.001
	(0.036)	(0.041)	(0.028)	(0.031)	(0.031)	(0.011)
Obs	2107	2107	2107	2107	2107	2107
Ctrl mean: NotOverEst	0.619	0.623	0.467	0.331	0.226	0.023
Ctrl mean: OverEst	0.599	0.512	0.492	0.381	0.316	0.045
p: OverEst = NotOverEst	0.702	0.405	0.308	0.266	0.867	0.945
Panel B: +1 month						
Treat X OverEst	-0.009	0.005	0.029	-0.019	-0.007	-0.021*
	(0.019)	(0.024)	(0.022)	(0.024)	(0.017)	(0.012)
Treat X NotOverEst	0.025	-0.027	0.073**	-0.012	-0.076**	-0.009
	(0.031)	(0.036)	(0.033)	(0.033)	(0.037)	(0.014)
OverEst	0.046	-0.064*	0.017	-0.037	-0.072**	0.022
	(0.028)	(0.038)	(0.038)	(0.036)	(0.030)	(0.016)
Obs	1936	1936	1936	1936	1936	1936
Ctrl mean: NotOverEst	0.757	0.741	0.580	0.424	0.412	0.033
Ctrl mean: OverEst	0.756	0.663	0.550	0.408	0.345	0.059
p: OverEst = NotOverEst	0.355	0.478	0.323	0.842	0.092	0.519

Notes: This table presents treatment effects on respondents' satisfaction with key public services in their district, measured immediately after viewing the informational video. Respondents were asked: "How satisfied are you with the use of the following public services in your district?" Column 1 captures satisfaction with healthcare and nutrition services for children. Column 2 reflects satisfaction with the number of teachers per classroom. Column 3 reports satisfaction with roads in the community. Column 4 presents an overall Satisfaction Index, constructed as a latent trait using factor analysis of responses in Columns 1–3. Regressions follow the specification described in Section 4, with T indicating assignment to the information treatment. Covariates are selected using double LASSO. Standard errors are clustered at the village level. $p < 0.10$, $p<0.05$, $p<0.01$

Table D.17: Perceived costs to participation with the government

	Time & effort (1)	Risk of backlash (2)	Social stigma (3)	Lack of community support (4)	Financial costs (5)
Panel A: Just after					
Treat X OverEst	-0.007	0.011	-0.010	0.021	-0.004
	(0.019)	(0.019)	(0.017)	(0.024)	(0.018)
Treat X NotOverEst	-0.029	-0.037	-0.039	-0.033	0.014
	(0.032)	(0.036)	(0.040)	(0.026)	(0.022)
OverEst	-0.003	-0.024	-0.023	-0.034	-0.008
	(0.039)	(0.028)	(0.033)	(0.031)	(0.028)
Obs	1936	1936	1936	1936	1936
Ctrl mean: NotOverEst	0.745	0.687	0.428	0.490	0.202
Ctrl mean: OverEst	0.684	0.636	0.349	0.450	0.219
p: OverEst = NotOverEst	0.590	0.254	0.537	0.155	0.509
Panel B: +1 month					
Treat X OverEst	-0.007	0.011	-0.010	0.021	-0.004
	(0.019)	(0.019)	(0.017)	(0.024)	(0.018)
Treat X NotOverEst	-0.029	-0.037	-0.039	-0.033	0.014
	(0.032)	(0.036)	(0.040)	(0.026)	(0.022)
OverEst	-0.003	-0.024	-0.023	-0.034	-0.008
	(0.039)	(0.028)	(0.033)	(0.031)	(0.028)
Obs	1936	1936	1936	1936	1936
Ctrl mean: NotOverEst	0.745	0.687	0.428	0.490	0.202
Ctrl mean: OverEst	0.684	0.636	0.349	0.450	0.219
p: OverEst = NotOverEst	0.590	0.254	0.537	0.155	0.509

Notes: This table presents treatment effects on respondents' satisfaction with key public services in their district, measured immediately after viewing the informational video. Respondents were asked: "How satisfied are you with the use of the following public services in your district?" Column 1 captures satisfaction with healthcare and nutrition services for children. Column 2 reflects satisfaction with the number of teachers per classroom. Column 3 reports satisfaction with roads in the community. Column 4 presents an overall Satisfaction Index, constructed as a latent trait using factor analysis of responses in Columns 1–3. Regressions follow the specification described in Section 4, with T indicating assignment to the information treatment. Covariates are selected using double LASSO. Standard errors are clustered at the village level. $p < 0.10$, $p<0.05$, $p<0.01$

Table D.18: Voting preferences and reasons to vote

		Reasons to vote						
	Will vote for BJP 2024	Political Party	Candidate's caste	Candidate's religion	Candidate's gender	Gifts (e.g. cash)	District's development	Candidate's promises
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Treat X OverEst	-0.025	0.025	0.015	0.011	0.008	0.017*	-0.032	0.009
	(0.018)	(0.021)	(0.015)	(0.018)	(0.012)	(0.010)	(0.023)	(0.015)
Treat X NotOverEst	0.049	-0.012	0.018	-0.015	-0.018	-0.003	-0.015	0.028
	(0.035)	(0.040)	(0.042)	(0.018)	(0.021)	(0.023)	(0.030)	(0.019)
OverEst	0.052*	-0.037	-0.002	0.006	-0.028	0.005	-0.038	0.020
	(0.030)	(0.041)	(0.033)	(0.016)	(0.018)	(0.017)	(0.035)	(0.023)
Obs	1936	1515	1515	1515	1515	1515	1515	1515
Ctrl mean: NotOverEst	0.704	0.449	0.297	0.114	0.086	0.070	0.286	0.097
Ctrl mean: OverEst	0.717	0.321	0.181	0.127	0.069	0.061	0.255	0.208
p: OverEst = NotOverEst	0.066	0.421	0.928	0.245	0.281	0.401	0.638	0.421

Notes: This table presents treatment effects on respondents' satisfaction with key public services in their district, measured immediately after viewing the informational video. Respondents were asked: "How satisfied are you with the use of the following public services in your district?" Column 1 captures satisfaction with healthcare and nutrition services for children. Column 2 reflects satisfaction with the number of teachers per classroom. Column 3 reports satisfaction with roads in the community. Column 4 presents an overall Satisfaction Index, constructed as a latent trait using factor analysis of responses in Columns 1–3. Regressions follow the specification described in Section 4, with T indicating assignment to the information treatment. Covariates are selected using double LASSO. Standard errors are clustered at the village level. $p < 0.10$, $p<0.05$, $p<0.01$

Table D.19: Willingness to Participate in individual-level activities

	Plans to File RTI	Use complaint portals	Donate to citizen events	Opinion on Social media	Overall Factor
	(1)	(2)	(3)	(4)	(5)
Panel A: Just after					
Treat X OverEst	0.116**	0.133**	0.118**	0.230***	0.135***
	(0.056)	(0.056)	(0.048)	(0.054)	(0.040)
Treat X NotOverEst	0.146*	0.168**	0.067	0.060	0.124**
	(0.088)	(0.068)	(0.066)	(0.085)	(0.055)
OverEst	0.054	0.142	0.102	0.091	0.082
	(0.073)	(0.095)	(0.084)	(0.090)	(0.070)
Obs	2107	2107	2107	2107	2107
Ctrl mean: NotOverEst	2.377	2.685	2.510	2.144	-0.020
Ctrl mean: OverEst	2.476	2.747	2.426	2.208	0.006
p: OverEst = NotOverEst	0.774	0.720	0.546	0.072	0.882
Panel B: +1 month					
Treat X OverEst	0.056	0.052	0.048	0.062	0.046
	(0.041)	(0.042)	(0.040)	(0.050)	(0.033)
Treat X NotOverEst	0.179***	0.132**	0.189**	0.236***	0.153***
	(0.067)	(0.064)	(0.075)	(0.088)	(0.055)
OverEst	0.061	0.050	0.050	0.062	0.042
	(0.073)	(0.083)	(0.068)	(0.089)	(0.057)
Obs	1936	1936	1936	1936	1936
Ctrl mean: NotOverEst	2.379	2.658	2.494	2.243	-0.042
Ctrl mean: OverEst	2.460	2.668	2.555	2.365	0.014
p: OverEst = NotOverEst	0.086	0.304	0.101	0.089	0.091

Notes: This table reports treatment effects on respondents' willingness to participate in civic participation activities that can be undertaken independently at the individual level, measured one month after viewing the informational video. Column 1 presents the share of respondents who are willing to filing or planning to file a Right to Information (RTI) request. Column 2 reports the share who reported to be willing to use formal government complaint channels, such as the Centralized Public Grievance Redressal System (CPGRAMS), Mann ki Baat application, or Gram Sabha complaint boxes. Column 3 captures the share who are willing to contribute financially to citizen-organized events or protests aimed at improving public service delivery. Column 4 shows the percentage who are willing to use social media to express views on politics or government performance. Column 5 presents a composite index of participation, constructed as a latent trait using factor analysis from the indicators in Columns 1–4. All regressions follow the specification in Section 4, where T denotes assignment to the information treatment. Covariates are selected using double LASSO. Standard errors are clustered at the village level. $p < 0.10$, $p<0.05$, $p<0.01$.

Table D.20: Willingness to Participate in collective-level activities

Factor	Meet Civic Officials / Attend Village meetings	Met with Village meetings	Talked to public groups	Initiatives by citizen groups	Overall civil society
	(1)	(2)	(3)	(4)	(5)
Panel A: Just after					
Treat X OverEst	0.031	0.162***	0.078*	0.044	0.078**
	(0.046)	(0.052)	(0.046)	(0.049)	(0.036)
Treat X NotOverEst	0.048	0.212***	0.124	0.074	0.125**
	(0.065)	(0.075)	(0.098)	(0.081)	(0.061)
OverEst	0.033	0.082	0.093	0.149*	0.108*
	(0.068)	(0.071)	(0.093)	(0.078)	(0.063)
Obs	2107	2107	2107	2107	2107
Ctrl mean: NotOverEst	2.875	2.786	2.630	2.533	-0.046
Ctrl mean: OverEst	2.924	2.854	2.697	2.597	0.015
p: OverEst = NotOverEst	0.841	0.583	0.666	0.750	0.506
Panel B: +1 month					
Treat X OverEst	0.050	0.059	0.064*	0.005	0.041
	(0.043)	(0.043)	(0.036)	(0.040)	(0.032)
Treat X NotOverEst	0.107	0.166**	0.089	0.060	0.102
	(0.081)	(0.068)	(0.070)	(0.080)	(0.065)
OverEst	0.018	-0.019	-0.039	-0.039	-0.011
	(0.091)	(0.080)	(0.078)	(0.077)	(0.073)
Obs	1936	1936	1936	1936	1936
Ctrl mean: NotOverEst	2.786	2.864	2.741	2.704	0.011
Ctrl mean: OverEst	2.811	2.839	2.711	2.677	-0.004
p: OverEst = NotOverEst	0.545	0.212	0.739	0.525	0.395

Notes: This table reports treatment effects on respondents' stated willingness to engage in civic activities involving public officials, civil society organizations, or collective efforts, elicited one month after viewing the informational video. Column 1 shows the share of respondents who said they were willing to meet with a civic official (e.g., Block Development Officer, Gram Panchayat Secretary, Village Development Officer or Panchayat Development Officer, Revenue Officials such as Patwari/Lekhpal, or officials from the District Magistrate's office). Column 2 reports willingness to attend local government meetings such as the Gram Sabha. Column 3 captures willingness to meet with frontline service providers or village leaders (e.g., anganwadi workers, school heads, or local representatives) to discuss service delivery issues. Column 4 reflects willingness to join group discussions about government performance. Column 5 shows willingness to participate in initiatives organized by civil society. Column 6 presents a composite index of willingness, constructed via factor analysis of responses in Columns 1–4. All regressions follow the specification described in Section 4, with T indicating assignment to the information treatment. Covariates are selected using double LASSO. Standard errors are clustered at the village level. $p < 0.10$, $p<0.05$, $p<0.01$

Table D.21: Measures government has adopted to improve accountability in public service delivery

	Grievance redressal mechanisms	Improved transparency	Citizen Participation in policy	Enhancing Monitoring & Evaluation	Avenues for citizen feedback	Strict corruption penalties
	(1)	(2)	(3)	(4)	(5)	(6)
Treat X OverEst	0.018	0.016	-0.015	-0.004	-0.050**	0.013
	(0.018)	(0.020)	(0.020)	(0.023)	(0.020)	(0.017)
Treat X NotOverEst	0.038	-0.027	0.037	-0.023	-0.070**	-0.032
	(0.031)	(0.032)	(0.036)	(0.034)	(0.034)	(0.032)
OverEst	0.068**	-0.027	0.006	-0.032	-0.072**	-0.043*
	(0.033)	(0.031)	(0.033)	(0.034)	(0.036)	(0.026)
Obs	1936	1936	1936	1936	1936	1936
Ctrl mean: NotOverEst	0.757	0.733	0.667	0.506	0.461	0.280
Ctrl mean: OverEst	0.800	0.710	0.642	0.535	0.430	0.272
p: OverEst = NotOverEst	0.568	0.247	0.191	0.611	0.614	0.216

Notes: This table presents treatment effects on respondents' beliefs about government efforts to improve accountability in public service delivery. Column 1 reports the share who stated that the government has strengthened grievance redressal mechanisms. Column 2 reflects reported improvements in transparency of information. Column 3 captures perceptions that the government has promoted citizen participation in policymaking. Column 4 shows the share who noted enhancements in monitoring and evaluation mechanisms. Column 5 reports the share who cited increased avenues for citizen feedback and engagement. Column 6 shows the share who believed the government has imposed stricter penalties for corruption and inefficiency. All regressions follow the specification in Section 4, with T denoting assignment to the information treatment. Covariates are selected via double LASSO. Standard errors are clustered at the village level. $p < 0.10$, $p<0.05$, $p<0.01$

Table D.22: Measures government should adopt to improve accountability in public service delivery

	Grievance redressal mechanisms	Improved transparency	Citizen Participation in policy	Enhancing Monitoring & Evaluation	Avenues for citizen feedback	Strict corruption penalties
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Just after						
Treat X OverEst	-0.006	0.019	0.012	0.005	0.013	0.021
	(0.018)	(0.020)	(0.019)	(0.021)	(0.018)	(0.016)
Treat X NotOverEst	0.008	-0.000	0.005	-0.001	-0.019	0.038
	(0.027)	(0.032)	(0.034)	(0.042)	(0.029)	(0.032)
OverEst	0.070***	-0.044	0.002	-0.038	0.003	0.004
	(0.027)	(0.034)	(0.031)	(0.031)	(0.030)	(0.029)
Obs	2107	2107	2107	2107	2107	2107
Ctrl mean: NotOverEst	0.696	0.588	0.451	0.405	0.265	0.226
Ctrl mean: OverEst	0.742	0.501	0.461	0.417	0.296	0.392
p: OverEst = NotOverEst	0.666	0.602	0.859	0.891	0.394	0.627
Panel B: +1 month						
Treat X OverEst	-0.013	0.007	0.026	0.012	-0.016	-0.017
	(0.017)	(0.019)	(0.022)	(0.023)	(0.021)	(0.015)
Treat X NotOverEst	-0.020	-0.036	-0.001	-0.035	-0.044	0.020
	(0.029)	(0.035)	(0.035)	(0.031)	(0.031)	(0.026)
OverEst	0.072***	-0.037	-0.072**	-0.071**	-0.068**	0.004
	(0.027)	(0.035)	(0.034)	(0.034)	(0.033)	(0.023)
Obs	1936	1936	1936	1936	1936	1936
Ctrl mean: NotOverEst	0.794	0.741	0.679	0.514	0.395	0.202
Ctrl mean: OverEst	0.832	0.700	0.599	0.494	0.360	0.230
p: OverEst = NotOverEst	0.840	0.293	0.484	0.219	0.413	0.206

Notes: This table presents treatment effects on respondents' beliefs about what actions the government should take to improve accountability in public service delivery. Column 1 reports the share who stated that the government should strengthen grievance redressal mechanisms. Column 2 reflects the share supporting greater transparency of information. Column 3 captures the belief that the government should promote citizen participation in policymaking. Column 4 shows the share who endorsed enhanced monitoring and evaluation systems. Column 5 reports support for expanding avenues for citizen feedback and engagement. Column 6 reflects the belief that the government should impose stricter penalties for corruption and inefficiency. Regressions follow the specification described in Section 4, with T indicating assignment to the information treatment. Covariates are selected using double LASSO. Standard errors are clustered at the village level. $p < 0.10$, $p<0.05$, $p<0.01$

Table D.23: Social networks of the respondents

		Number of people engaged with in the past week to talk about:				
	Chat/discuss general matters	Politics	State of malnutrition	Infrastructure conditions	Education quality	Ask for help
	(1)	(2)	(3)	(4)	(5)	(6)
Treat X OverEst	-18.092	-0.023	0.063	-0.027	0.144	-0.165
	(11.761)	(0.118)	(0.221)	(0.154)	(0.289)	(0.208)
Treat X NotOverEst	2.555	-0.118	0.534**	0.336	0.222	0.439
	(7.022)	(0.266)	(0.253)	(0.314)	(0.294)	(0.274)
OverEst	30.003	-0.011	0.290	0.216	0.050	0.489
	(19.831)	(0.282)	(0.256)	(0.310)	(0.375)	(0.309)
Obs	1936	1936	1936	1936	1936	1936
Ctrl mean: NotOverEst	12.111	2.926	3.016	4.259	4.041	5.235
Ctrl mean: OverEst	31.763	3.380	3.706	4.695	4.516	5.423
p: OverEst = NotOverEst	0.144	0.760	0.221	0.319	0.864	0.054

Notes: This table presents treatment effects on respondents' social networks. Column 1 reports the number of individuals the respondent typically interacts with on a weekday through any form of communication (in person, by phone, or mail). Columns 2–5 report the number of people the respondent discussed the following topics with in the past seven days: (i) politics, including elections, government policies, or political events; (ii) child malnutrition in the district; (iii) infrastructure conditions, such as roads, toilets, electricity, and surroundings; and (iv) education quality for children. Column 6 reports the number of people the respondent feels they could approach for help when facing a serious personal problem. Regressions follow the specification described in Section 4, with T indicating assignment to the information treatment. Covariates are selected using double LASSO. Standard errors are clustered at the village level. p < 0.10, p<0.05, p<0.01

Table D.24: Aspirations for children

	Wants children to:			Actual work:		
	Highest edu: Postgrad	Skilled profession	Farm work	Skilled work	Farm work	Plans to migrate
	(1)	(2)	(3)	(4)	(5)	(6)
Treat X OverEst	-0.009	0.008	0.010	0.005	-0.011	-0.035**
	(0.019)	(0.012)	(0.016)	(0.009)	(0.014)	(0.018)
Treat X NotOverEst	-0.036	-0.001	0.003	-0.007	-0.008	0.032
	(0.033)	(0.023)	(0.026)	(0.016)	(0.024)	(0.031)
OverEst	-0.104***	0.004	-0.026	0.002	-0.027	0.016
	(0.031)	(0.021)	(0.027)	(0.017)	(0.026)	(0.041)
Obs	1936	1936	1936	1936	1936	1936
Ctrl mean: NotOverEst	0.239	0.938	0.132	0.967	0.165	0.556
Ctrl mean: OverEst	0.245	0.945	0.124	0.962	0.142	0.520
p: OverEst = NotOverEst	0.511	0.722	0.817	0.475	0.887	0.076

Notes: This table presents treatment effects on respondents' aspirations and expectations for their children's future. Column 1 reports the share who aspire for their children to attain a postgraduate degree. Columns 2–3 report the share aspiring for skilled and farm work, respectively. Columns 4–5 report beliefs about the type of work children will actually do. Column 6 reports the share planning to migrate. All regressions follow the specification in Section 4, with T indicating assignment to the information treatment. Covariates are selected via double LASSO. Standard errors are clustered at the village level. p < 0.10, p<0.05, p<0.01

Table D.25: Tax Support and 1 k Lottery Forfeit for Civic Action

	1k Lottery over information on:		Agree for a 0.1% ↑ in:	
	Ranchi's progress on other ADP indicators	Steps that citizens could follow	Income tax	Goods and service tax tax
	(1)	(2)	(3)	(4)
Panel A: Just after				
Treat X OverEst	0.035	0.040*	0.030*	0.033
	(0.022)	(0.023)	(0.017)	(0.022)
Treat X NotOverEst	-0.008	-0.011	0.065**	0.059**
	(0.029)	(0.028)	(0.027)	(0.030)
OverEst	-0.001	0.010	0.054	0.022
	(0.032)	(0.031)	(0.033)	(0.038)
Obs	2107	2107	2107	2107
Ctrl mean: NotOverEst	0.603	0.595	0.669	0.685
Ctrl mean: OverEst	0.692	0.701	0.671	0.670
p: OverEst = NotOverEst	0.186	0.098	0.284	0.498
Panel B: +1 month				
Treat X OverEst	-0.019	-0.014	0.015	-0.001
	(0.025)	(0.025)	(0.014)	(0.014)
Treat X NotOverEst	0.049	0.057	0.022	0.008
	(0.038)	(0.039)	(0.026)	(0.023)
OverEst	0.027	0.038	-0.005	0.006
	(0.031)	(0.033)	(0.029)	(0.025)
Obs	1936	1936	1936	1936
Ctrl mean: NotOverEst	0.494	0.444	0.819	0.840
Ctrl mean: OverEst	0.488	0.457	0.799	0.830
p: OverEst = NotOverEst	0.139	0.141	0.821	0.768

Notes: This table presents treatment effects on respondents' willingness to support government initiatives through tax contributions and their preferences between monetary incentives and information. Columns 1 and 2 report the share of respondents who opted to participate in a 1,000 lottery rather than receive: (i) an exclusive, accessible summary of Ranchi's performance under the Aspirational Districts Program; and (ii) exclusive information on how citizens can demand better public service delivery. Columns 3 and 4 show the share of respondents who agreed to a hypothetical 0.1% increase in their annual income tax and in indirect taxes (GST/VAT), respectively. Regressions follow the specification described in Section 4, with T indicating assignment to the information treatment. Covariates are selected using double LASSO. Standard errors are clustered at the village level. $p < 0.10$, $p<0.05$, $p<0.01$

Table D.26: Beliefs about social ability to participate with the government

	Officials free of corruption (1)	People can participate in protests (2)	Preferences not accounted for services (3)	Can voice concerns without fear (4)	Should accept poor services (5)	Community supports pol. participation (6)	Community encourages civic participation (7)	Participation is a civic duty (8)
Treat X OverEst	-0.027	0.003	-0.033*	-0.001	-0.013	0.010	0.002	0.003
	(0.023)	(0.018)	(0.020)	(0.021)	(0.022)	(0.014)	(0.010)	(0.010)
Treat X NotOverEst	0.003	-0.021	0.007	0.024	0.047	0.030	-0.019*	0.007
	(0.044)	(0.043)	(0.028)	(0.038)	(0.041)	(0.028)	(0.010)	(0.013)
OverEst	-0.026	0.021	-0.007	0.023	0.083**	0.045*	-0.008	0.025
	(0.033)	(0.041)	(0.028)	(0.033)	(0.032)	(0.024)	(0.012)	(0.017)
Obs	1936	1936	1936	1936	1936	1936	1936	1936
Ctrl mean: NotOverEst	0.531	0.749	0.835	0.802	0.733	0.844	0.975	0.951
Ctrl mean: OverEst	0.521	0.774	0.837	0.817	0.796	0.880	0.971	0.964
p: OverEst = NotOverEst	0.551	0.629	0.192	0.539	0.180	0.512	0.153	0.825

Notes: This table presents treatment effects on respondents' perceptions of civic participation and governance. Columns 1–4 report the share agreeing with the following statements: (i) public officials are free of corruption; (ii) people have the freedom to organize and protest; (iii) public preferences are not considered in service delivery decisions; (iv) citizens can remove an unwanted government through elections. Columns 5–8 report agreement with statements on civic norms and engagement: (i) community support or discouragement for political participation; (ii) importance of attending public meetings to demand accountability; (iii) civic duty to participate in NGO or CSO-led initiatives for service delivery. All regressions follow the specification in Section 4, with T indicating assignment to the information treatment. Covariates are selected via double LASSO. Standard errors are clustered at the village level. p < 0.10, p<0.05, p<0.01

D.4 Baseline participation

Table D.27: Revealed Participation Behavior

	Online Petition			Willing to	Workshop		Overall
	Health	Education	Infrastructure	put effort	Registered	Attended	Factor
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Treat X AM:BLPart	0.044	0.052*	0.046	0.036**	0.009	0.106***	0.100
	(0.030)	(0.031)	(0.030)	(0.016)	(0.024)	(0.023)	(0.062)
Treat X BM:BLPart	0.064***	0.058**	0.055**	0.076***	0.065***	0.115***	0.125**
	(0.024)	(0.023)	(0.026)	(0.023)	(0.024)	(0.022)	(0.049)
Above median:BL part	0.044	0.039	0.042	0.029	0.081***	-0.007	0.088
	(0.031)	(0.030)	(0.031)	(0.024)	(0.025)	(0.022)	(0.062)
Obs	2107	2107	2107	2107	2107	2107	2107
Ctrl mean: Notbasepart	0.527	0.531	0.527	0.707	0.475	0.034	-0.215
Ctrl mean: basepart	0.746	0.742	0.744	0.923	0.544	0.040	0.238
p: basepart = Notbasepart	0.524	0.857	0.783	0.109	0.037	0.676	0.707

Notes: This table presents respondents' revealed participation in civic activities immediately after viewing the informational video. Columns 1–3 report the share of respondents who signed anonymous online petitions addressed to the District Magistrate, advocating for: (i) urgent action against malnutrition among children under age six; (ii) measures to reduce overcrowding in public school classrooms; and (iii) improvements to road conditions and uncovered manholes. Signing was confirmed only if the respondent read the full petition text. Column 4 reports the share of respondents willing to invest substantial time or effort in accessing state performance information to hold the government accountable. Column 5 shows the percentage who signed up for a training workshop on using public grievance redressal mechanisms. Column 6 reports actual attendance at the workshop. Column 7 presents a composite participation index constructed as a latent trait using factor analysis of responses in Columns 1–6. All regressions follow the specification in Section 4. Covariates are selected via double LASSO. Standard errors are clustered at the village level. p < 0.10, p<0.05, p<0.01.

D.5 Baseline awareness about government programs

Table D.28: Revealed Participation Behavior

	Online Petition			Willing to	Workshop		Overall
	Health	Education	Infrastructure	put effort	Registered	Attended	Factor
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Treat X AM:Aware	0.049*	0.053**	0.041	0.073***	0.021	0.117***	0.102**
	(0.026)	(0.024)	(0.026)	(0.019)	(0.028)	(0.027)	(0.051)
Treat X BM:Aware	0.065**	0.061**	0.065**	0.040*	0.067***	0.104***	0.134**
	(0.028)	(0.026)	(0.027)	(0.022)	(0.023)	(0.022)	(0.055)
Above median:Aware	-0.007	-0.007	0.009	0.021	0.041	-0.008	-0.004
	(0.024)	(0.026)	(0.025)	(0.030)	(0.038)	(0.021)	(0.050)
Obs	2107	2107	2107	2107	2107	2107	2107
Ctrl mean: Notaware	0.574	0.574	0.571	0.748	0.437	0.034	-0.122
Ctrl mean: aware	0.688	0.688	0.690	0.871	0.578	0.040	0.123
p: aware = Notaware	0.594	0.786	0.416	0.204	0.152	0.669	0.590

Notes: This table presents respondents' revealed participation in civic activities immediately after viewing the informational video. Columns 1–3 report the share of respondents who signed anonymous online petitions addressed to the District Magistrate, advocating for: (i) urgent action against malnutrition among children under age six; (ii) measures to reduce overcrowding in public school classrooms; and (iii) improvements to road conditions and uncovered manholes. Signing was confirmed only if the respondent read the full petition text. Column 4 reports the share of respondents willing to invest substantial time or effort in accessing state performance information to hold the government accountable. Column 5 shows the percentage who signed up for a training workshop on using public grievance redressal mechanisms. Column 6 reports actual attendance at the workshop. Column 7 presents a composite participation index constructed as a latent trait using factor analysis of responses in Columns 1–6. All regressions follow the specification in Section 4. Covariates are selected via double LASSO. Standard errors are clustered at the village level. $p < 0.10$, $p<0.05$, $p<0.01$.

D.5.1 Degree of Social Network

Table D.29: Revealed Participation Behavior

	Online Petition			Willing to	Workshop		Overall
	Health	Education	Infrastructure	put effort	Registered	Attended	Factor
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Treat X AM:degree	0.053*	0.062**	0.053*	0.037**	0.049**	0.097***	0.118**
	(0.027)	(0.026)	(0.027)	(0.016)	(0.025)	(0.024)	(0.056)
Treat X BM:degree	0.059***	0.051**	0.051**	0.079***	0.036	0.124***	0.113**
	(0.022)	(0.022)	(0.023)	(0.026)	(0.025)	(0.023)	(0.045)
Above median:degree	-0.002	-0.011	-0.013	0.026	0.005	0.008	-0.017
	(0.024)	(0.024)	(0.024)	(0.027)	(0.029)	(0.018)	(0.049)
Obs	2107	2107	2107	2107	2107	2107	2107
Ctrl mean: Notdegree	0.622	0.626	0.624	0.757	0.532	0.039	-0.015
Ctrl mean: degree	0.640	0.636	0.636	0.865	0.482	0.035	0.015
p: degree = Notdegree	0.801	0.651	0.935	0.151	0.657	0.249	0.919

Notes: This table presents respondents' revealed participation in civic activities immediately after viewing the informational video. Columns 1–3 report the share of respondents who signed anonymous online petitions addressed to the District Magistrate, advocating for: (i) urgent action against malnutrition among children under age six; (ii) measures to reduce overcrowding in public school classrooms; and (iii) improvements to road conditions and uncovered manholes. Signing was confirmed only if the respondent read the full petition text. Column 4 reports the share of respondents willing to invest substantial time or effort in accessing state performance information to hold the government accountable. Column 5 shows the percentage who signed up for a training workshop on using public grievance redressal mechanisms. Column 6 reports actual attendance at the workshop. Column 7 presents a composite participation index constructed as a latent trait using factor analysis of responses in Columns 1–6. All regressions follow the specification in Section 4. Covariates are selected via double LASSO. Standard errors are clustered at the village level. $p < 0.10$, $p<0.05$, $p<0.01$.

D.5.2 Beliefs on performance *levels*

Table D.30: Revealed Participation Behavior

	Online Petition			Willing to	Workshop		Overall
	Health	Education	Infrastructure	put effort	Registered	Attended	Factor
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Treat	-0.016	-0.012	-0.007	-0.009	0.018	-0.002	-0.024
	(0.027)	(0.027)	(0.027)	(0.020)	(0.029)	(0.012)	(0.055)
OverEst	-0.111***	-0.107***	-0.098***	-0.048**	-0.055	-0.001	-0.220***
	(0.029)	(0.028)	(0.028)	(0.024)	(0.034)	(0.017)	(0.057)
Treat × OverEst	0.069**	0.065**	0.056*	0.065***	0.021	0.112***	0.133**
	(0.032)	(0.031)	(0.032)	(0.025)	(0.037)	(0.023)	(0.064)
Level	-0.003	-0.001	-0.002	-0.001	-0.005**	0.001	-0.004
	(0.002)	(0.002)	(0.002)	(0.001)	(0.002)	(0.001)	(0.004)
Treat × Level	0.002	0.001	0.001	-0.002*	0.000	-0.001	0.003
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.002)
OverEst × Level	0.003*	0.002	0.003	0.001	0.006***	-0.001	0.005
	(0.002)	(0.002)	(0.002)	(0.001)	(0.002)	(0.001)	(0.003)
Treat × OverEst × Level	-0.004***	-0.003*	-0.003	-0.001	-0.003	-0.001	-0.007**
	(0.002)	(0.002)	(0.002)	(0.001)	(0.002)	(0.001)	(0.003)
Obs	2107	2107	2107	2107	2107	2107	2107
TE for OverEst	0.052**	0.053**	0.049**	0.056***	0.039**	0.110***	0.109**
SE	(0.022)	(0.021)	(0.022)	(0.016)	(0.020)	(0.020)	(0.045)
p	0.019	0.012	0.027	0.000	0.054	0.000	0.015

Notes: This table presents respondents' revealed participation in civic activities immediately after viewing the informational video. Columns 1–3 report the share of respondents who signed anonymous online petitions addressed to the District Magistrate, advocating for: (i) urgent action against malnutrition among children under age six; (ii) measures to reduce overcrowding in public school classrooms; and (iii) improvements to road conditions and uncovered manholes. Signing was confirmed only if the respondent read the full petition text. Column 4 reports the share of respondents willing to invest substantial time or effort in accessing state performance information to hold the government accountable. Column 5 shows the percentage who signed up for a training workshop on using public grievance redressal mechanisms. Column 6 reports actual attendance at the workshop. Column 7 presents a composite participation index constructed as a latent trait using factor analysis of responses in Columns 1–6. All regressions follow the specification in Section 4. Covariates are selected via double LASSO. Standard errors are clustered at the village level. $p < 0.10$, $p<0.05$, $p<0.01$.

Table D.31: Stated Individual Participation behavior after 1 month

	Plans to File RTI	Used complaint portals	Donated to citizen events	Opinion on Social media	Overall Factor
	(1)	(2)	(3)	(4)	(5)
Treat	0.038	0.014	0.038	0.020	0.075
	(0.035)	(0.038)	(0.033)	(0.032)	(0.074)
OverEst	-0.015	0.010	-0.018	-0.023	-0.025
	(0.033)	(0.029)	(0.029)	(0.029)	(0.052)
Treat × OverEst	0.014	0.031	0.045	0.063*	0.111
	(0.042)	(0.040)	(0.039)	(0.040)	(0.086)
Level	-0.000	0.003**	0.003	0.000	0.004
	(0.001)	(0.002)	(0.002)	(0.001)	(0.003)
Treat × Level	0.001	-0.004*	-0.004**	0.000	-0.006*
	(0.001)	(0.002)	(0.002)	(0.002)	(0.004)
OverEst × Level	0.002	-0.004**	-0.002	0.001	-0.002
	(0.002)	(0.002)	(0.002)	(0.002)	(0.003)
Treat × OverEst × Level	-0.001	0.004	0.004**	-0.000	0.007
	(0.002)	(0.003)	(0.002)	(0.002)	(0.005)
Obs	1936	1936	1936	1936	1936
TE for OverEst	0.052***	0.046***	0.082***	0.083***	0.186***
SE	(0.019)	(0.021)	(0.021)	(0.023)	(0.046)
p	0.008	0.030	0.000	0.000	0.000

Notes: This table reports treatment effects on respondents' self-reported civic participation in activities that can be undertaken independently at the individual level, measured one month after viewing the informational video. Column 1 presents the share of respondents who reported filing or planning to file a Right to Information (RTI) request. Column 2 reports the share who reported having used formal government complaint channels, such as the Centralized Public Grievance Redressal System (CPGRAMS), Mann ki Baat application, or Gram Sabha complaint boxes. Column 3 captures the share who contributed financially to citizen-organized events or protests aimed at improving public service delivery. Column 4 shows the percentage who used social media to express views on politics or government performance. Column 5 presents a composite index of participation, constructed as a latent trait using factor analysis from the indicators in Columns 1–4. All regressions follow the specification in Section 4, where T denotes assignment to the information treatment. Covariates are selected using double LASSO. Standard errors are clustered at the village level. $p < 0.10$, $p<0.05$, $p<0.01$.

Table D.32: Stated Collective Participation behavior after 1 month

	Met Civic Officials	Attended Village meetings	Met with public groups	Talked to citizen groups	Initiatives by civil society	Overall Factor
	(1)	(2)	(3)	(4)	(5)	(6)
Treat	0.032	0.019	0.007	-0.011	-0.060	0.005
	(0.042)	(0.026)	(0.023)	(0.034)	(0.039)	(0.072)
OverEst	0.048	0.041	-0.013	-0.020	-0.027	0.012
	(0.034)	(0.028)	(0.025)	(0.029)	(0.035)	(0.065)
Treat × OverEst	0.010	-0.008	0.019	0.059*	0.120***	0.124
	(0.049)	(0.031)	(0.027)	(0.037)	(0.042)	(0.083)
Level	0.001	0.000	-0.000	0.001	0.003	0.002
	(0.002)	(0.001)	(0.001)	(0.002)	(0.002)	(0.003)
Treat × Level	0.001	0.002*	0.001	0.000	-0.000	0.004
	(0.002)	(0.001)	(0.002)	(0.002)	(0.002)	(0.004)
OverEst × Level	0.002	0.001	-0.001	-0.002	-0.000	-0.003
	(0.002)	(0.002)	(0.001)	(0.002)	(0.002)	(0.004)
Treat × OverEst × Level	-0.002	-0.003	0.001	0.001	-0.001	-0.001
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.005)
Obs	1936	1936	1936	1936	1936	1936
TE for OverEst	0.042*	0.010	0.026	0.048**	0.060***	0.129**
SE	(0.025)	(0.018)	(0.020)	(0.024)	(0.020)	(0.051)
p	0.087	0.566	0.208	0.046	0.003	0.011

Notes: This table reports treatment effects on respondents' self-reported participation in civic activities involving engagement with public officials, civil society organizations, or collective efforts, measured one month after viewing the informational video. Column 1 shows the share of respondents who reported having met with a civic official (e.g., Block Development Officer, Gram Panchayat Secretary, Village Development Officer or Panchayat Development Officer, Revenue Officials such as Patwari/Lekhpal, or officials from the District Magistrate's office). Column 2 reports the share who attended local government meetings such as the Gram Sabha. Column 3 captures the percentage who met with frontline service providers or local leaders (e.g., anganwadi workers, school heads, or village representatives) to discuss issues related to health, education, or local infrastructure. Column 4 shows the share who participated in a group discussion about the government's performance. Column 5 captures the share who took part in initiatives led by civil society organizations. Column 6 presents a composite participation index, constructed as a latent trait using factor analysis from Columns 1–4. All regressions follow the specification described in Section 4, with T indicating assignment to the information treatment. Covariates are selected using double LASSO. Standard errors are clustered at the village level. p < 0.10, p<0.05, p<0.01

C Attrition

Table D.33: Attrition in the follow up survey

Variable	(1) No covariates	(2) With covariates	(3) Heterogeneous
Treatment status	-0.007	-0.007	-0.009
	(0.011)	(0.011)	(0.029)
Age (years)		0.000	0.000
		(0.001)	(0.001)
Female		0.023	0.021
		(0.017)	(0.022)
Married		-0.009	-0.009
		(0.012)	(0.012)
Any education		0.007	0.007
		(0.013)	(0.013)
Hindu/Sarna		0.000	0.001
		(0.013)	(0.013)
Backward class		0.021*	0.025
		(0.012)	(0.017)
HH size (winsorized)		-0.002	-0.002
		(0.003)	(0.003)
# of children in the HH (winsorized)		0.010**	0.010**
		(0.005)	(0.005)
# of children under 6		0.002	-0.008
		(0.006)	(0.009)
Is HH head		0.003	-0.007
		(0.014)	(0.020)
Ever visited: Gumla		0.008	0.008
		(0.015)	(0.015)
Ever visited: Hazaribagh		-0.007	-0.007
		(0.016)	(0.016)
Ever visited: Ramgarh		0.017	0.018
		(0.018)	(0.018)
Ever visited: Khunti		-0.011	-0.011
		(0.015)	(0.015)
Ever visited: Lohardaga		0.011	0.010
		(0.016)	(0.016)
Ever visited: None		0.016	0.016
		(0.018)	(0.018)
Migrant		0.011	0.013
		(0.019)	(0.024)
Constant	0.937***	0.883***	0.884***
	(0.008)	(0.042)	(0.047)

Notes: This Table shows the results on attrition from the follow up survey. The outcome variable is whether or not the respondent consents to participating in the follow up survey. Column 1 shows the regression results without any covariates. Column 2 shows the regression results with covariates and Column 3 shows results by adding interaction terms of covariates. Significance at the 1% level, ** at the 5% level, * at the 10% level.

D.1 Balance on other characteristics

Table D.34: Prior Beliefs about government's success in delivering public services

	(1)	(2)	(3)	(4)
			Difference	
Variable	Control	Treatment	Mean	Standardized
Reducing malnutrition	0.541	0.521	-0.019	-0.027
	(0.499)	(0.500)	(0.355)	
Improving pupil teacher ratio	0.622	0.596	-0.026	-0.037
	(0.485)	(0.491)	(0.202)	
Promoting access to roads	0.624	0.627	0.003	0.004
	(0.485)	(0.484)	(0.887)	
Successful in any of 3 dimension	0.756	0.753	-0.003	-0.005
	(0.430)	(0.432)	(0.854)	
Overall factor	0.021	-0.022	-0.043	-0.026
	(1.186)	(1.177)	(0.353)	
Observations	1,060	1,047	2,107	

Notes: This Table shows the descriptive statistics of respondent's beliefs about how successful has the government been in ensuring quality of public service delivery. Column 1 and 2 report the mean and the standard deviation of observations in the control and treatment group respectively. These differences are obtained by regressing each variable on the treatment indicator, and the tests of significance are based on the regression estimates (* $p < 0.10$, ** $p < 0.05$, ***$p < 0.01$). Column 3 reports the difference in means of the treatment and control group (Column 2 - Column 1) and the significance of the differences. Columns 4 reports the normalized difference between the treatment and control group, computed as the difference in means in the relevant treatment and control observations divided by the square root of the sum of the variances. All index variables have been standardized with respect to the control group and monetary values are in Indian National Rupee (INR) and are winsorized at the top 99th percentile. Refused and Don't know responses have been coded as 0 during the data cleaning stage.

Table D.35: Prior Beliefs about district's level based performance

	(1)	(2)	(3)	(4)
			Difference	
Variable	Control	Treatment	Mean	Standardized
First order beliefs on performance level:				
Out of 100:				
# of very very light children under 6	19.121	19.574	0.454	0.019
	(16.750)	(16.924)	(0.519)	
# of schools not complying with pupil teacher ratio	32.946	33.205	0.259	0.008
	(23.415)	(23.523)	(0.824)	
# of habitations with access to bad roads	40.292	40.776	0.484	0.013
	(25.310)	(25.474)	(0.631)	
Overall factor (std)	-0.000	0.024	0.024	0.017
	(1.000)	(1.019)	(0.615)	
Beliefs about whether belief about level is of concern				
# of very very light children under 6	0.849	0.861	0.011	0.023
	(0.358)	(0.347)	(0.421)	
# of elementary schools not complying with PTR	0.853	0.845	-0.008	-0.015
	(0.354)	(0.362)	(0.575)	
# of habitations with access to bad roads	0.844	0.833	-0.011	-0.022
	(0.363)	(0.373)	(0.445)	
Overall factor	-0.000	-0.015	-0.015	-0.011
	(1.000)	(1.014)	(0.688)	
Second order beliefs about performance level				
Out of 100:				
# of very very light children under 6	20.858	21.857	1.000	0.040
	(17.431)	(18.187)	(0.176)	
# of elementary schools not complying with PTR	34.987	35.709	0.722	0.022
	(23.004)	(22.781)	(0.532)	
# of habitations with access to bad roads	42.893	43.474	0.581	0.017
	(24.393)	(24.738)	(0.497)	
Overall factor	0.000	0.050	0.050	0.034
	(1.000)	(1.042)	(0.286)	
Observations	1,060	1,047	2,107	

Notes: This Table shows the descriptive statistics of respondent's first and second order beliefs on levels of government performance and if they think the levels are of concern. Column 1 and 2 report the mean and the standard deviation of observations in the control and treatment group respectively. These differences are obtained by regressing each variable on the treatment indicator, and the tests of significance are based on the regression estimates (* $p < 0.10$, ** $p < 0.05$, ***$p < 0.01$). Column 3 reports the difference in means of the treatment and control group (Column 2 - Column 1) and the significance of the differences. Columns 4 reports the normalized difference between the treatment and control group, computed as the difference in means in the relevant treatment and control observations divided by the square root of the sum of the variances. All index variables have been standardized with respect to the control group and monetary values are in Indian National Rupee (INR) and are winsorized at the top 99th percentile. Refused and Don't know responses have been coded as 0 during the data cleaning stage.

D.2 Socio-economic status

D.2.1 Dwelling

Table D.36: Details about dwelling

	(1)	(2)	(3)	(4)
			Difference	
Variable	Control	Treatment	Mean	Standardized
Owns the dwelling	0.986	0.988	0.002	0.011
	(0.118)	(0.111)	(0.004)	
No Roof	0.048	0.058	0.010	0.032
	(0.214)	(0.234)	(0.009)	
Asbestos sheets	0.325	0.315	-0.010	-0.016
	(0.469)	(0.465)	(0.018)	
Concrete, cement	0.243	0.259	0.015	0.025
	(0.429)	(0.438)	(0.019)	
Iron sheets	0.014	0.005	-0.009*	-0.069
	(0.118)	(0.069)	(0.005)	
Natural materials	0.361	0.354	-0.007	-0.010
	(0.481)	(0.479)	(0.018)	
Tiles	0.008	0.009	0.001	0.008
	(0.087)	(0.092)	(0.006)	
Number of rooms for the HH members	2.510	2.547	0.037	0.023
	(1.107)	(1.131)	(0.050)	
Observations	1,060	1,047	2,107	

Notes: This Table shows the descriptive statistics on the dwelling the respondent resides in. Column 1 and 2 report the mean and the standard deviation of observations in the control and treatment group respectively. These differences are obtained by regressing each variable on the treatment indicator, and the tests of significance are based on the regression estimates (* p < 0.10, ** p < 0.05, ***p < 0.01). Column 3 reports the difference in means of the treatment and control group (Column 2 - COlumn 1) and the significance of the differences. Columns 4 reports the normalized difference between the treatment and control group, computed as the difference in means in the relevant treatment and control observations divided by the square root of the sum of the variances. All index variables have been standardized with respect to the control group and monetary values are in Indian National Rupee (INR) and are winsorized at the top 99th percentile. Refused and Don't know responses have been coded as 0 during the data cleaning stage.

D.2.2 Cooking fuel

Table D.37: Details about cooking fuel

	(1)	(2)	(3)	(4)
			Difference	
Variable	Control	Treatment	Mean	Standardized
No food cooked	0.009	0.011	0.001	0.008
	(0.097)	(0.102)	(0.004)	
Biogas/Solar/Electric stove	0.058	0.049	-0.010	-0.031
	(0.235)	(0.215)	(0.010)	
LPG/cooking gas/piped stove	0.320	0.330	0.011	0.016
	(0.467)	(0.471)	(0.022)	
Liquid fuel stove	0.026	0.024	-0.003	-0.011
	(0.160)	(0.153)	(0.006)	
Solid fuel stove	0.001	0.001	0.000	0.000
	(0.031)	(0.031)	(0.001)	
Three stone stove /open fire	0.585	0.585	0.001	0.001
	(0.493)	(0.493)	(0.022)	
Observations	1,060	1,047	2,107	

Notes: This Table shows the descriptive statistics on the cooking fuel used by the household. Column 1 and 2 report the mean and the standard deviation of observations in the control and treatment group respectively. These differences are obtained by regressing each variable on the treatment indicator, and the tests of significance are based on the regression estimates (* $p < 0.10$, ** $p < 0.05$, ***$p < 0.01$). Column 3 reports the difference in means of the treatment and control group (Column 2 - COlumn 1) and the significance of the differences. Columns 4 reports the normalized difference between the treatment and control group, computed as the difference in means in the relevant treatment and control observations divided by the square root of the sum of the variances. All index variables have been standardized with respect to the control group and monetary values are in Indian National Rupee (INR) and are winsorized at the top 99th percentile. Refused and Don't know responses have been coded as 0 during the data cleaning stage.

D.2.3 Drinking water access

Table D.38: Details about main source of drinking water

	(1)	(2)	(3)	(4)
			Difference	
Variable	Control	Treatment	Mean	Standardized
Bottled water	0.001	0.004	0.003	0.042
	(0.031)	(0.062)	(0.002)	
Handpump	0.199	0.185	-0.014	-0.025
	(0.399)	(0.389)	(0.020)	
Other: tankers/truck/cart	0.002	0.004	0.002	0.026
	(0.043)	(0.062)	(0.002)	
Piped water into dwelling	0.113	0.113	-0.001	-0.001
	(0.317)	(0.316)	(0.014)	
Piped water to yard or clot	0.031	0.052	0.020**	0.073
	(0.174)	(0.221)	(0.010)	
Public tap/sand pipe	0.188	0.214	0.026	0.046
	(0.391)	(0.410)	(0.019)	
Spring: Protected	0.006	0.005	-0.001	-0.009
	(0.075)	(0.069)	(0.003)	
Surface water tank/pond	0.011	0.006	-0.006	-0.043
	(0.106)	(0.076)	(0.003)	
Tubewell/Borehole	0.205	0.170	-0.035**	-0.063
	(0.404)	(0.376)	(0.016)	
Well: protected	0.149	0.154	0.005	0.009
	(0.356)	(0.361)	(0.015)	
Well: unprotected	0.095	0.095	-0.001	-0.002
	(0.294)	(0.293)	(0.011)	
Observations	1,060	1,047	2,107	

Notes: This Table shows the descriptive statistics on the details about drinking water available to the household. Column 1 and 2 report the mean and the standard deviation of observations in the control and treatment group respectively. These differences are obtained by regressing each variable on the treatment indicator, and the tests of significance are based on the regression estimates (* $p < 0.10$, ** $p < 0.05$, ***$p < 0.01$). Column 3 reports the difference in means of the treatment and control group (Column 2 - COlumn 1) and the significance of the differences. Columns 4 reports the normalized difference between the treatment and control group, computed as the difference in means in the relevant treatment and control observations divided by the square root of the sum of the variances. All index variables have been standardized with respect to the control group and monetary values are in Indian National Rupee (INR) and are winsorized at the top 99th percentile. Refused and Don't know responses have been coded as 0 during the data cleaning stage.

D.2.4 Toilet facility

Table D.39: Details on type toilet facility used by the household

	(1)	(2)	(3)	(4)
				Difference
Variable	Control	Treatment	Mean	Standardized
No facility	0.133	0.137	0.004	0.007
	(0.340)	(0.344)	(0.015)	
ECOSAN	0.001	0.000	-0.001	-0.031
	(0.031)	(0.000)	(0.001)	
Flush toilet	0.015	0.017	0.002	0.012
	(0.122)	(0.130)	(0.007)	
Pit latrine with slab (not washable)	0.062	0.057	-0.005	-0.015
	(0.242)	(0.233)	(0.012)	
Pit latrine with slab (washable)	0.773	0.779	0.007	0.011
	(0.419)	(0.415)	(0.017)	
Pit latrine without slab/open pit	0.010	0.009	-0.002	-0.013
	(0.101)	(0.092)	(0.004)	
Pour flush	0.003	0.001	-0.002	-0.030
	(0.053)	(0.031)	(0.002)	
VIP	0.003	0.000	-0.003*	-0.053
	(0.053)	(0.000)	(0.002)	
Observations	1,060	1,047	2,107	

Notes: This Table shows the descriptive statistics on the details about type of toilet facility used by the household. Column 1 and 2 report the mean and the standard deviation of observations in the control and treatment group respectively. These differences are obtained by regressing each variable on the treatment indicator, and the tests of significance are based on the regression estimates (* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$). Column 3 reports the difference in means of the treatment and control group (Column 2 - COlumn 1) and the significance of the differences. Columns 4 reports the normalized difference between the treatment and control group, computed as the difference in means in the relevant treatment and control observations divided by the square root of the sum of the variances. All index variables have been standardized with respect to the control group and monetary values are in Indian National Rupee (INR) and are winsorized at the top 99th percentile. Refused and Don't know responses have been coded as 0 during the data cleaning stage.

D.2.5 Access to electricity and sanitation

Table D.40: Details on access to electricity and sanitation

	(1)	(2)	(3)	(4)
				Difference
Variable	Control	Treatment	Mean	Standardized
Electricity	0.953	0.944	-0.009	-0.029
	(0.212)	(0.231)	(0.010)	
Piped water connection	0.332	0.337	0.005	0.008
	(0.471)	(0.473)	(0.019)	
Sewage systems	0.092	0.097	0.005	0.012
	(0.290)	(0.297)	(0.011)	
Owns agricultural land	0.399	0.416	0.017	0.025
	(0.490)	(0.493)	(0.018)	
Observations	1,060	1,047	2,107	

Notes: This Table shows the descriptive statistics on the access to electricity, sewage systems and piped water connection by the household. Column 1 and 2 report the mean and the standard deviation of observations in the control and treatment group respectively. These differences are obtained by regressing each variable on the treatment indicator, and the tests of significance are based on the regression estimates (* p < 0.10, ** p < 0.05, ***p < 0.01). Column 3 reports the difference in means of the treatment and control group (Column 2 - COlumn 1) and the significance of the differences. Columns 4 reports the normalized difference between the treatment and control group, computed as the difference in means in the relevant treatment and control observations divided by the square root of the sum of the variances. All index variables have been standardized with respect to the control group and monetary values are in Indian National Rupee (INR) and are winsorized at the top 99th percentile. Refused and Don't know responses have been coded as 0 during the data cleaning stage.

References

Abadie, A., Athey, S., Imbens, G. W., and Wooldridge, J. M. (2023). When should you adjust standard errors for clustering? *The Quarterly Journal of Economics*, 138(1):1–35.

Acemoglu, D., Egorov, G., and Sonin, K. (2013). A political theory of populism. *Quarterly Journal of Economics*, 128(2):771–805.

Alatas, V., Banerjee, A., Hanna, R., Olken, B., and Tobias, J. (2012). Does elite capture matter? local elites and targeted welfare programs in indonesia. *American Economic Journal: Applied Economics*, 4(2):1–26.

Attanasio, O. and Kaufmann, K. (2009). Educational choices, subjective expectations, and credit constraints. Technical report, National Bureau of Economic Research.

Banerjee, A., Hanna, R., Kyle, J., Olken, B. A., and Sumarto, S. (2018). Tangible information and citizen empowerment: Identification cards and food subsidy programs in indonesia. *Journal of Political Economy*, 126(2):451–491.

Banerjee, A., Kumar, S., Pande, R., and Su, F. (2011). Do informed voters make better choices? experimental evidence from urban india. *Unpublished manuscript*.

Banerjee, A. V., Banerji, R., Duflo, E., Glennerster, R., and Khemani, S. (2010). Pitfalls of participatory programs: Evidence from a randomized evaluation in education in india. *American Economic Journal: Economic Policy*, 2(1):1–30.

Belloni, A., Chernozhukov, V., and Hansen, C. (2014). High-dimensional methods and inference on structural and treatment effects. *Journal of Economic Perspectives*, 28(2):29–50.

Besley, T. (2006). *Principled Agents? The Political Economy of Good Government*. Oxford University Press, Oxford.

Besley, T. and Burgess, R. (2002). The political economy of government responsiveness: Theory and evidence from india. *The Quarterly Journal of Economics*, 117(4):1415–1451.

Besley, T. and Persson, T. (2020). Weak states and global threats: Assessing evidence from the state capacity literature. *Annual Review of Economics*, 12:383–403.

Björkman, M. and Svensson, J. (2009). Power to the people: Evidence from a randomized field experiment on community-based monitoring in uganda. *Quarterly Journal of Economics*, 124(2):735–769.

Bobek, E. and Tversky, B. (2016). Creating visual explanations improves learning. *Cognitive research: principles and implications*, 1(1):27.

Casey, K., Glennerster, R., and Miguel, E. (2012). Reshaping institutions: Evidence on aid impacts using a pre-analysis plan. *Quarterly Journal of Economics*, 127(4):1755–1812.

Central Information Commission of India (2020). Rti annual report. https://www.msde.gov.in/en/reports-documents/RTI. Accessed: 2024-09-23.

Chong, A., De La O, A. L., Karlan, D., and Wantchekon, L. (2015). Does corruption information inspire the fight or quash the hope? a field experiment in mexico on voter turnout. *Journal of Politics*, 77(1):55–71.

Coffey, D. and Spears, D. (2017). *Where India Goes: Abandoned Toilets, Stunted Development and the Costs of Caste*. HarperCollins India.

Coibion, O., Georgarakos, D., Gorodnichenko, Y., and Weber, M. (2022). Forward guidance and household expectations. *Chicago Booth Research Paper*, (20-02):2020–06.

Das, J., Muralidharan, K., Singh, A., and Vlassoff, M. (2015). The myth of quality and the challenge of public education in india. *The Journal of Economic Perspectives*, 29(3):127–150.

Department of Administrative Reforms and Public Grievances, Government of India (2022). Cp-grams report. https://pgportal.gov.in/. Accessed: 2024-09-20.

DigiGaon Foundation (2023). Digigaon foundation. Accessed: 2023-09-23.

Drèze, J. and Sen, A. (2013). *An Uncertain Glory: India and Its Contradictions*. Princeton University Press.

Dunning, T., Nazarko, J., and Sadin, J. (2019). Can information campaigns reduce clientelism? evidence from a field experiment in mexico. *American Journal of Political Science*, 63(2):315–331.

Eil, D. and Rao, J. (2011). Are good people good at heart? a field experiment on the effect of altruism on performance. *Journal of the European Economic Association*, 9(5):835–864.

Ferraz, C. and Finan, F. (2008). Exposing corrupt politicians: The effects of brazil's publicly released audits on electoral outcomes. *Quarterly Journal of Economics*, 123(2):703–745.

Government of India (2023). Mygov portal. https://www.mygov.in. Accessed: 2024-09-20.

Government of Jharkhand and UNDP India (2018). Jharkhand human development report 2018. Technical report, Planning and Development Department, Government of Jharkhand.

Grossman, G., Humphreys, M., and Sacramone-Lutz, G. (2014). Do informational interventions crowd out traditional civic education? evidence from a field experiment in uganda. *The Journal of Politics*, 76(2):535–547.

Haaland, I., Roth, C., and Wohlfart, J. (2023). Designing information provision experiments. *Journal of economic literature*, 61(1):3–40.

Jablonski, R. S., Buntaine, M. T., Nielson, D. L., and Pickering, P. M. (2022). Individualized text messages about public services fail to sway voters: Evidence from a field experiment on ugandan elections. *Journal of Experimental Political Science*, 9(3):344–357.

McFadden, D. (1974). Conditional logit analysis of qualitative choice behavior. In Zarembka, P., editor, *Frontiers in Econometrics*, pages 105–142. Academic Press, New York.

National Statistical Office, Ministry of Statistics and Programme Implementation, Government of India (2020). Periodic labour force survey (plfs) 2019-2020. http://mospi.nic.in. Accessed: 2024-09-20.

NITI Aayog (2018). Transformation of aspirational districts. Technical report, Government of India.

NITI Aayog, Government of India (n.d.). Aspirational districts programme. https://www.niti.gov.in/aspirational-districts-programme. Accessed: 2024-09-20.

Office, N. S. S. (2019). Nsso report on digital literacy and internet access. Ministry of Statistics and Programme Implementation, Government of India.

Office of the Registrar General Census Commissioner, India (2011). Census of india 2011. https://censusindia.gov.in. Accessed: 2024-09-20.

Our World in Data (2025). Democracy dataset. https://ourworldindata.org/democracy. Accessed: 2025-09-06. License: CC BY.

Reinikka, R. and Svensson, J. (2005). Fighting corruption to improve schooling: Evidence from a newspaper campaign in uganda. *Journal of the European Economic Association*, 3(2-3):259–267.

Romano, J. P. and Wolf, M. (2005). Stepwise multiple testing as formalized data snooping. *Econometrica*, 73(4):1237–1282.

TheGlobalEconomy.com (2024). Public services index. https://www.theglobaleconomy.com/. Accessed: 2025-09-06.

Varieties of Democracy (V-Dem) Project (2025). V-dem democracy data (v-dem) - dataset. https://www.v-dem.net. Accessed: 2025-09-06. License: CC BY. Learn more at https://www.v-dem.net.

World Bank (2017). Social audits and social accountability in rural india. https://www.worldbank.org.

World Bank (2022). Citizen engagement annual report 2022. World Bank Open Knowledge Repository. Accessed: 2025-09-06.