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Working Paper

More information, better knowledge? The effects of information campaigns on aid beneficiaries' knowledge of aid projects

WIDER Working Paper, No. 2023/57

Provided in Cooperation with:

United Nations University (UNU), World Institute for Development Economics Research (WIDER)

Suggested Citation: de Juan, Alexander; Hofman, Paul; Koos, Carlo (2023) : More information, better knowledge? The effects of information campaigns on aid beneficiaries' knowledge of aid projects, WIDER Working Paper, No. 2023/57, ISBN 978-92-9267-365-9, The United Nations University World Institute for Development Economics Research (UNU-WIDER), Helsinki, <https://doi.org/10.35188/UNU-WIDER/2023/365-9>

This Version is available at:

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WIDER Working Paper 2023/57

More information, better knowledge? The effects of information campaigns on aid beneficiaries' knowledge of aid projects

Alexander De Juan,¹ Paul Hofman,² and Carlo Koos³

April 2023

In partnership with



Abstract: Aid beneficiaries know very little about development interventions in their own communities. This lack of transparency and information is likely to reduce beneficiaries' ability and willingness to become active in local development. It may also dampen intended aid effects on beneficiaries' political and social attitudes. Can targeted information campaigns strengthen beneficiaries' understanding of aid projects? We test the effects of two types of interventions: the provision of *information only* and the combination of *information and feedback* opportunities. We embed these interventions in a panel survey in rural Mali. Our information treatment is highly customized to specific local aid projects in respondents' locations and corresponds to beneficiaries' ex-ante information demands. Nonetheless, two months after the campaign, we find only small treatment effects on respondents' project-specific knowledge (type, location) and no effects on their procedural knowledge (selection mechanisms). Only people with favourable ex-ante views of the state's rule adherence and self-identified non-beneficiaries tend to update their views on procedural knowledge. Finally, we find that the combined information and feedback treatment has an effect on respondents' subjective knowledge, which we interpret as promising mechanisms for engaging and identifying with aid projects.

Key words: development aid, information campaign, fragile states, RCT

JEL classification: D8, D7

Acknowledgements: This article is part of a larger research project implemented in the context of a cooperation between the University of Osnabrück and KfW Development Bank, funded by the German Federal Ministry of Economic Cooperation and Development. We are grateful to KfW's partners in Mali (Agence Nationale d'Investissement des Collectivités Territoriales, GOPA Worldwide Consultants) for sharing information and supporting the preparation of the project. The data collection has been reviewed and approved by the Institutional Review Board (*Ethikkommission*) of the University of Osnabrück. See also the pre-analysis plan at <https://www.socialscisceregistry.org/trials/9818>.

This research study is released in connection with the [International Research Conference on the Effectiveness of Development Cooperation](#), jointly organized by UNU-WIDER, the Global Partnership for Effective Development Cooperation (GPEDC), and the European Commission (DG INTPA) on 17–18 November 2022 in Brussels, Belgium.

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This paper is published under the UNU-WIDER project [The state and statebuilding in the Global South – international and local interactions](#). Note that data collection for this paper has been funded solely by the KfW Development Bank and the German Federal Ministry of Economic Cooperation and Development. It is released in connection with the [International Research Conference on the Effectiveness of Development Cooperation](#), jointly organized by UNU-WIDER, the Global Partnership for Effective Development Cooperation (GPEDC), and the European Commission (DG INTPA) on 17–18 November 2022 in Brussels, Belgium.

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Information and requests: publications@wider.unu.edu

ISSN 1798-7237 ISBN 978-92-9267-365-9

<https://doi.org/10.35188/UNU-WIDER/2023/365-9>

Typescript prepared by Gary Smith.

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The Institute is funded through income from an endowment fund with additional contributions to its work programme from Finland and Sweden, as well as earmarked contributions for specific projects from a variety of donors.

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1 Introduction

Fragile and conflict-affected states receive almost two-thirds of the official development assistance (ODA) aimed at building institutions, constructing infrastructure, and improving basic public services (OECD 2020). However, several previous works show that the designated beneficiaries of these funds often know very little about the development programmes in their own communities (Anderson et al. 2012; Cleaver 1999; Schomerus 2022):

We regularly hear on the radio and television and read in the newspapers, that important amounts of assistance have been given to Mali. Communications go no further than these simple announcements. There is no explanation for how and where funds will be used. For the average citizen, they naturally wonder, ‘where has all this money gone?’. (Senior government official, Mali, cited in Anderson et al. 2012: 118)

This lack of transparency and information may impair the objectives of development interventions. In fragile and conflict-affected states, foreign aid is often supposed to serve a dual objective: (1) improving people’s access to basic services, including education, water, and health; and (2) strengthening state–society relations and social cohesion (Schomerus 2022; Waddington et al. 2019). Research has shown that the first objective is often achieved. However, the same projects also often fail to shape political and social attitudes towards the state (De Juan et al. 2022; Di Maro et al. 2021; Humphreys et al. 2019).

It seems evident that aid projects can affect people’s perceptions only when the beneficiaries are aware of these projects—for example, of the project type and location. Beneficiaries will only update their attitudes on state institutions if they know of the state’s responsibility for the project. People’s understanding of the procedures of project selection are also likely to shape their assessment of community benefit, inter-group fairness, and bureaucratic capacity.

In the light of these straightforward assumptions, the provision of information and the inclusion of people in needs assessments and planning is a central dimension of most development interventions. Larger interventions often include information campaigns featuring, for example, community-level workshop or short radio spots. Most governmental and non-governmental organizations place great emphasis on transparency and ownership, grounding their interventions on various measures of participatory planning and monitoring involving beneficiaries in the target communities (Cleaver 1999).

Despite these efforts, previous qualitative research shows that even direct beneficiaries and administrators of aid projects often know very little on aid projects in their communities. In their ‘Listening Project’, Anderson et al. (2012) have collected stories, experiences, and views from over 6,000 people across dozens of recipient countries. According to the authors, beneficiaries’ lack of information is a core problem in many aid interventions across the globe.

What explains this seeming contradiction between aid agencies’ transparency efforts and people’s lack of information? Information activities rely on basic assumptions on the interests and preferences of aid beneficiaries: people demand information on aid projects, they find this information sufficiently relevant to remember it, and they are willing to update their beliefs about aid projects based on the information provided to them. While these assumptions seem straightforward, one or more of them may simply be inaccurate.

This paper presents preliminary findings of a larger research project on the effects of aid information campaigns. We test the effects of two types of information interventions: the provision of information only and the combination of information with feedback opportunities. We embed these interventions in a panel survey in rural Mali. We investigate people’s awareness of aid projects in their vicinity,

their demand for information, and the effects of randomized information provision on three forms of knowledge: project-specific knowledge (type, location), procedural knowledge (processes of project selection), and subjective knowledge.¹

Our information intervention goes beyond short and generic informational primes investigated in previous studies (e.g., Acemoglu et al. 2020; Dunning et al. 2019; Jablonski et al. 2022). Our information treatment is highly customized to specific local aid projects in respondents' locations. We show that the content of the treatment corresponds to beneficiaries' actual information demands. We deliver parts of the treatment twice to foster memorization and processing. In the light of the low-information research context and the design of demand-oriented treatment, we would expect to find strong direct treatment effects on respondents' understanding and knowledge of aid projects in their vicinity.

Against this expectation, we find relatively weak and mixed effects of the information campaigns on knowledge.² The information treatment increased *project-specific knowledge* but did not change people's perceptions of the processes of project selection. Only people with favourable ex-ante views of processes of project selection and those that do not benefit from aid projects tend to update their views on how projects are being selected (*procedural knowledge*). Finally, we show that the information and feedback treatment—but not the information-only treatment—has significantly increased *subjective knowledge* about development. We discuss the implications of our findings for future research and point to concrete policy recommendations for practitioners.

2 The impact of information provision

Several recent studies have examined if and how information can influence citizens' political behaviour, in particular turnout, vote choice, and political trust. This is a fairly young but growing literature. We structure this literature according to two approaches to provide information: (1) the provision of information on the relative performance of government institutions (e.g. in terms of basic service delivery or corruption); and (2) the provision of factual information about development programmes, including the funding and implementing agency and the name of the programme.

The first research strands builds on the 'Western' public administration literature, focusing on the impact of providing information on government performance regarding public services on a range of outcomes, including vote choice, turnout, and political trust (e.g. James and Moseley 2014). While some studies find evidence of the expected effects of information (e.g., Acemoglu et al. 2020; Alessandro et al. 2021; Buntaine et al. 2018), many others cast doubt on the assumption that information on government performance influences people's perceptions (see the meta review by Dunning et al. 2019).

The second research strand investigates the impact of factual information as compared to performance primes. For instance, Nussio et al. (2020) provide information on a social infrastructure programme in Colombia via text messages. They find positive effects on satisfaction with services and trust in governmental institutions among those who are politically interested. Bezzola et al. (2022) test how information about the sources of funding (state vs mining company) for basic service provision in Burkina Faso affects people's attitudes. They find that the mining company version of the treatment worsened people's perceptions of the state's legitimacy. Moreover, they are one of the few who present manipu-

¹ The experimental and treatment design, sampling, and data collection have been preregistered; the outcome measures and heterogeneity analyses in this research note are exploratory.

² One potential explanation for weak effects are spillover effects from treatment to control group. We tested this possibility using reported chatting networks among respondents but find no evidence that having chatting partners in the treatment group affects knowledge.

lation checks and show that the majority of the sample remembers the funding source—state vs mining company—correctly.

Taken together, research across these two strands provides important insights into the role of citizens' information on state services. However, while all of these studies report the impact of their information treatments on various behavioural and/or attitudinal outcomes, almost none show the more proximate treatment effects.³ To what extent do people actually remember the information provided to them?

This research note focuses on these relatively basic aspects of information provision that are mostly glanced over by existing studies. What do people know prior to an intervention? What are their information preferences? Does information provision improve knowledge?

3 Study context: Mali and the PACT

Before turning to our experimental design, data, and findings, we briefly describe the study context. Our study focuses on the fourth phase of Mali's *Programme d'Appui aux Collectivités Territoriales (PACT)*. The PACT is funded by the German KfW Development Bank on behalf of the German Federal Government to support local public service delivery and local governance in Mali through financial contributions to a state-based communal investment fund.

The available funding is allocated to municipalities ('Communes') based on a set of predefined needs and performance criteria (e.g., population size, poverty rates). Local institutions (i.e. mayors and village councils) then prioritize and select local development projects to be implemented with the available funds. In identifying project priorities, they are supposed to draw on local development plans that should have been prepared with the active participation of the local population.

Municipal institutions prepare and submit funding proposals—for example, for extending education, health, and water services—to the managing national-level institutions that evaluate the proposals' financial viability and technical feasibility. Upon approval, municipalities implement the projects, while the national-level institutions are in charge of financial and technical controls.

4 Experimental design

We embed our information campaign experiment in a panel survey implemented in the vicinity of 20 individual PACT infrastructure projects (see Section 5). We assign respondents randomly to one of three treatment conditions at baseline and keep their treatment status throughout a three-wave survey.⁴ We decided to assign the treatment at the respondent level—as opposed to the community level—to increase statistical power.⁵

³ An exception is Alessandro et al. (2021), who document that people in the control group report that the government does not inform them.

⁴ Figure A1 shows that respondents' characteristics are balanced across treatment conditions.

⁵ More details about power calculations and the increased risk of spill-over effects are described in the pre-analysis plan, available at <https://www.socialscisceregistry.org/trials/9818>.

4.1 Treatment 1: information only

In this condition, participants receive information about a PACT project in their commune. The information highlights key aspects of the project selection process (funding allocation formula, project selection, responsibilities) and project characteristics (type, cost, starting date, expected duration). The information is customized to the specific aid project in the commune, with the help of government partners in Mali. The information is presented in a question-and-answer format for three reasons: to break the information into smaller, more digestible pieces; to increase the participant's attention to certain project characteristics before the information is presented; and to assess participants' prior knowledge about the project through their answers.

4.2 Treatment 2: information and feedback

Respondents get the complete information treatment 1 and can provide feedback in the second wave, expanding the unidirectional treatment 1 to a bidirectional conversation. The inclusion of a feedback step aims at signalling to respondents that their views are taken seriously. Respondents are—truthfully—told that their comments will be summarized and provided to the Governments of Mali and Germany and assured that no reference to their identity or commune would be made. The feedback opportunity is announced in wave 1 and respondents can share their views on the project selection mechanism, project type, or any other information in wave 2.

4.3 Placebo control

In waves 1 and 2 respondents in the placebo control condition receive the same introductory message to the treatment section and are asked to evaluate the same statements related to the aid project as described in Section 4.1. However, they do not receive any specific project information in response to these questions. Note that the introductory message includes the name of the village where the project takes place. We include this basic information in the control condition to make sure that treatment and control groups do not differ in the general awareness of the project but only in terms of the information provided by us. The implication of this choice might be that in contrast to an 'empty' control group, our placebo information design results in lower, albeit purer, information effects.

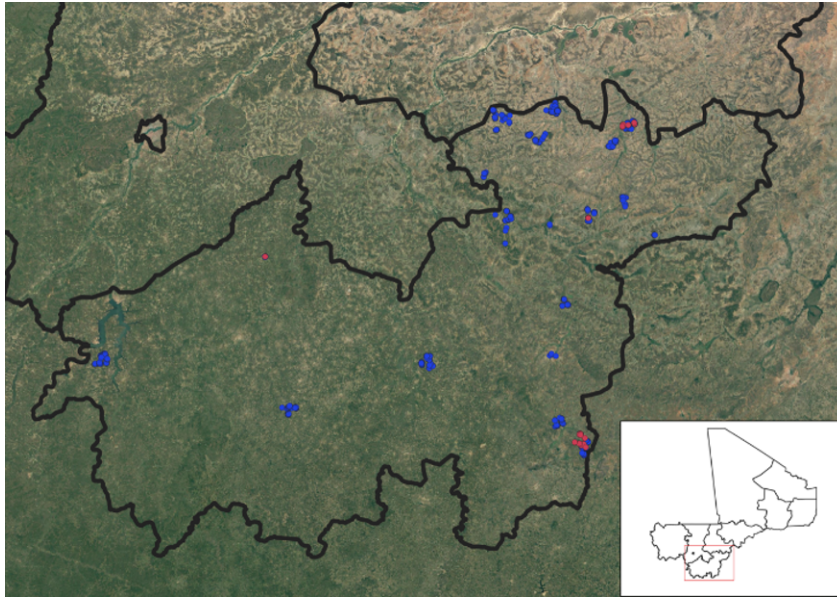
5 Data

Our two-wave panel survey (a third wave is currently being collected) focuses on 20 administrative units ('communes', administrative level 3) in Sikasso *région* receiving funding from the PACT programme (see Section 3). We include communes that planned/implemented PACT infrastructure projects in education, water, or health. For each commune, we select the aid project village itself as well as all surrounding villages that are located within 6.5 km. Sampling aid villages and surrounding villages ensures a certain variation in the extent to which respondents actually benefit from aid projects. Figure 1 shows the survey locations in Sikasso *région*.

Wave 1 was implemented as a face-to-face survey through computer-assisted personal interviews (CAPI). Wave 1 serves four central objectives. First, it serves to draw the sample of respondents for both survey waves in and around the 20 aid project villages. We collect phone numbers from 5,400 respondent in order to recontact them in wave 2. This initial construction of the within-village sample and the collection of phone numbers is also the primary reason for implementing the first wave face-to-face rather than via mobile phone, as in wave 2. Second, wave 1 collects pre-treatment socio-demographic background data, data on people's information needs, and respondents' prior knowledge on aid projects in their vicinity. It also collects data on perceived rule adherence of local institutions. Third, respondents are randomly

assigned to one of the three treatment conditions and given the respective component of the treatment (information and announcement of feedback opportunity in wave 2).

Figure 1: Survey locations



Source: authors' compilation.

The second wave of data collection was implemented via telephone through computer-assisted telephone interviews (CATI) using telephone numbers collected in wave 1. In the second wave, we draw on the sample from the first wave. In total, we randomly select 3,549 respondents from the wave 1 sampling frame, making sure that the proportions across key dimensions (aid project villages vs surrounding villages, treatment status, gender) remain balanced. We chose this strategy as we expected high dropout when recontacting participants over the phone. Participants that are younger, female, have lived in the village longer, and have fewer chatting partners are less likely to be recontacted. These differences are very small, however. More importantly, no characteristics significantly predict attrition in any of the treated groups.⁶

6 Demand for information and state of information

We begin by exploring respondents' demand for information and their baseline knowledge on the PACT projects. In the first survey wave (pre-treatment) we asked respondents to indicate their information priorities: 'Imagine a development project is planned in the village of [actual village name]. Which type of information about the project would be the most relevant for you?'. We have coded the most frequent terms included in respondents' open-text answers.⁷ The left-hand panel of Figure 2 shows the share of respondents that mentioned various projects characteristics. The respondents expressed the strongest interest in the costs and the duration of project implementation, followed by the modes of project selection and its objectives and rationale.

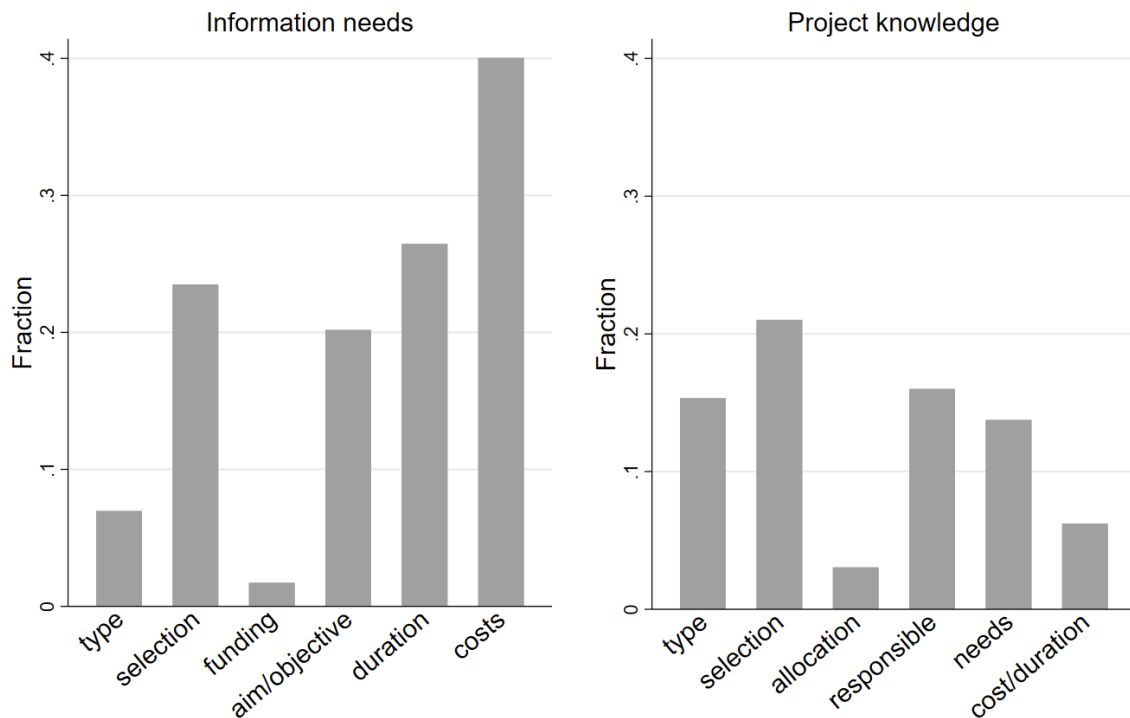
We contrast these information priorities with respondents' factual project knowledge. After having mentioned that a PACT project was being implemented in a certain village in respondents' commune, we

⁶ One exception: older participants in treatment 2 are more likely to not be present in round 2 (+1 year = +0.4 per cent chance of attrition).

⁷ We have used the Stata text-mining tool ngram (Schonlau et al. 2017) to identify the most frequently mentioned terms.

asked them if they had been aware of this project. We find that only 32 per cent of the respondents had. We then confronted respondents with a battery of correct and incorrect statements about the specific PACT project in their communes. We consider a respondent to be ‘correct’ if she agrees with statements reflecting the actual (formal) properties of the projects *and* if she disagreed with statements that deviate from the ‘true’ properties. Importantly, this combined measure improves our ability to differentiate actual knowledge from systematic response patterns (i.e. acquiescence bias) and random guessing.

Figure 2: Information needs and knowledge



Note: the left-hand panel shows what fraction of participants mentioned specific information needs on development projects, based on a simple count of words in open-text answers. The right-hand panel shows what percentage of participants had correct pre-treatment knowledge (both thinking the correct statement is true and the incorrect statement is false) on several items.

Source: authors' compilation.

In the right-hand panel of Figure 2 we present respondents' actual knowledge about factual properties of the respective PACT projects. Only 15 per cent are aware that the Government of Mali and international donors are *responsible* for the PACT. A similar share can indicate the correct project *type* (social or economic infrastructure). Only around 5 per cent get the *costs* and *duration* right (above or below the indicated amounts and months). Less than 1 per cent of all respondents are correct with respect to all three project properties.

We now turn from project-specific properties to the process of project selection (also in the right-hand panel of Figure 2). Contrary to factual project characteristics, responses to process-related statements are more likely to indicate a combination of project knowledge and prior beliefs about the bureaucratic functioning of the state. For example, a respondent may factually know that mayors and councils are formally in charge of selecting PACT projects ('correct' statement), but still believe that the most influential individuals and families actually determine project selection ('incorrect' statement).

Around 20 per cent identify the 'correct' formal PACT rules of project *selection*—meaning that 80 per cent of the respondents are either unaware of these rules or do not believe them to be factually followed. Discrepancies between PACT rules and interviewees' responses are even more pronounced

when it comes to the *allocation* of PACT budgets across communes (mathematical formula vs political connections) as well as to the process of identification of their communes' development *needs* (the people of the commune vs international donors).

Overall, these descriptive patterns reflect the findings of previous qualitative studies: we observe a substantial gap between people's information needs and their actual state of knowledge. It is easy to see how these patterns may undermine the expected project effects on more distal political and social attitudes: lack of awareness of projects and project properties undermines beneficiaries' expected positive appraisals of development progress. Lack of understanding of and/or trust in rules of distribution increase the risk that people feel treated unfairly. Moreover, with such an information deficit, citizens have very limited opportunities to obtain information from local state bureaucracies, monitor progress, and put in motion an accountability relationship between the local state and its citizens.

We also examine what determines variation in respondents' knowledge prior to any information treatment (see Figure A2 in the Appendix). We look at three dimensions of prior knowledge: (1) general awareness of the project; (2) knowledge of project-specific information; and (3) knowledge related to processes of funding allocations, project selection, and decision-making. The analysis generates three noteworthy insights. First, the three types of knowledge seem to be determined by different sets of factors. Second, most of the predictors we considered are uncorrelated or only weakly correlated with respondents' prior knowledge—indicating a certain randomness. Third, if there is any consistent pattern, then it is that the more marginalized population groups tend to know less about aid projects: those that do not expect to benefit from the aid project (18 per cent less likely to be aware, 10 per cent less likely to be aware of the process), women (10–15 per cent less likely to know about the type of project and process), respondents with lower levels of education (5 per cent less likely to know about the type and process), and those that are more food insecure. These descriptive insights provide important observations for information campaigns in general: common approaches to information campaigns, needs assessments, and participatory planning may fall short in including these marginalized groups unless significant outreach efforts are taken.

7 Effects of information provision

Next, we assess the effect of our information treatments on people's (1) project-specific knowledge, (2) procedural knowledge, and (3) subjective knowledge on development activities in their commune.

We rely on four survey items from wave 2. First, we asked respondents to name the village in which the PACT project has been implemented ('Can you tell us the name of the village in which the project has been implemented?'). Remember that we informed all respondents (control and treatment) about the village name. Thus, any differences across treatment groups is more likely to be related to motivation to retain this information rather to access it. Second, we ask respondents to name the type of project ('And can you tell us what has been constructed in this project?'). Third, we asked respondents about the process of project selection ('And can you tell me who has been in charge of selecting the beneficiary village and type of PACT project?'). We delivered these three items as open-text questions to make this 'knowledge test' more demanding. In addition, we also probed participants' subjective knowledge by asking them to indicate their agreement with the following statement: 'You have a pretty good understanding of the most important development issues and projects in your commune.' (Score 1–10, standardized).⁸

⁸ This question came after the repeated information provision in wave 2 and is thus affected by two rounds of information provision.

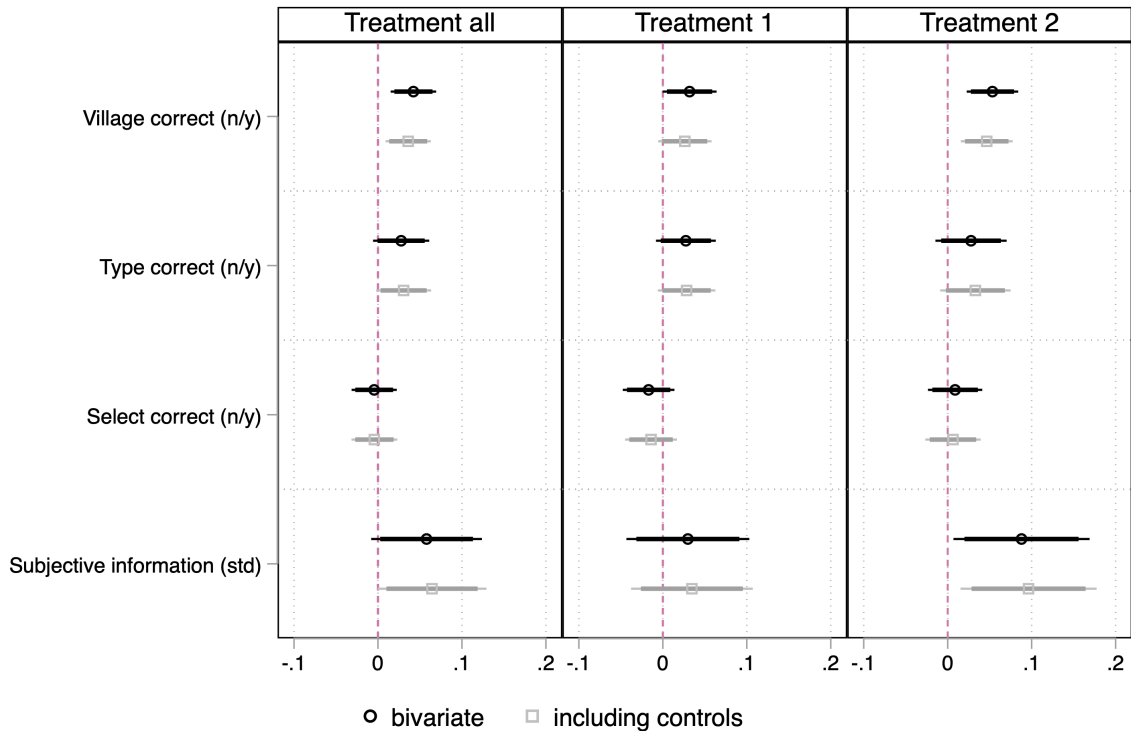
We use a linear model with the following specification to estimate the intention-to-treat (ITT) effect of our information treatment:

$$Y_{iv} = \alpha + \beta_1 T_i + \mu_x \mathbb{X}_i + \varepsilon_{it} \quad (1)$$

where Y_{iv} is one of our outcomes of interest—project-related knowledge and subjective perception of being informed—of individual i in village v . T_i is the individual-level treatment status assigned in wave 1, \mathbb{X}_i is a vector of individual-level pre-treatment covariates and commune fixed effects, and ε_{it} is the normally distributed error term. Standard errors are clustered at the village level. As pre-treatment covariates we include gender, age, education level dummies, number of children below 16 in the household, a food security score, formal employment, and migrant status.

We present the results of these models in Figure 3. Project-specific knowledge increases across the board for both information treatments: 5 per cent increase in knowing the correct village where treatment took place (up from 75 per cent in the control group). Knowing the correct type of project increases by 3 per cent (38 per cent knew this in the control group). We find no effect of the treatments on procedural knowledge or what we can term process legitimacy (80 per cent in the control group got this question right). We find that respondents do not update their subjective knowledge after being provided with information only. Only when they are also empowered to give feedback on the project do they consider themselves more knowledgeable (by 0.1 standard deviations, which is equivalent to participants knowing about the existence of two more development projects in their village prior to any knowledge provision by us).

Figure 3: Treatment effects on knowledge



Note: the figure shows coefficients of a regression comparing treatment groups to control. Standard errors are clustered at the village level. Lines show 90 and 95 per cent confidence intervals. Each coefficient is a separate regression.

Source: authors' compilation.

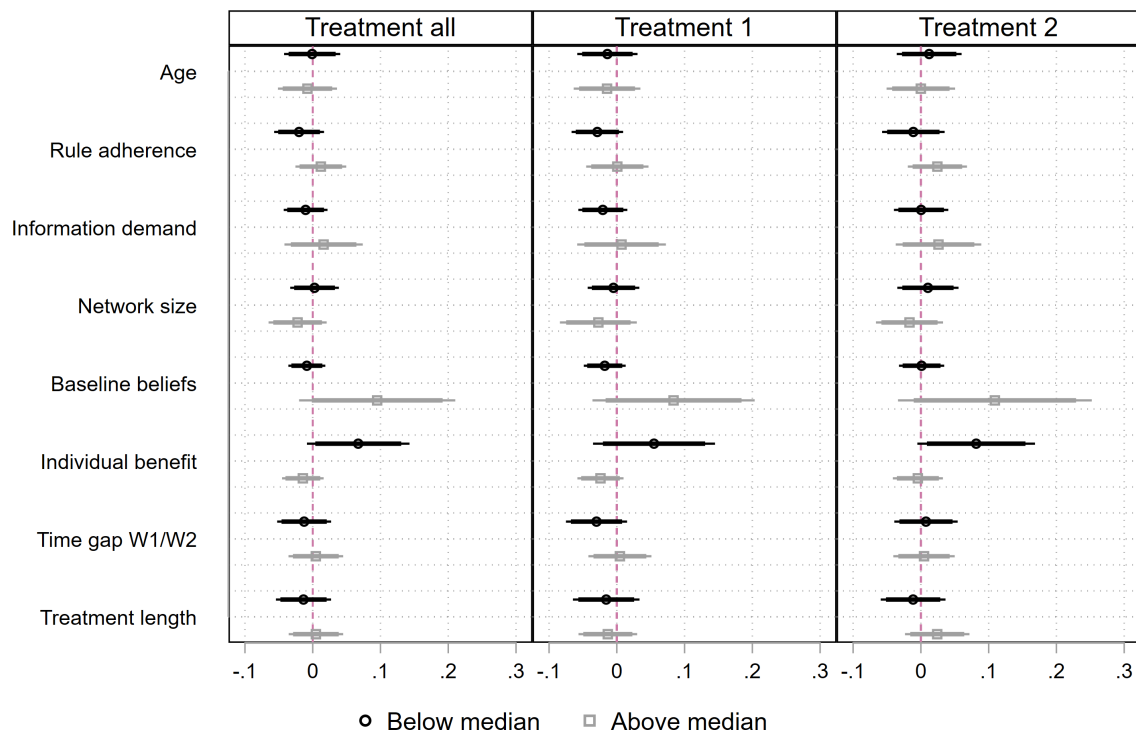
These findings demonstrate that simple information measures improve people's project-specific knowledge (i.e. village and type). However, the effects of unidirectional *information-only* interventions are relatively small. Interestingly, subjective knowledge rises only in the information and feedback condition (treatment 2). This highlights the importance of providing opportunities for feedback. Subjective

knowledge is related to self-efficacy and confidence in one's understanding and abilities. These qualities could be important antecedents for people's engagement with projects and their ability to participate in local development politics.

While our information treatment seems to have affected people's knowledge of factual project properties as well as their subjective knowledge, we see consistent null-effects on their assessment of the processes of project selection. We consider this an important, unfortunate, but also plausible finding. People may have strong ex-ante beliefs about how projects are being selected and to what extent these processes really correspond to formal rules of selection. Information measures may be ineffective when their content clashes with these prior beliefs—that is, information about formal rules of project selection may not lead to updating if respondents' own observations and experiences conflict with this information.

In order to get a better understanding of the null-effect of our information treatments on perceptions of selection processes, we assess whether this effect is conditional on other variables. In Figure 4 we show interaction effects on a selected number of potential moderators. To ease the presentation of the results, we have dichotomized the moderators (median split) and show average marginal effects of our information treatment below and above the median of the respective moderator.

Figure 4: Heterogeneous treatment effects on *select correct*



Note: the figure shows treatment effects on *select correct* (second line in Figure 3) conditional on selected median-split moderators. Each set of coefficients is a separate regression. Standard errors are clustered at the village level. Lines show 90 per cent and 95 per cent confidence intervals.

Source: authors' compilation.

For most variables we see little evidence of heterogeneous treatment effects. However, in line with the idea presented above, we see some suggestive evidence that treatment effects may be more pronounced when people's baseline (pre-treatment) beliefs about the project selection process do not clash with the content of the information treatment. The marginal effects are substantively strong (10 per cent more likely to be correct) when people expressed more confidence in the statement that mayors and councils are responsible for project selection than with the statement that influential individuals and families are in charge of selecting the projects. The estimated marginal effects are not statistically significant at

conventional levels, but not far from it. This (weak) pattern indicates that information measures may have the potential to reinforce prior beliefs but may be ineffective in convincing people to change their mind about issues/processes on which they hold strong and adverse opinions upfront.

In addition, Figure 4 also indicates that treatment effects are more pronounced for respondents who expect less benefit from the respective aid projects.⁹ We can only speculate about this seeming heterogeneity. Figure A2 shows that expected benefit is the strongest predictor of prior knowledge. Thus, it seems plausible that respondents in the ‘high benefit’ group already have a better understanding and/or stronger beliefs about the project selection process, leaving less potential room for belief updating. If confirmed in further analysis, this finding would also indicate the potential of targeting non-beneficiary groups in information campaigns—with the aim of countering perceptions of opaque and unfair aid provision.

8 Conclusion

This paper has explored some common assumptions regarding people’s knowledge about aid projects and their information preferences. Most importantly, we examined the extent to which people update their knowledge on aid projects over approximately two months. These questions are at the core of a growing literature on information and accountability in developing countries (e.g., Acemoglu et al. 2020; Dunning et al. 2019; Jablonski et al. 2022; Nussio et al. 2020). We emphasize three main findings and their implications for future research and policy.

First, we find surprisingly small effects of highly customized information provision on people’s knowledge of aid projects in their vicinity. People generally have little prior knowledge of ongoing development projects. In this context of information deficits, we tested two versions of an information campaign on local aid projects. The information we provided was demand-oriented and directly resonated with reported information needs prior to the intervention. The information was also highly customized based on information from the Government of Mali. Taking these conditions together, we assumed this context to be an ‘easy case’ to find evidence that people update their knowledge in response to our information campaigns. However, overall, we find only relatively small and heterogeneous effects on knowledge. These sobering effects on a proximate outcome (almost a manipulation check) in an ‘easy case’ like ours questions the validity of some assumptions in research on information experiments on distant outcomes, including vote choice, turnout, and political trust (Dunning et al. 2019; Nussio et al. 2020). We therefore believe more research should be done—in the context of information experiments—to understand how information is processed, understood, and updated before turning to more distal outcomes.

Second, despite the overall sobering effects, there are interesting take-aways from our analyses. We differentiated between project-specific, procedural, and subjective knowledge. We find that the information treatments improved project-specific knowledge. These effects are modest but noteworthy considering the treatment information was shared approximately two months prior to the outcome measurement. However, we find no treatment effect on procedural knowledge. Based on auxiliary analyses, we find that this effect is substantively large only among respondents (1) who held strong attitudes about the state’s rule adherence prior to treatment, and (2) those less likely to benefit from the respective aid project. Both factors have important implications. For one, it does not seem plausible to change people’s perceptions of bureaucratic processes and the state’s rule adherence by informing them about the formal rules when people experience or perceive the opposite on the ground. Simple information may

⁹ We measured anticipated benefit pre-treatment without providing any information on the respective aid project. We asked respondents to what extent they would benefit from an aid project in water, education, and health in the actual project village. For each respondent, we then use their expected benefit from a project in the actual sector of the PACT project.

even reinforce but not change prior beliefs. Moreover, non-beneficiaries are an important but completely under-rated target group for information campaigns to strengthen the procedural legitimacy of aid-funded public services.

Third, an important finding concerns subjectively perceived knowledge about development projects. We find effects of information on subjective knowledge for the combined *information and feedback* but not the *information-only* condition. This suggests that the opportunity to provide feedback to the state adds an important dimension to common unidirectional information-only campaigns. Put differently, a feedback opportunity appears to promote a subjective sense of efficacy. Self-efficacy can serve as an important mechanism to feel a sense of ownership, capacity, and preparedness to participate in local development processes and politics. This may include in particular engagement with aid projects and more capacity to interact with local state institutions. In the light of our findings and the mixed results in prior research, we expect that attitudinal and behavioural changes are most likely to take place within communities (in-group), and less likely towards more distant out-group communities, or the state. Our ongoing data collection for wave 3 in Mali will soon provide us with more insights on these downstream outcomes related to behavioural change.

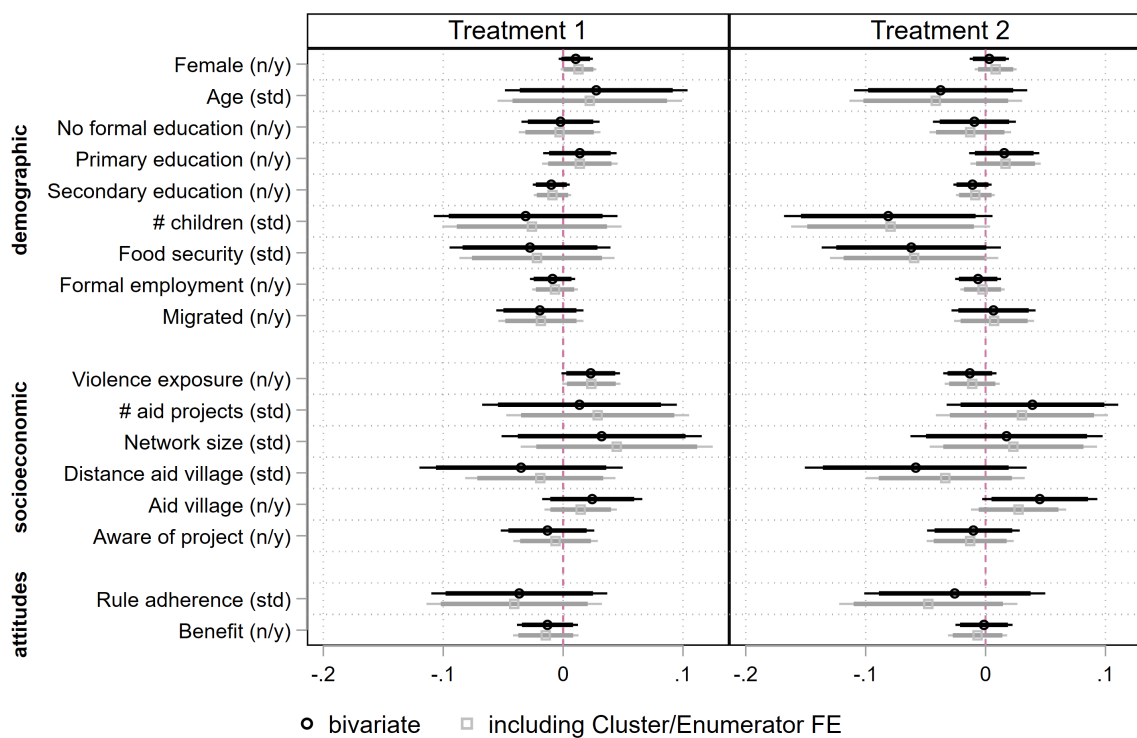
References

- Acemoglu, D., A. Cheema, A.I. Khwaja, and J.A. Robinson (2020). ‘Trust in State and Nonstate Actors: Evidence from Dispute Resolution in Pakistan’. *Journal of Political Economy*, 128(8): 3090–147. <https://doi.org/10.1086/707765>
- Alessandro, M., B. Cardinale Lagomarsino, C. Scartascini, J. Streb, and J. Torrealday (2021). ‘Transparency and Trust in Government: Evidence from a Survey Experiment’. *World Development*, 138: 105223. <https://doi.org/10.1016/j.worlddev.2020.105223>
- Anderson, M.B., D. Brown, and I. Jean (2012). *Time to Listen: Hearing People on the Receiving End of International Aid*. Cambridge, MA: CDA Collaborative Learning Projects.
- Bezzola, S., F. Brugger, I. Günther, and D. Sebhatsu (2022). ‘Do Social Investments by Mining Companies Harm Citizen–State Relations? Experimental Evidence from Burkina Faso’. *Journal of Development Studies*, 58(3): 417–35. <https://doi.org/10.1080/00220388.2021.1983166>
- Buntaine, M.T., R. Jablonski, D.L. Nielson, and P.M. Pickering (2018). ‘SMS Texts on Corruption Help Ugandan Voters Hold Elected Councillors Accountable at the Polls’. *Proceedings of the National Academy of Sciences*, 115(26): 6668–73. <https://doi.org/10.1073/pnas.1722306115>
- Cleaver, F. (1999). ‘Paradoxes of Participation: Questioning Participatory Approaches to Development’. *Journal of International Development: The Journal of the Development Studies Association*, 11(4): 597–612. [https://doi.org/10.1002/\(SICI\)1099-1328\(199906\)11:4<597::AID-JID610>3.0.CO;2-Q](https://doi.org/10.1002/(SICI)1099-1328(199906)11:4<597::AID-JID610>3.0.CO;2-Q)
- De Juan, A., C. Koos, M. Pellicer, and E. Wegner (2022). ‘Can Reconstruction Programmes Improve Political Perceptions in Conflict Contexts? Evidence from Eastern Democratic Republic of the Congo’. *South African Journal of Economics*, 90(4): 427–55. <https://doi.org/10.1111/saje.12330>
- Di Maro, V., D.K. Evans, S. Khemani, and T. Scot (2021). ‘Building State Capacity: What Is the Impact of Development Projects?’. Working Paper. Washington, DC: World Bank. <https://doi.org/10.1596/1813-9450-9875>
- Dunning, T., G. Grossman, M. Humphreys, S.D. Hyde, C. McIntosh, G. Nellis, C.L. Adida, E. Arias, C. Bicalho, T.C. Boas, M.T. Buntaine, S. Chauchard, A. Chowdhury, J. Gottlieb, F.D. Hidalgo, M. Holmlund, R. Jablonski, E. Kramon, H. Larreguy, M. Lierl, J. Marshall, G. McClendon, M.A. Melo, D.L. Nielson, P.M. Pickering, M.R. Platas, P. Querubín, P. Raffler, and N. Sircar (2019). ‘Voter Information Campaigns and Political Accountability: Cumulative Findings from a Preregistered Meta-Analysis of Coordinated Trials’. *Science Advances*, 5(7): eaaw2612. <https://doi.org/10.1126/sciadv.aaw2612>

- Humphreys, M., R. Sánchez de la Sierra, and P. Van der Windt (2019). ‘Exporting Democratic Practices: Evidence from a Village Governance Intervention in Eastern Congo’. *Journal of Development Economics*, 140: 279–301. <https://doi.org/10.1016/j.jdeveco.2019.03.011>
- Jablonski, R.S., M.T. Buntaine, D.L. Nielson, and P.M. Pickering (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): 346–358. <https://doi.org/10.1017/XPS.2021.15>
- James, O., and A. Moseley (2014). ‘Does Performance Information About Public Services Affect Citizens’ Perceptions, Satisfaction, and Voice Behaviour? Field Experiments with Absolute and Relative Performance Information’. *Public Administration*, 92(2): 493–511. <https://doi.org/10.1111/padm.12066>
- Nussio, E., M. García-Sánchez, B. Oppenheim, and S. Pantoja-Barrios (2020). ‘Testing Statebuilding’s “Missing Link”: Effects of Government Communications in Colombia’. *Journal of Development Studies*, 56(3): 509–26. <https://doi.org/10.1080/00220388.2019.1585815>
- OECD (2020). *States of Fragility and Official Development Assistance*. Paris: OECD.
- Schomerus, M. (2022). *Lives Amid Violence: Transforming Development in the Wake of Conflict*. London: Bloomsbury Publishing. <https://doi.org/10.5040/9780755640867>
- Schonlau, M., N. Guenther, and I. Sucholutsky (2017). ‘Text Mining with N-Gram Variables’. *The Stata Journal*, 17(4): 866–81. <https://doi.org/10.1177/1536867X1801700406>
- Waddington, H., A. Sonnenfeld, J. Finetti, M. Gaarder, and J. Stevenson (2019). ‘Does Incorporating Participation and Accountability Improve Development Outcomes? Meta-Analysis and Framework Synthesis’. Report. Washington, DC: International Initiative for Impact Evaluation (3ie). <https://doi.org/10.23846/SR00043>

A1 Treatment balance

Figure A1: Treatment balance

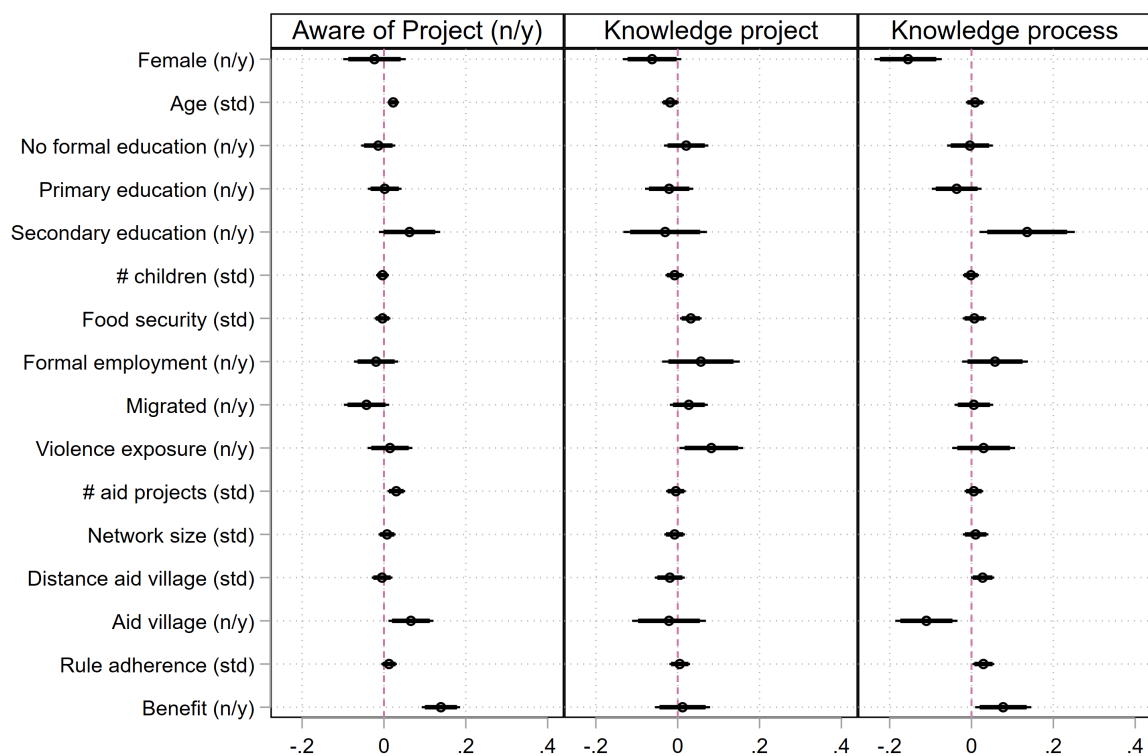


Note: the figure shows coefficients of a regression comparing treatment groups to control. Standard errors are clustered at the village level. Lines show 90 per cent and 95 per cent confidence intervals.

Source: authors' compilation.

A2 Determinants of knowledge

Figure A2: Initial knowledge determinants



Note: coefficients show effects of characteristics on awareness of the project, having correct knowledge on the project (=1) and correct knowledge on the process (=1). Each coefficient is a separate regression. Standard errors are clustered at the village level. Lines show 90 per cent and 95 per cent confidence intervals.

Source: authors' compilation based on data.