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Direct Democracy and Resource Allocation

Experimental Evidence from Afghanistan

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Abstract

Direct democracy is designed to better align public resource allocation decisions with citizen preferences. Using a randomized field experiment in 250 villages across Afghanistan, this paper compares outcomes of secret-ballot referenda with those of consultation meetings, which adhere to customary decision-making practices. Elites are found to exert influence over meeting outcomes, but not over referenda outcomes, which are driven primarily by citizen preferences. Referenda are also found to improve public satisfaction, whereas elite domination of allocation processes has a negative effect. The results indicate that the use of direct democracy in public resource allocation results in more legitimate outcomes than those produced by customary processes.

Direct Democracy and Resource Allocation:
Experimental Evidence from Afghanistan[1]

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I. Introduction

Directly democratic decision-making procedures are presumed to reduce elite capture of public resources (Matsusaka 2004, 2005) and enhance the legitimacy of public allocation processes (Olken 2010; Lind and Tyler 1988). As decentralization efforts in developing countries are often undermined by public dissatisfaction arising from the diversion of public resources by incumbent elites (Bardhan 2002, Bardhan and Mookherjee 2006), the use of direct democracy in local public resource allocation could potentially improve the quality of local governance and enhance political legitimacy. To date, however, only one study (Olken 2010) has experimentally explored the effects of direct democracy on local public resource allocation and found that, although direct democracy increases citizen satisfaction with allocation processes, it has limited effects on allocation outcomes *per se*.

This study identifies the effect of direct democracy on resource allocation outcomes and public satisfaction using a field experiment conducted in 250 villages across Afghanistan. Half of the villages were randomly assigned to select local development projects by secret-ballot referenda, with the remainder assigned to select projects at village meetings convened by elected village councils. The referendum procedure gave villagers the opportunity to vote for their preferred project, with funding allocated to the projects with the most votes. The meeting procedure – which aligns with customary practices of local decision-making in Afghanistan – stipulated that proposed projects should be discussed at a public meeting, with the village council exercising the final decision on project selection. Both procedures employed an identical agenda-setting method, whereby the list of proposed projects was compiled by the village council after consultations with other villagers.

In order to isolate the effect of direct democracy on allocation outcomes and, specifically, on the relative ability of elites and non-elites to realize their preferences, we compare such outcomes with the *ex-ante* preferences of three groups of villagers: male villagers; male elites; and female elites. Under both referenda and village meetings, male villagers' preferences are found to be a significant determinant of selection outcomes. The preferences of male and female elites, however, only matter when selection occurs through a village meeting. Thus, we find that direct democracy limits elite capture of resource allocation.

We also assess the effect of direct democracy on political legitimacy using data on villagers' satisfaction with local governance and the local economy. As in Olken (2010), referenda are found

to increase villagers' satisfaction, even after controlling for the type of selected project. At the same time, satisfaction is also affected by selection outcomes *per se*, with lower levels of satisfaction in instances where selected projects were preferred by elites and higher levels in cases where selected projects were preferred by villagers. The results thus indicate that direct democracy increases satisfaction both as a result of the process itself as well as by better aligning allocation outcomes with public preferences.

Our study contributes to the literature on the effects of political decision rules, in general, and direct democracy, in particular. Works on direct democracy have examined its effect on the size of government (Matsusaka 1995, Funk and Gathmann 2011), political participation and redistributive spending (Hinnerich and Pettersson-Lidbom 2010), and happiness (Frey and Stutzer 2005). The analysis in this paper is most closely related to Olken (2010), who compares similar variations in project selection procedures using a field experiment in Indonesia and finds that direct democracy causes women's projects to be located in poorer areas, but does not affect the choice of general project. Olken (2010), however, finds a strong positive effect of direct democracy on villagers' satisfaction.

In principle, elite influence over the choice of projects is not necessarily related with outcomes that make ordinary villagers worse off. The difference in elite preferences versus those of the general public may reflect not only relative benefits, but also an informational advantage of the elite in assessing which projects will bring more benefits to the village (Labonne & Chase 2009; Rao and Ibanez 2005; Owen and van Domelen 1998). However, the finding that elite influence over allocation of resources has a negative effect on villagers' perceptions of local governance is not consistent with a benign interpretation of elite control over resources but rather suggestive of elite capture. These results thereby demonstrate that direct democracy improves outcomes for villagers relative to customary practices of decision-making.

This paper is divided into six sections: Section II describes the setting in which the experiment occurred; Section III describes the design of the experiment, sample, and data collection; Section IV presents the methodology and results of the empirical analysis; Section V discusses the results; and Section VI concludes.

II.   Setting

The field experiment described in this paper was undertaken in coordination with the National Solidarity Program (NSP), a nationwide community-driven development program executed by the Government of Afghanistan.[2] The following sections provide further details on NSP (II.1) and structures for local governance and decision-making in rural Afghanistan (II.2), both of which present essential context for the study.

II.1.   National Solidarity Program

NSP was devised in 2002 by the Government of Afghanistan to deliver services and infrastructure to the rural population and build representative institutions for village governance. NSP has now been implemented in over 29,000 villages in all of Afghanistan's 34 province districts at a cost of over $1.2 billion, making it the largest development program in Afghanistan. The program is structured around two interventions: (i) the creation of a Community Development Council (CDC); and (ii) the disbursement of block grants to CDCs for implementation of village projects. Although NSP is executed by the Government of Afghanistan, the program is implemented by 8 national and 21 international NGOs.

In order to facilitate the creation of representative institutions for village governance, NSP mandates the creation of a gender-balanced CDC through a secret-ballot, universal suffrage election. Once CDCs are formed, NSP disburses block grants valued at $200 per household – up to a village maximum of $60,000 – to fund village projects[3] and requires communities to contribute no less than 10 percent of the total cost of the projects, which they largely do in the form of labor. Projects are selected by the CDC in consultation with the village community. Selected projects are ordinarily focused on either the construction or rehabilitation of village infrastructure, such as drinking water facilities, irrigation canals, roads and bridges, or electrical generators; or the provision of human capital development, such as training and literacy courses.

NSP implementation in a single village can take up to three years. Introducing the concept of NSP to villages and organizing village council elections takes a few months. Following the creation of the village council, an average of twelve months elapses before project implementation starts, as village

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[2] This study is part of a large-scale randomized impact evaluation of NSP that involved randomized assignment of not only project selection procedures, but also of the program itself (Beath, Christia, and Enikolopov 2011), as well as council election methods (Beath, Christia, and Enikolopov, 2012).
[3] The average block grant in the villages included in the sample was roughly $30,000.

councils and the village community select and design projects, submit proposals to the NSP office, receive funds, and, if necessary, procure contractors for project construction. Once construction commences, it takes up to nine months for projects to become operational, although the timeline varies significantly based on the type of project. The number of projects implemented per village can also vary. Multiple projects may be implemented simultaneously or sequentially, meaning that there is substantial variation between villages in the time it takes to complete program implementation.

II.2. Local Governance and Public Decision-Making in Rural Afghanistan

The lack of state consolidation in Afghanistan and the country's recent history of violent conflict have resulted into a weak central government which has lacked the resources to exercise control in many parts of the countryside (Barfield, 1984). Rural communities have thus developed sophisticated – albeit informal – customary local governance structures and practices to administer justice, set community rules, and provide local public goods (Shahrani, 1998; Pain and Kantor, 2010). Although such structures and practices have been subjected to attempted reorganization and politicization by various regimes over the past few decades (Nojumi, Mazurana, and Stites, 2004; Rahmani, 2006), customary local governance structures and practices are generally considered to have endured and remain pre-eminent (Brick, 2008; Kakar, 2005).

Across Afghanistan, the most ubiquitous local governance institution is that of the *jirga* (a Pashto word meaning 'circle', reflecting the equality of participants in the process [Rubin, 2005]) or *shura* (an Arabic term for 'council' used in non-Pashtun areas), which is an assembly of tribal elders or other notables to discuss a matter of shared import (Kakar, 2005). The legitimacy of the institution is, in part, religious, with the Holy Qu'ran commanding believers to conduct affairs by mutual consideration through the use of *shura* (Sulaiman, 1999), although the institution of *jirga* had been practiced in Afghanistan in pre-Islamic times. Assemblies are not convened on a regular schedule, but are rather called on an *ad hoc* basis in response to an issue of community importance (Boesen, 2004), such as a land or marital dispute or a security threat. Similarly, *jirga* and *shura* are not fixed membership institutions, but rather bring together local power-holders and elders ("white beards") from families affected by the issue at-hand (Kakar, 2005).

A salient feature of *jirga* and *shura* is the practice of decision-making by consensus or mutual consultation. The institution thus purportedly provides a mechanism by which all parties affected by an issue can express their opinion and have it considered by the wider community. The consensus-

based principle is said to assist in community buy-in over the issue at hand and its resolution. However, anthropological field work in rural Afghanistan suggests that the consensus-based principle is often "compromised by the social inequality [that is] pronounced throughout rural areas" (Boesen, 2004), with decisions made by a narrow group of prominent tribal elders, rather than the entire assembly (Kakar, 2005). Accountability and abuse of authority appears to vary by the degree to which villagers are economically dependent on these local elites (Pain and Kantor, 2010). In addition, despite the emphasis placed on inclusion, women are commonly precluded from participating in *shura* or *jirga* and thus from local decision-making more generally. The operating assumption is that men can speak for the women in their family and that they, unlike women, have the judgment and requisite information to make decisions (Azarbaijani-Moghaddam, 2009).

III. Experimental Design

Our study is part of an impact evaluation of NSP that randomized assignment of not only project selection procedures, but the program itself (Beath, Christia, and Enikolopov 2010, 2011) and CDC election procedures (Beath, Christia, and Enikolopov 2012). This section discusses the randomization of project selection procedures in the 250 treatment villages in the evaluation (II.1), while also detailing the sample for the study (II.2), and the phasing of the experiment and data collection (II.3).

III.1. Project Selection and Prioritization Procedures

As discussed above, after the election of the Community Development Council (hereafter, "village council"), villages select and prioritize projects to be financed by a block grant sponsored by the program. Villages in the sample were randomly assigned to one of two procedures for selecting and prioritizing projects for funding by NSP. These two procedures, which are closely related to those of Olken (2010), are described below:[4]

> *Referendum:* All adult village residents - both men and women - are eligible to vote, by secret ballot, for the project that they prefer from a list of proposed projects. At least 50 percent of eligible voters in the village must vote in order for the referendum to be valid. Projects with the most votes are selected for implementation, with the number of selected projects determined by

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[4] A detailed guide on the procedures is available at http://nsp-ie.org/sti/sti2e.doc.

the size of funding available for the village. Selected projects are prioritized according to the number of votes received, so the sequence of implementation reflects relative popularity.

Consultation Meeting: The village council convenes and moderates a meeting, open to all villagers - men and women - to discuss and select projects for funding. There is no specific requirement on the level of participation for the meeting to be valid. Informal points-of-procedure (such as a show-of-hands) may be employed during the meetings, but no formal vote takes place. Based on the outcome of the discussion but at its own ultimate discretion, the village council selects and prioritizes projects for funding. This procedure mimics the customary practice in rural Afghanistan of calling a *jirga* or *shura* to decide on important community matters.

Under both selection procedures, the list of proposed projects is prepared using an identical agenda-setting procedure, whereby the village council compiles the list after consultation with villagers. The method of project selection was known when the lists of proposed projects were prepared. As strategic choice of proposed projects could have been affected by knowledge of the selection procedure, we examine the effect of the procedure not only on the choice of projects *per se*, but also on the selection and prioritization of projects conditional on the set of proposed projects.

III.2. Sample and Randomization

The randomization of selection and prioritization procedures occurred in 250 villages assigned to receive NSP and which formed the treatment group for the randomized impact evaluation of NSP (Beath, Christia, and Enikolopov 2011, 2012). The 250 villages are evenly split across ten districts in northern, northeastern, eastern, central, and western Afghanistan.[5] Despite the necessary exclusion of southern areas from the sample due to security concerns, the 10 districts are broadly representative of Afghanistan's ethno-linguistic diversity, with five predominantly Tajik districts, four predominantly Pashtun districts, one predominantly Hazara district, and two districts with significant populations of Uzbek and Turkmen minorities. The basic characteristics of households in the sample appear generally comparable with the population of rural Afghanistan, with households in the study sample being slightly poorer, having worse access to medical services, and experiencing slightly better access to electricity (Beath et. al., 2010).

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[5] In each of the ten districts, 50 villages were selected for inclusion in the study, with 25 of the 50 assigned NSP according to a matched-pair cluster randomization. These villages received NSP following the administration of a baseline survey in September 2007, with the remaining 250 control villages assigned to receive NSP in spring 2012.

The impact evaluation involved variation not only in project selection procedures, but council election methods as well.[6] To ensure random and independent assignment of project selection procedures and council election methods villages were divided in quadruples using an optimal greedy matching algorithm (King et. al., 2007). The 50 villages in each district were first paired based on background characteristics and then matched in pairs of pairs to form quadruples.[7] Each village within the quadruple was then randomly assigned one of four combinations of project selection and council election procedures. Each village within the quadruple was then randomly assigned to one of four combinations of project selection and council election procedures. This assignment procedure ensures that each village in the sample had an equal probability of being assigned each of the project selection procedures.

[TABLE 1 HERE]

The randomization resulted in a well-balanced set of villages. Table 1 presents a comparison between the two groups of villages with respect to a number of pre-intervention characteristics. The differences between the two groups never exceed 13 percent of the standard deviation.

III.3. **Phasing of Intervention and Data Collection**

The baseline survey for the project was administered in September 2007, prior to the selection of projects or election of village councils. Village council elections took place between October 2007 and May 2008, with project selection occurring between November 2007 and August 2008.[8] Both council elections and project selections were monitored, providing additional data on the respective processes. A follow-up survey was administered between June and October 2009 following the start of project implementation.

IV. **Data**

The outcomes of interest for the study are: (i) the degree of alignment between selection outcomes and elite and non-elite preferences; and (ii) villager satisfaction. The former measure is constructed from data on the *ex-ante* preferences of different groups obtained prior to the start of project implementation and the latter measure is constructed from lists of proposed, selected, and

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[6] For more on the election methods results see Beath, Christia and Enikolopov 2012
[7] These characteristics include village size (based on data collected by Afghanistan's Central Statistics Office) and a set of geographic variables (distance to river, distance to major road, altitude, and average slope).
[8] In all villages, there was at least a month between village council elections and project selection.

prioritized projects for each village. The following sections provide further information on the sources of data on *ex-ante* project preferences (III.1); selection process (III.2); selection outcomes (III.3); and villagers' satisfaction (III.4).

IV.1. *Ex-Ante* Project Preferences

Data on *ex-ante* preferences come from a survey administered prior to village council elections and project selection. In each village, the survey was administered to three groups of villagers: (1) ten randomly-selected male heads-of household; (2) a focus group of male village leaders; (3) a focus group of leading village women. The overall number of respondents surveyed exceeded 13,000 (see Table 2 for more detailed information).[9]

[TABLE 2 HERE]

A question in the survey asked all respondents to indicate, from a list of potential projects, the three projects that should be implemented if the village was provided with a $60,000 grant.[10] From this data, we construct village-level dummy variables indicating the project most frequently preferred by each of the three groups,[11] providing measures of the preferences of male villagers, male elites, and female elites, respectively.

[TABLE 3 HERE]

Table 3 presents the preferences for the three groups of villagers. Drinking water projects are the first choice of male household respondents and female elites, while preferences of male elites are more evenly distributed across different projects. A comparison of villages assigned to different

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[9] We did not administer the baseline survey to a random sample of female villagers due to financial and logistical constraints, so we do not have information on their preferences.

[10] Male and female focus group respondents were asked to identify one project from a list of 15 possible projects, while individual male household and female respondents were asked to select and prioritize three projects from the same group of 15. To ensure comparability, we focus on the project that was named as the most important in the household and individual surveys. Female respondents were asked the question twice in both the group setting and individually, but we use only information from the female individual questionnaire and check robustness with the female focus group. To increase statistical power in the analysis, we group the 15 possible project types into five categories: (i) roads and bridges; (ii) irrigation; (iii) drinking water; (iv) electricity; and (v) other (which include men's courses, health courses, schools, health facilities, seeds, agricultural equipment, livestock, microfinance programs, communal toilet facilities, and community centers). The four types of projects not included in the "other" category are the four most popular types of selected projects.

[11] In the event of two or more projects having the same number of respondents preferring them and these numbers exceeding the number of respondents preferring other projects, the respective projects were all marked as the most preferred.

project selection procedures reveals no significant differences in projects most preferred by different groups of villagers.[12]

IV.2. Project Allocation Process

To obtain data on the project selection and prioritization process, we monitored implementation of the procedures in 127 randomly-selected villages (63 villages assigned to meetings and 64 villages assigned to referenda). Data were collected on the basis of both monitors' observations in each of the 127 villages and from 1,238 interviews of villagers following their participation in the selection process.

[TABLE 4 HERE]

According to the data gathered, the median village meeting was attended by 120 villagers and 14 council members, whereas participation of villagers in referenda was significantly higher, with a median of 213 villagers voting. In meetings, council members dominated the discussion, with approximately half of council members expressing their opinion compared to only one–of-eight male villagers and one–of-twenty female villagers in attendance.

IV.3. Project Allocation Outcomes

Data on allocation outcomes includes information on the projects that were (i) proposed; (ii) selected; and (iii) prioritized. Data were provided by NGOs overseeing the selection process for 235 out of the 250 villages in the sample.[13] The data cover 1,567 proposed and 820 selected projects.

[TABLE 5 HERE]

Table 5 tabulates outcomes by procedure. Across the sample, a median of five projects were proposed, a median of three projects were selected, and a median of one project was prioritized. There are no statistically significant differences between villages assigned to different procedures.

Roads and bridges, irrigation, drinking water, and electricity were the most frequently proposed projects.[14] Selected projects largely mirrored those of proposed projects, with roads and bridges

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[12] The full distribution of women elites' preferences (including projects that were not the most preferred) was not well balanced between villages that were assigned different project selection procedures. To account for these imbalances, we check that the results are robust to controlling for the second and third most preferred projects.
[13] Of the 15 villages for which the data was not received, 7 villages did not comply with the assignment of NSP treatment, which was driven primarily by the confusion between villages with similarly sounding names. Violations were not correlated with the assigned decision making rules. For the remaining 8 villages, the NGO had not gathered the necessary information. In both cases attrition is not correlated with the assigned project selection procedure.

being the most frequently selected, followed by drinking water, irrigation, and electricity. Electricity was the most frequently prioritized project.

There is no statistically significant effect of the selection and prioritization procedure on the type of projects that are proposed or selected. However, villages that are assigned to select and prioritize projects by referenda are more likely to prioritize electricity projects (difference is significant at the 1 percent level).

IV.4. Villagers' Satisfaction

Information on villagers' satisfaction comes from a survey administered a year after the start of project implementation. Enumerators revisited the ten randomly-selected households surveyed prior to the village council elections and administered separate questionnaires to both male household heads and a senior woman in the household. The data provide information on 4,666 male respondents and 4,234 female respondents (see Table 2).

To measure villagers' satisfaction, we use four perception-based binary indicators from male and female household surveys: (i) respondent disagrees with a recent decision or action of the village leadership; (ii); respondent attributes positive economic changes to actions of the village leadership; (iii) respondent is satisfied with the work of village leaders; (iv) respondent perceives that the household is better off than it was last year.

V. Results

The following sections present the effects of variation in selection procedures on allocation outcomes (IV.1) and villager satisfaction (IV.2).

V.1. Effect of Proposal, Selection, and Prioritization Outcomes

The effect of selection and prioritization procedure on allocation outcomes is estimated using the following conditional fixed effects logit model:

$$Pr\left(Y_{vp} = \mathbf{1}|Pref_{pvg}, S_{iv}, \alpha_p, \beta_{ig}\right) = \Lambda\left(\sum_{i=1}^{2}\sum_{g=1}^{3} Pref_{pvg} \times S_{iv} \times \beta_{ig} + \alpha_p + \mu_v\right)$$

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[14] Schools and health facilities, despite being preferred by relatively large numbers of respondents across the ten sample districts, were very rarely proposed due to the requirement that such project types be coordinated through the respective line ministries.

where Y_{vp} is a dummy variable indicating whether project p was proposed, selected or prioritized in village v; $Pref_{pvg}$ is a dummy variable indicating whether project p was preferred by group $g \in \{Male\ Villagers; Male\ Elite; Females\}$; and S_{iv} is a dummy variable which equals 1 if village v selected projects using decision-making process $i \in \{Referendum; Village\ Meeting\}$ and 0 otherwise. To identify whether different procedures produce different outcomes, we test the hypothesis of equality of β_{ig} across values of i. Standard errors are clustered at the village level.

The conditional logit specification accounts for village-specific variables and estimates the effect of the characteristics that are specific to a certain project in a village. In the results reported in Table 6, the coefficients indicate, for each selection and prioritization procedure, how a project being preferred by one of the three groups affects the probability of the project being proposed, selected, or prioritized.[15]

[TABLE 6 HERE]

The results indicate that male elites exercise significant influence over project proposal, selection, and prioritization in villages assigned to meetings, but exercise no such influence in referendum villages. The difference between the effect of elite preferences in referendum and meeting villages is significant for selection and prioritization, but not for proposal.

Male villagers' preferences do not affect proposal, but significantly influence selection and prioritization under both procedures. There is no significant difference in the effect of male villager preferences between the two selection types.

Female elite preferences have only a marginally significant effect on project selection in village meetings and the differences between the two procedures is not statistically significant.

To determine whether different procedures affect selection and prioritization after proposal, we estimate the effects for proposed projects only. Results in columns (4) and (5) of Table 6 indicate that, after proposal, elites influence prioritization in meetings, but have no influence in referenda. Female elites have influence over the selection and prioritization of the proposed projects in village meetings, but not in referenda.

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[15] Unfortunately, conditional logit specification does not allow for meaningful interpretation of the absolute value of the coefficients or marginal effects, since it does not identify village fixed effects.

V.2. Effect on Villagers' Satisfaction

To examine the effect of selection and prioritization procedures on perceptions of local governance and economic welfare, we estimate the following OLS regression:

$$Y_{ij}^{FU} = \alpha + \beta \cdot Referendum_j + \delta_k + \varepsilon_{ij}$$

where Y_{ij}^{FU} is one of the four perception measures for respondent i in village j; $Referendum_j$ is a dummy variable that equals one if village j was assigned to allocate resources by referendum and zero otherwise, and δ_k is a quadruple fixed effect.[16] Standard errors are clustered by village.

[TABLE 7 HERE]

Columns (1) and (4) in Table 7 present the results for male and female respondents respectively. The results show that referenda increase the probability of male villagers expressing satisfaction with the work of village leaders and perceiving an improvement in their economic situation. Similarly, referenda decrease the probability of female villagers disagreeing with a recent decision of village leaders and increase the probability of female villagers attributing positive economic changes to village leaders. Overall, the results indicate that referenda positively impact villagers' satisfaction.

To determine whether elite influence over resource allocation affects villager' satisfaction, we estimate the following OLS regression:

$$Y_{ij}^{FU} = \alpha + \sum_{g=1}^{3} Pref_{vg} \times \gamma_{ig} + \delta_k + \varepsilon_{ij}$$

where $Pref_{vg}$ is a dummy variable indicating whether any of the selected projects was preferred by group g in village v. As in the previous specification, we use a quadruple fixed effect and allow for clustering of standard errors at the village level.

Results, presented in columns (2) and (5) of Table 7, indicate that elite domination of project selection has a strong negative effect on villagers' satisfaction. In villages in which projects preferred by elites were selected, male villagers are more likely to disagree with recent decisions of village leaders and are less likely to attribute positive economic changes to village leaders or to perceive an

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[16] We include quadruple fixed effects to account for the allocation of treatment to villages (villages were first assigned to either the treatment and control groups, with treatment villages then assigned to either referenda or meetings) through quadruple-wise matching (Bruhn and McKenzie, 2009).

improvement in their economic situation. Similarly, female villagers are less likely, as a result of elite domination of project selection, to attribute positive economic changes to village leaders.

If the selected project was preferred by female elites, male villagers are more likely to disagree with recent decisions of village leaders and are less likely to report positive changes in their economic situation. Selection of projects preferred by female elites does not have a significant effect on the satisfaction of ordinary female villagers, and, in three out of four cases, the point estimates are negative, suggesting that female elite preferences differ from those of average female villagers. Overall, elite domination of project selection negatively affects the satisfaction of male and female villagers.

To determine whether the positive effect of referenda on villagers' satisfaction is driven by actual outcomes or by the process itself, we estimate the following regression

$$Y_{ij}^{FU} = \alpha + \beta \cdot Referendum_j + \sum_{g=1}^{3} Pref_{vg} \times \gamma_{ig} + \delta_k + \mu_l + \varepsilon_{ij}$$

where all the variables are the same as above and μ_l is a project type fixed effect. Thus, the specification estimates the effect of the selection procedure on villagers' satisfaction, controlling for preference alignment and the type of selected projects.

Columns (3) and (6) of Table 7 present the results of this estimation. The effect of referenda on villagers' satisfaction decreases in magnitude in all specifications but one, but in all cases remains statistically significant. Thus, the higher levels of satisfaction observed under referenda are driven mainly by the procedure itself, rather than by differences in outcomes caused by the different selection procedures.

VI. Discussion of Results

The results show that allocation procedures significantly impact the relative ability of elites and non-elites to influence allocation outcomes. Specifically, allocation decisions made by consultative procedures grant significant influence to male elites, compared to directly democratic procedures. The results further indicate that elite influence over allocation decisions lowers satisfaction with the local leadership and worsens economic perceptions, indicating that elite influence is perceived by villagers as malevolent capture rather than benevolent control.

The finding that consultative procedures grant elites greater influence over allocation decisions results from the dominance of meetings by council members, who often overlap with pre-existing elites.[17] According to monitoring data collected during meetings, village council members had more influence than other attendees in the selection of projects in 98 percent of meetings. In 35 percent of meetings, the final choice of projects was made entirely by council members. This finding is consistent with Humphreys et. al. (2006), which observes discussion leaders' preferences to be a significant determinant of the outcomes of deliberative meetings.

One of the most important channels through which elites influence allocation outcomes is agenda setting. In both meetings and referenda, agenda-setting rules were identical, but the fact that the selection procedure was known in advance clearly affected the choice of the proposed projects. In particular, the council was more likely to propose projects that were preferred by elites if a meeting was mandated. This effect played a major role in these villages as, conditional on a project being proposed, male elite preferences had only a small effect on project choice.[18] As we would expect elites to be more likely to manipulate the list of proposed projects under referenda given their more circumscribed ability to influence the results thereafter, the result is somewhat surprising. Two complementary explanations are that, when setting agendas for meetings, elites compensate for expected attempts by villagers to change agendas during the meeting, while, when setting agendas for referenda, elites anticipate a broader political cost from diverging significantly from villager preferences given the immutable nature of the agenda.

The results indicate that female elites influence project choice only under meetings. Since female elites commonly share familial links with the male elites, this result is perhaps not entirely surprising. However, unlike male elites, who exhibit their influence primarily at the proposal stage, female elites have almost no influence on project proposal, but a significant impact on project selection and prioritization. The results also indicate that female elite influence does not have a positive effect on the satisfaction of ordinary females, suggesting that preferences of female elites diverge from those of female villagers.[19]

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[17] Beath, Christia, and Enikolopov (2012) finds that more than at least a quarter of males elected to the CDC were identified as village leaders before the CDC elections.

[18] Preferences of male villagers and female elites had almost no effect on the choice of proposed projects.

[19] Unfortunately, we don't have measures of ex-ante preferences for the ordinary women in the village, so we cannot directly test how aligned the selected projects were with their preferences and if the choice of their most preferred project increased their satisfaction ex-post.

The finding that the process of direct democracy increases villagers' satisfaction is consistent with Olken (2010). However, our finding that selection and prioritization procedures affect allocation outcomes differs from Olken (2010), who finds no effect of procedure on the choice of general projects, but does observe some differences between procedures in project location.[20] Although this difference might be driven by the differences in sample size between the two studies,[21] there are also reasons to believe that the differences in results are driven by differences in the local context. Two differences in context can be particularly important in explaining the differences between the results of the two studies.

First, Indonesian villages generally consist of several hamlets separated by as much as two kilometers, whereas Afghan villages generally consist of a single hamlet. As a result, project location is highly salient in the selection process in Indonesian villages, but less important in Afghan villages. In Afghanistan, project type is thus more likely to be the main source of disagreement between villagers in the allocation process. This is confirmed by monitoring data which indicates that only 19 percent of villagers consider location to be the most important consideration in project choice, and by the absence of a correlation between this share and the geographical size of the village.[22]

Second, Indonesian villages receive funding for general projects periodically, which allows for 'log-rolling' and inter-temporal trade between different interest groups within a village, so that each part of the village gets its most preferred projects in turn. Repeated interactions can sustain such inter-temporal trade under both procedures, which make the analysis of a single instance of selection quite misleading. However, a women's project included in the sample studied by Olken (2010) was considered a one-shot event, which is comparable with the situation in Afghanistan where no commitments for follow-up grants were made to villagers. In both cases, the analysis reveals that, absent opportunity for inter-temporal trade in project choice, direct democracy results in allocation outcomes more aligned with the preferences of the general public.

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[20] Specifically, Olken (2010) finds some evidence that projects selected by referenda are more likely to be located in poorer hamlets.

[21] 49 villages in 3 provinces in Olken (2010) as compared with 250 villages in 10 districts in our study.

[22] The size of the village was measured as the mean distance from the households surveyed in the follow-up survey to the center of the village, where the center of the village was determined as the average of the coordinates of all the surveyed households in a village.

VII. Conclusion

This paper examines the effect of decision-making rules on resource allocation outcomes. Using data from 250 villages in Afghanistan, we compare the allocation outcomes under direct democracy with outcomes under consultative procedures. Our findings indicate that direct democracy limits elite influence over allocation outcomes, while consultative processes are susceptible to elite control. Elite control over selection outcomes is found to worsen perceptions of local governance and of the local capture, which implies that such influence is contrary to the interests of the general population and thereby reflects elite capture, rather than more benign forms of elite influence. Direct democracy in contrast, increases public satisfaction both by increasing alignment of outcomes with public preferences and as a result of increased acceptance of the process by villagers.

The findings of the study are especially noteworthy given the context in which they occurred. While direct democracy is almost unheard of in rural Afghanistan, the consultation meeting procedure employed by the experiment approximated the method by which public decisions are traditionally made, with a council of tribal elders and other local notables convening an open discussion among community members with an aim of reaching decision by consensus. Such procedures command great legitimacy in Afghan society owing to their long history of use and accordance with practices prescribed by the Holy Qur'an. That these procedures proved susceptible to elite capture in the experiment thus suggests that direct democracy can serve a valuable role in improving the equity of public goods provision even in societies that lack democratic traditions.

The study is also noteworthy in that it replicates the field experiment of Olken (2010) and, given the difference in the results of the two studies, demonstrates how the context of an intervention can affect outcomes. Whereas Olken (2010) observes a limited effect of direct democracy on the type of projects selected within a context of a repeated series of project selections and multi-hamlet Indonesian villages, we find that a similar intervention can influence the type of projects selected in a one-off event in single Afghan hamlets. The difference between the two programmatic contexts in the possibility for inter-temporal trade between interest groups and the difference in geographic context in the relative salience of location and project type in selection outcomes is considered to explain the contrasting results of the two studies. The combined results thus demonstrate how a comparison of the results of field experiments conducted across different contexts can provide important information on the mechanisms of effects.

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Table 1: Balance of Pre-Treatment Covariates

	Village Meeting	Referendum	Standardized Difference
Number of Households in Village	102	113	0.12
Size of Household of Respondents	9.73	9.85	0.02
Age of Respondent	44.04	43.64	0.03
Respondent is Formally Educated	0.71	0.71	0.00
Household is Food Secure	0.45	0.45	0.02
Source of Drinking Water is Unprotected Spring	0.28	0.26	0.03
Respondent Has Access to Electricity	0.17	0.13	0.11
Male Health Worker is Available	0.12	0.12	0.00
Female Health Worker is Available	0.09	0.10	0.04
Respondent Owns a Mobile Phone	0.17	0.19	0.06
Respondent Owns a Radio	0.77	0.74	0.07
Respondent Owns Sheep	0.56	0.54	0.05
Total Food Expenditure in Past 30 Days (Afghanis)	3512	3612	0.05
Respondent Received Loan in Past Year	0.46	0.48	0.03
Respondent Believes People Should Pay Taxes	0.37	0.43	0.13
Respondent Prefers Drinking Water Project	0.30	0.29	0.03
Respondent Prefers School Project	0.16	0.18	0.06
Respondent Prefers Road or Bridge Project	0.13	0.14	0.04
Respondent Attended Meeting of Shura	0.32	0.32	0.02
Female Respondent Owns Private Land	0.32	0.28	0.09

	Baseline Survey (September 2008)	Follow-Up Survey (May -October 2009)
Male Household Questionnaire	4,895 respondents in 500 villages	4,666 respondents in 474 villages
Male Focus Group Questionnaire	5,334 respondents in 500 villages	3,197 respondents in 469 villages
Female Focus Group Questionnaire	3,670 respondents in 406 villages	2,792 respondents in 424 villages
Female Household Questionnaire	Not Administered	4,234 respondents in 431 villages
Female Individual Questionnaire (Female Focus Group participants)	3,398 respondents in 406 villages	Not Administered

Table 3: Ex-Ante Most Preferred Projects (percentage of villages)

Panel A: Male Head of Household		
Most Preferred Project:	Village Meeting	Referendum
Drinking Water	36.0%	40.8%
Irrigation	17.6%	12.0%
Electricity	18.4%	18.4%
Roads and Bridges	6.4%	4.8%
Other	33.6%	36.8%
Observations	125	125

Panel B: Male Focus Group		
Most Preferred Project is	Village Meeting	Referendum
Drinking Water	27.6%	23.6%
Irrigation	25.2%	29.3%
Electricity	25.2%	21.1%
Roads and Bridges	16.3%	19.5%
Other	48.8%	45.5%
Observations	123	123

Panel C: Female		
Most Preferred Project is	Village Meeting	Referendum
Drinking Water	54.0%	50.0%
Irrigation	2.4%	5.7%
Electricity	6.5%	8.9%
Roads and Bridges	9.7%	5.7%
Other	32.3%	34.7%
Observations	124	124

Notes: The difference between the villages with different selection methods is never statistically significant at 10% level according to Pearson's chi-squared criterion. In case of a tie all the projects with the maximum number of votes are considered as the most preferred, so the sum of percentages may exceed 100%.

Table 4: Participation by Decision-Making Procedure.

	Villagers				Village Council Members			
	Obs.	Mean	Med.	Std. Dev.	Obs.	Mean	Med.	Std. Dev.
				Village Meeting				
Total	107	150	113	132	116	15.6	14	7.0
Male (Monitored Villages)	63	70.7	52	60.9	63	7.1	6	2.8
Female (Monitored Villages)	54	74.9	69	54	55	7	6	3.8
				Referendum				
Total	116	220.2	167	166.5				
Male	116	137.7	110	102				
Female	97	133.1	108	91.1				

Table 5: Resource Allocation Outcomes

	Decision-Making Procedure	
	Village Meeting	Referendum
Proposal		
Median number per village	5	5
Type		
Drinking Water	19.7%	19.3%
Irrigation	21.0%	19.3%
Roads and Bridges	28.0%	28.3%
Electricity	17.1%	17.9%
Other	14.2%	15.4%
Observations	590	597
p-Value for χ^2 Test	0.40	
Selection		
Median number per village	3	3
Type		
Drinking Water	27.2%	23.6%
Irrigation	20.7%	18.4%
Roads and Bridges	28.5%	29.3%
Electricity	16.5%	20.2%
Other	7.0%	8.4%
Observations	309	331
p-Value for χ^2 Test	0.69	
Prioritization		
Median number per village	1	1
Type		
Drinking Water	29.9%	20.5%
Irrigation	25.6%	17.9%
Roads and Bridges	22.2%	20.5%
Electricity	18.8%	37.5%
Other	3.5%	3.6%
Observations	117	112
p-Value for χ^2 Test	0.06	

Table 6: Effect of Selection on Selection Outcomes

Instrument	Procedure	Proposal (1)	Selection (2)	Prioritization (3)	Selection (4)	Prioritization (5)
			All Projects		Proposed Projects	
Male Household	Village Meeting	-0.35	0.53**	0.46*	1.05***	0.63**
		[0.270]	[0.230]	[0.257]	[0.354]	[0.283]
	Referendum	0.22	0.81***	0.66**	1.02***	0.63**
		[0.238]	[0.258]	[0.263]	[0.356]	[0.260]
t-Stat of Diff. btw. Types		[1.584]	[0.840]	[0.550]	[-0.057]	[0.002]
Male Focus Group	Village Meeting	0.82***	0.54**	0.75***	0.24	0.53*
		[0.314]	[0.242]	[0.260]	[0.301]	[0.296]
	Referendum	0.20	-0.04	-0.11	-0.30	-0.23
		[0.289]	[0.242]	[0.258]	[0.293]	[0.262]
t-Stat of Diff. btw. Types		[-1.498]	[-1.696]*	[-2.371]**	[-1.302]	[-1.912]*
Female	Village Meeting	0.07	0.47*	0.46	0.65*	0.61*
		[0.285]	[0.247]	[0.288]	[0.338]	[0.323]
	Referendum	0.18	0.11	-0.31	-0.01	-0.32
		[0.259]	[0.242]	[0.300]	[0.305]	[0.321]
t-Stat of Diff. btw. Types		[0.297]	[0.259]	[0.242]	[-1.469]	[-2.287]**
Project Type Fixed Effects		Yes	Yes	Yes	Yes	Yes
Number of Observations		865	1,100	1,110	635	817

Notes. All specifications are conditional fixed-effect logit regressions. The unit of observation is project type-village. The dependent variable assumes value one if project type is proposed, selected, or prioritized and zero otherwise. Each row corresponds to an interaction between a binary variable denoting the decision-making procedure and a binary variable denoting whether project type was preferred by the respective village group. Robust standard errors are clustered at the village level. *, **, and *** denote significance at 10%, 5%, and 1% levels.

	(1)	(2)	(3)	(4)	(5)	(6)
Panel A	Respondents Disagreed With Decision or Action of Village Leaders					
	Male Respondents			Female Respondents		
Referendum	-0.016 [0.013]		-0.014 [0.013]	-0.055*** [0.017]		-0.044*** [0.016]
Selected Project Preferred by Male Villagers		-0.044** [0.017]	-0.052*** [0.017]		0.007 [0.023]	0.003 [0.022]
Selected Project Preferred by Male Elite		0.036** [0.014]	0.029** [0.014]		-0.009 [0.020]	-0.02 [0.020]
Selected Project Preferred by Female Elite		0.042*** [0.015]	0.027* [0.016]		0.003 [0.018]	-0.001 [0.020]
Types of selected projects	No	No	Yes	No	No	Yes
Observations	2,366	2,366	2,366	2,083	2,083	2,083
R-squared	0.06	0.07	0.07	0.11	0.10	0.12
Panel B	Respondent Attributes Positive Change in Economic Situation to Village Leaders					
Referendum	-0.0001 [0.017]		-0.009 [0.017]	0.064** [0.027]		0.059** [0.026]
Selected Project Preferred by Male Villagers		0.064*** [0.024]	0.063*** [0.024]		0.031 [0.038]	0.027 [0.039]
Selected Project Preferred by Male Elite		-0.055*** [0.020]	-0.058*** [0.021]		-0.056* [0.032]	-0.054* [0.032]
Selected Project Preferred by Female Elite		-0.017 [0.018]	-0.035 [0.023]		0.012 [0.034]	-0.006 [0.040]
Types of selected projects	No	No	Yes	No	No	Yes
Observations	2,143	2,143	2,143	2,101	2,101	2,101
R-squared	0.16	0.17	0.17	0.13	0.13	0.14
Panel C	Respondent is Satisfied with Work of Village Leaders					
Referendum	0.017** [0.008]		0.018** [0.008]	0.007 [0.006]		0.008 [0.006]
Selected Project Preferred by Male Villagers		-0.002 [0.011]	0.003 [0.011]		0.016 [0.010]	0.017 [0.010]
Selected Project Preferred by Male Elite		-0.006 [0.010]	-0.004 [0.010]		-0.013 [0.009]	-0.012 [0.009]
Selected Project Preferred by Female Elite		-0.013 [0.010]	-0.008 [0.011]		-0.006 [0.007]	-0.007 [0.008]
Types of selected projects	No	No	Yes	No	No	Yes
Observations	2,355	2,355	2,355	2,135	2,135	2,135
R-squared	0.08	0.08	0.09	0.04	0.04	0.04
Panel D	Household's Economic Situation Has Improved in Past 12 Months					
Referendum	0.062*** [0.023]		0.048** [0.023]	0.024 [0.026]		0.013 [0.026]
Selected Project Preferred by Male Villagers		0.043 [0.029]	0.050* [0.029]		-0.022 [0.035]	-0.022 [0.036]
Selected Project Preferred by Male Elite		-0.063** [0.026]	-0.058** [0.027]		-0.013 [0.030]	-0.013 [0.031]
Selected Project Preferred by Female Elite		-0.049* [0.029]	-0.027 [0.035]		-0.012 [0.034]	-0.01 [0.037]
Types of selected projects	No	No	Yes	No	No	Yes
Observations	2,366	2,366	2,366	2,140	2,140	2,140
R-squared	0.13	0.13	0.13	0.15	0.15	0.15

Notes. Robust standard errors are clustered at the village level. *, **, and *** denote significance at 10%, 5%, and 1% levels.