

Working paper



International
Growth Centre

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When citing this paper, please
use the title and the following
reference number:
S-5016-AFG-1



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Do Elected Councils Improve Governance Outcomes? Experimental Evidence on Local Institutions in Afghanistan¹

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April 3, 2013

Using a randomized field experiment we look at the effect of the creation of democratically elected councils in rural Afghanistan on local governance quality, as measured by the outcomes of a food aid distribution. The results indicate that when democratic councils, rather than traditional leaders, manage the distribution the food aid targeting is improved and the level of embezzlement is not changed. However, in villages in which a council was created, but the responsibility for managing the aid distribution was not explicitly assigned to it, targeting was not improved and embezzlement increased. Requiring female participation in the distribution also increased embezzlement and did not improve targeting. Overall, the results indicate that the creation of democratic institutions can improve governance, but only if institutional responsibilities are clearly defined. If democratic institutions are created in parallel with traditional ones without clear division of responsibilities, this may lead to an increase in corruption.

I. Introduction

The relationship between institutions and economic and political development has long been a topic of academic inquiry. Over the past decade, various studies (Sokoloff and Engerman, 2000; Acemoglu et. al., 2001; Banerjee and Iyer, 2005) have provided empirical evidence asserting an important role of institutional quality in determining development outcomes. However, there nonetheless exists uncertainty as to what policy actions or reforms improve governance quality

¹ The authors are indebted to Hamidullah Gharibzada, Mohammad Isaqzadeh, Maiwand Siddiqi, Tariq Wardak, Shahim Kabuli and Wais Mayer for superlative field support and gratefully acknowledge the generous cooperation of Tariq Ismati and Abdul Rahman Ayubi of the National Solidarity Programme; H. E. Wais Barmak, Minister of Rural Rehabilitation and Development; and Philippe Dongier, Susanne Holste, Zishan Karim, Ladisy Chengula, Elliot Mghenyi, Norman Piccioni, and Mio Takada of the World Bank. The study was supported by the United States Agency for International Development (USAID), the Canadian International Development Agency (CIDA), the International Growth Centre (IGC), the UN World Food Programme (WFP), and the World Bank. We thank Horacio Larreguy and seminar participants at the University Pompeu Fabra, Bocconi University, IIES at the University of Stockholm, ITAM, Princeton University, Harvard University, Maryland University and IAS for helpful comments. Ruben Enikolopov acknowledges financial support through Deutsche Bank Membership during his stay at IAS. The findings, interpretations, and conclusions expressed in this paper are entirely those of the authors and should not be attributed in any manner to the World Bank, to its affiliated organizations, or to members of its Board of Executive Directors, or the countries they represent. Similar disclaimers apply to USAID, CIDA, IGC, and WFP.

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(Pande and Udry 2006), with little known, for instance, about whether democratization results in more equitable policy outcomes and lower levels of corruption.²

Identification of the effects of institutional change requires that variation be exogenous to other political and economic outcomes. While this is rarely present in national-level reforms, there are occasional cases of exogenous variation in sub-national institutions (e.g. Casey et. al., 2012; Chattopadhyay and Duflo, 2004). This study explores one such instance whereby, as part of a randomized impact evaluation of Afghanistan's National Solidarity Program (NSP), democratically-elected, gender-balanced development councils were set up in a randomly selected half of 500 villages, while the other half retained their customary governance structure. As customary structures are often hereditary and exclude women, the creation of democratic councils represented a decisive change from the *status quo*.

In order to analyze the effects of the creation of democratic councils on the quality of local governance, we examine outcomes of a village-level food aid distribution undertaken across the sample of 500 villages approximately four years after the creation of these councils. We use wheat allocation as reported by village leaders, along with information from household surveys administered following the distribution, to measure the quality of aid targeting (i.e. whether the wheat was distributed to the neediest) as well as the incidence of embezzlement and nepotism. The outcomes of food aid distributions provide an appropriate measure of local governance quality as such distributions are a standard public service commonly performed by village leaders in rural Afghanistan and have important economic consequences for villagers. As compared to other governance services provided by village leaders, such distributions also generate outcomes that are more easily quantifiable and objective, and which are comparable across villages with differing structures of governance.

There are several channels by which democratic councils may affect local governance in general and aid distribution outcomes in particular. The creation of councils will have a direct effect on governance outcomes if council members assume *de facto* responsibility for the provision of local governance services and, due to their electoral accountability to villagers, behave differently than customary leaders. However, even if customary leaders retain *de facto* governance responsibilities, council creation may indirectly affect local governance outcomes if customary village leaders

² Martinez-Bravo et al. (2012) is a notable exception.

respond to the creation of democratic councils by changing their behavior. Finally, in the context of Afghan villages, outcomes may also be affected by the increased involvement of women in local decision-making, which comes as a result of the creation of gender-balanced democratic councils.

To explore the mechanisms by which councils affect local governance outcomes, we introduce randomized variation in how the distribution was managed. Specifically, in villages with elected councils, we vary whether the council is mandated to manage the distribution, as opposed to the situation in which no such requirement is made and the distribution is overseen by the *de facto* village leadership (that is, those persons identified as leaders by villagers). In villages without elected councils, we vary whether the male-dominated traditional village leadership manages the distribution; or whether women are requested to participate in addition to the *de facto* village leadership. By comparing outcomes in these four groups of villages, we are able to isolate the effects of: (i) the management of the distribution by the elected council (ii) the existence of elected councils *per se* without explicit requirement on who manages the distribution; and (iii) mandating female participation in the distribution.

The results indicate that if elected councils are mandated to be in charge of the aid distribution there is an improvement in objective targeting outcomes, without any effect on embezzlement or participation, as compared with villages in which the distribution was managed by the traditional leadership. However, the existence of a democratic council *per se* without a clear mandate on who assumes responsibility for the distribution increases embezzlement and reduces participation of ordinary villagers in the decision-making process, without improving the targeting of the food aid. Mandating female involvement has a similar effect, as it increases embezzlement, without improving targeting or participation. Overall, the results suggest that democratic councils improve the quality of governance, but only if there is no ambiguity over the assignment of responsibility, whereas the creation of parallel institutions without a defined hierarchy can lead to an increase in rent-seeking rather than to efficiency-enhancing checks and balances.

The finding that the creation of democratically elected councils can have a positive effect on the quality of governance contributes to the extensive literature on the effects of increased

representation and democratization on the allocation and diversion of public resources³ and the literature on the effectiveness of transplanted institutions (Hayek 1960; Berkowitz, Pistor, and Richard 2003; Acemoglu et al. 2011). The finding that the quality of governance depends on the way responsibilities are assigned between different governance bodies provides evidence consistent with the theoretical literature on the effects of governance structure and separation of powers on corruption (Shleifer and Vishny 1993; Persson, Roland and Tabellini 1997). Finally, the finding that the creation of village councils as part of a community development project has an effect on the quality of local governance contributes to the literature that looks at the effects of CDD programs on social and governance outcomes (e.g. Labonne and Chase 2008; Fearon et al 2009, 2011; Casey et al 2012).

This paper is structured as follows: Section II provides background information on the National Solidarity Program, local governance, and food distributions in rural Afghanistan; Section III describes the research design; Section IV outlines the hypotheses for our study as previously outlined in our pre-analysis plan; Section V presents the relevant data sources; Section VI outlines the specifications used to test the proposed hypotheses; Section VII describes the results, Section VIII describes the results and Section IX concludes.

II. Background Information

II.1 - National Solidarity Programme

This study builds upon the randomized impact evaluation of the National Solidarity Programme (NSP). Following the ousting of the Taliban in 2001, the Government of Afghanistan developed the National Solidarity Program (NSP) to build representative and gender-inclusive institutions for local governance and to deliver critical services to the rural population. Since its inauguration in 2003, NSP has been implemented in over 29,000 villages across all 34 provinces of Afghanistan, making it the largest single development program in the country. The program is executed by the

³ The literature suggests that higher representation as captured by levels of democratization, leads to higher human capital (Tavares and Wacziarg, 2001), lower inequality (Tavares and Wacziarg, 2001; Reuveny and Li, 2003), higher wages (Rodrik, 1999) and higher GDP growth (Persson and Tabellini, 2007; Papaioannou and Siourounis, 2008). The literature also suggests that increased representation induces higher public goods provision (Lizzeri and Persico, 2004; Besley and Kudamatsu, 2008) and redistribution of resources away from the elites (Acemoglu and Robinson 2000, 2001; Boix, 2003) through two non-mutually exclusive channels- either because more democratic institutions are closer to representing median voter preferences or because elected elites are more accountable to the people that bring them and keep them in power.

Government of Afghanistan, funded by the World Bank and a consortium of bilateral donors, and implemented by NGOs.

NSP uses the community-driven model of aid delivery, and is structured around two major interventions at the village level: (i) the creation of a Community Development Council (CDC); and (ii) the disbursement of block grants to support project implementation. In order to facilitate the creation of representative institutions for village governance, NSP mandates that CDCs be gender-balanced and created through a secret-ballot, universal suffrage election. Once these councils are formed, NSP disburses block grants, valued at \$200 per household up to a village maximum of \$60,000, to support the implementation of projects selected by the council in consultation with the village community. Projects are ordinarily focused on either the construction or rehabilitation of 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

II.2 - Local Governance in Afghanistan

As Afghanistan's central government has historically lacked the strength and resources to exercise local control or provide public goods in many parts of the country, local communities have constituted a critical base of governance and accountability (Barfield 1984).

The foundation of governance in rural Afghanistan is the local *jirga* or *shura*, a participatory council that has traditionally managed local public goods and adjudicated disputes (Nojumi, Mazurana and Stites 2004). Council members tend to be the elders of families in the village (Rahmani 2006), although membership is ordinarily not fixed. Councils generally convene when there is an issue to resolve and reach their decisions based on consensus (Boesen 2004). In addition to councils, villages ordinarily have a headman (termed a *malik*, *arbab*, or *qariyadar*) - usually a large landowner - who serves as liaison between the village and the central government (Kakar 2005). The local religious authority, the *mullah* is responsible for conducting rites and services and mediating disputes involving family or moral issues (Rahmani 2006). *Mullahs* are also commonly responsible for collecting and managing resources to support the indigent and for maintaining mosques. These bodies may differ in their power and representation, but they are still found today in virtually every

village in rural Afghanistan. Accountability and abuse of authority tends to vary by the degree to which villagers are economically dependent on these local elites (Pain and Kantor 2010).

A key contrast between elected councils and customary governance institutions is the mode of selection and respective accountability structure. While elected councils involve a secret ballot, universal suffrage election, the position of headman is ordinarily inherited or otherwise derived on account of land holdings or other forms of economic authority. The mandating of women's participation in council elections and project selection and management also represents a dramatic departure from customary local governance practices. In rural Afghanistan, the principle of *purdah* - which stipulates that women should be generally hidden from public observation - precludes female involvement in communal gatherings and thus from local governance.

Although there is no formal assignment of local governance functions to elected councils, their authority in selecting, implementing, and managing NSP-funded projects provides them with control over what is, for many Afghan villages, an unprecedented volume of resources. Thus, although the creation of an elected council does not directly usurp the major administrative tasks undertaken by the headman or other customary village institutions, the elected council exists as an institution vested with substantial authority and in parallel to customary governance structures.

Existing qualitative research on NSP is indecisive about the extent to which customary power-holders have captured the elected councils, either through force or legitimate electoral processes, and whether the new institution mirrors existing customary structures or brings about changes in the identity of the village leadership. According to Barakat (2006), while some educated and articulate individuals get elected, traditional elites remain influential. Brick (2008) contends that customary local governance institutions are efficient and that the elected councils have a destabilizing effect by diffusing existing accountability structures, that in turn result in worsened governance outcomes.

Data collected during the impact evaluation of NSP indicates that there is a significant overlap between elected councils and pre-existing elites. Up to 40 percent of council members were members of the pre-existing elite with the overlap being more noticeable among the heads of the elected councils, 70 percent of whom were members of the pre-existing elite (Beath, Christia and Enikolopov 2012a). People elected to the councils, however, are on average younger and better educated than customary leaders. There is also evidence to suggest that some of the responsibilities

from traditional leaders transferred to newly elected village councils. In particular, members of the council were more likely to be identified as the main decision makers and councils were more likely to assume responsibility not only for managing development programs, but also for mediating conflicts, providing emergency assistance, certifying documents, and guiding moral conduct (Beath, Christia and Enikolopov 2010). While council effects on how male villagers perceive local governance seem negligible, they appear to deliver improvements for women (Beath, Christia and Enikolopov 2012b).

II.3 - Wheat Distribution in Afghanistan

Afghanistan is a highly food insecure country. According to the UN's World Food Program (WFP), between a fourth and a third of the total population are considered food insecure, a proportion that reaches almost half the population if the millions of individuals at risk for hunger are included.⁴ WFP has been present in Afghanistan without interruption for the last 50 years and it has an array of delivery programs around food assistance. The one we focus on falls under the general food distribution rubric.⁵ As a result of Afghanistan's rough terrain and high levels of insecurity, WFP tends to use existing local governance structures to assist in its dissemination of food aid, be it traditional councils or elected councils.⁶

Although WFP makes a conscientious effort to monitor and evaluate its activities to ensure that food aid reaches the intended vulnerable individuals, the high level of deprivation, along with the clientalistic nature of Afghan politics, has led to alleged diversions of food aid by the local government, line ministries, and police. According to Saltmarshe and Medhi (2011) a third if not more of the food aid is sold in the local markets instead of being delivered to the intended beneficiaries with allegations of fake recipient lists or ghost recipients.

Overall, food aid distributions in Afghanistan are a common and economically important public service, but also a vehicle for predation and diversion. Thus, looking at the quality of aid targeting and the incidence of embezzlement and nepotism provides a good measure of the quality of local

⁴ In the survey conducted in the villages included in this study prior to the wheat distribution, 48 percent of respondents indicated that members of their household were hungry at least one day during the previous week.

⁵ Other initiatives include unconditional transfers to vulnerable groups, food for work, assets or education programs that provide food as an incentive for people to work on public projects, improve infrastructural assets or send their children to school or attend vocational training themselves.

⁶For more on WFP's operations in Afghanistan see:

http://one.wfp.org/operations/current_operations/project_docs/200063.pdf

governance. In addition, since food aid distributions are not directly related to core activities of the newly elected village councils (i.e. managing development projects), this measure of governance quality does not artificially favor NSP villages.

III. Research Design

III.1 - Randomized Impact Evaluation of NSP and Sample

Variation in the existence of democratically elected local councils comes as part of the randomized impact evaluation of NSP, which is a multi-year study designed to assess the effects of this community-driven development program across a broad range of economic, institutional, and social indicators. Ten districts with no prior NSP activity that had a sufficiently large number of villages and satisfactory security conditions were selected for inclusion in the evaluation. Although none of these districts are drawn from Afghanistan's southern provinces due to security constraints, they otherwise provide a satisfactory national sample, covering the western, central highlands, northern, northeastern, and eastern regions (see Figure 1). The districts also provide a broadly representative sample of Afghanistan's ethno-linguistic diversity, with five predominantly Tajik districts, four predominantly Pashtun districts, and one predominantly Hazara district. The districts of Balkh and Gulran also contain significant numbers of Uzbek and Turkmen minorities, respectively.⁷

From each of the ten sample districts, NSP facilitating partners selected 50 villages for inclusion in the study, which were randomly assigned to treatment and control groups of equal size. Villages in the treatment group received NSP following the administration of a baseline survey in September 2007, with the remaining 250 control villages not receiving NSP until spring 2012.

To improve statistical balance between villages in the control and treatment groups, a matched-pair cluster randomization procedure was applied. The procedure proceeded in four stages.

1. Village Clusters. To minimize the potential for spillovers between treated and untreated units, villages located within 1 kilometer were grouped in village clusters. Of the 500 sample villages, 107 were assigned to 41 village clusters. The number of villages in each village cluster ranged from two to six.

⁷ An assessment of the demographic and economic characteristics of the 500 villages reveal few substantive differences with those of a random sample of villages surveyed by the 2007-08 National Risk and Vulnerability Assessment.

2. Matched Pairs. In each district, the 50 sample villages were paired into 25 groups of two using an optimal greedy matching algorithm, which matched villages to ensure similarity based on various background characteristics provided that the villages were not in the same village cluster.
3. Assignment of Treatment. In each matched pair, a random number generator was employed to decide which of the two villages would receive NSP. In order to minimize the probability of spillovers biasing estimated impacts, clusters of villages were assigned the same status.
4. Violations of Clustering Restrictions. In a few districts, the large number of clustered villages precluded the co-assignment of all the villages in the same village cluster to the same treatment status. For cases in which assignment of treatment status without a violation of the clustering restriction was not possible, the number of violations was minimized through a simulation approach.

In addition to the variation in the existence of councils, we also introduce variation in the procedures of the food aid distribution (see Section III.3 below).

III.2 - Wheat distribution

To identify the effects of elected councils on local governance, we organized a food aid distribution across villages included in the NSP evaluation. The food aid distribution was organized in June-October 2011, four years after the start of NSP implementation in those districts. Specifically, food aid was delivered to village leaders, who were responsible for distributing it to vulnerable households in the village. The food aid and logistics for the distribution were provided by WFP, and the wheat was donated by USAID. Each village in the study was given enough wheat for one sixth of the village households for half a month.⁸

The aid distribution and associated data collection for the study necessitated three visits to each village:

⁸ The decision rule was not shared with villagers or leaders, who were only informed of the total amount of food aid designated to their village. The exact amount was determined based on WFP guidelines of 81 kg per household of six per month. Village allocations were rounded up to the closest multiple of 50 kg as this was the size of sacks in which wheat was distributed. The average amount of wheat distributed in each village was 1,100 kg.

First Visit: At the first visit, a distribution agent convened a short meeting with village leaders, at which they were informed of the wheat amount to be delivered and asked to prepare a list of recipients and corresponding amounts, to be collected during the aid delivery three days later. As described below in Section III.3, we introduce a randomized variation on how village leaders were selected by the distribution agent.

Second Visit: Three days later, independent contractors hired by WFP delivered the allocated wheat to village leaders and collected the recipient list. In order to limit the effect of observing the wheat distribution on the outcomes of distribution, there was no monitoring of the aid distribution beyond the delivery of wheat to the village leaders identified during the first visit.

Third Visit: Ten days after the wheat delivery, a team of enumerators made an unannounced visit to the village to administer household surveys designed to collect data on the distribution.⁹ These surveys were directed to three groups of villagers: i) a random sample of village households; ii) a random sample of households listed as recipients by the village leaders (listed recipients); and iii) a random sample of households that respondents from the first survey indicated had received wheat but who were not listed by village leaders (peer-reported recipients).¹⁰

Questionnaires were administered to a male and a female respondent in the same household. Survey questionnaires were identical for all three groups of villagers and collected basic demographic and socioeconomic data on the characteristics of the respondent's household, as well as information on the wheat distribution and characteristics of recipient households. An average of 27 male and female surveys were conducted in each village, encompassing an average of 14 surveys of randomly selected village households, 10 surveys of randomly selected listed recipients, and 5 randomly selected peer-reported recipients.

III.3 Variation in Wheat Distribution Procedures

As noted above, elected councils may affect local governance – and, by extension, aid distribution outcomes – either by affecting the composition and/or the behavior of the village leadership. To

⁹ To prevent information about the survey from spreading across villages we surveyed all the villages in a district as quickly as possible, while also surveying them in a sequence that would minimize the geographic spread of information about the survey.

¹⁰ As the surveys of wheat recipients are not representative of the average villager, we use information from these surveys only to measure characteristics of recipients.

isolate these two effects, randomized variation was induced in the procedures for the first visit to villages with elected councils. In a randomly selected half of NSP villages, male and female elected council members were informed of the distribution and requested to select recipients, without reference to other village leaders. In the other half of NSP villages, a distribution agent convened a meeting of ‘village leaders’ and requested that they select recipients and administer the distribution. Village leaders ordinarily include the village headman and members of the customary village council. There was no special request to invite elected council members, so they were included only in villages in which they were considered village leaders.

In addition to the effect of mandating elected council involvement in the distribution in NSP villages, we are also interested in the effect of mandating female involvement in the distribution in non-NSP villages.¹¹ To identify this effect, in half of the non-NSP villages, i.e. villages without elected councils, distribution agents requested that both male village leaders and prominent women in the village were apprised of the distribution and requested to select recipients. In the other half of non-NSP villages, distribution agents asked simply for village leaders to be convened, without explicitly asking women to participate. Villages with and without elected councils were randomly assigned to one of the variations described above. This variation is used below to identify the effects of mandating council management and of mandating female participation in the distribution (See Figure 2).

III.4 Pre-Analysis Plan

In order to limit the risks of mining data and specifications, our analysis follows a pre-analysis plan that describes all the hypotheses, expected outcomes and exact indicators, outlines the appropriate econometric specifications, and references the use of mean effects.¹² The pre-analysis plan was archived using The Experiments in Governance and Politics Network design registration tool on 17 January 2012 while data entry was being carried out, but before any data analysis had started. The plan with the time stamp is available at <http://e-gap.org/design-registration/>.

V. Hypotheses

¹¹ This effect could potentially be important for two reasons. First, widows comprise a vulnerable group of villagers who are potentially more likely to be identified by female village leaders. Second, women are likely to have better information on the food needs of different households as they are in charge of food preparation.

¹² Recent papers that explicitly use a pre-analysis plans include Alatas et al. (2012), Casey et al (2012), Finkelstein et al (2012), Humphreys et al (2012), Olken et al (2010), and Schaner (2011).

In this section we present hypotheses formulated in the pre-analysis plan. The main hypothesis is that the creation of gender-balanced, democratically elected councils, improves governance by making leaders more responsive to the needs of ordinary villagers and less likely to divert public resources for private benefit. The effect may be driven either by elected councils directly assuming responsibility for local governance, indirectly affecting the behavior of customary leaders, or a combination of both. In the context of a food aid distribution, it is expected that these effects will result in a higher proportion of aid reaching needy households (i.e., improved targeting), less embezzlement and nepotism (i.e., less diversion), and a more participatory decision-making process.

Although the creation of elected councils increases the probability that the council manages the distribution, it does not guarantee it. Specifically, distributions in treatment villages may still be managed by the headman or by tribal elders. In order to separate the direct effect of council management from the indirect effects of council creation, we draw upon the randomized variation induced within NSP villages on whether the elected council was explicitly mandated to undertake the distribution. Specifically, the difference between outcomes in these two groups of villages indicates the direction of the direct effect, while the difference between NSP villages without mandated council management and non-NSP villages indicates the direction of the combination of direct and indirect effect. As we expect that both the direct and indirect effects of elected councils will improve governance quality, mandating council management of the distribution is expected to improve targeting, reduce diversion, and increase participation.

An additional institutional change induced by the mandating of council management of the distribution is the mandating of female participation, as both female and male elected council members are asked to participate in overseeing the distribution. To isolate the effect of mandating female participation, we draw upon the randomized variation induced within non-NSP villages as to whether or not women are explicitly invited to participate in the distribution. We hypothesize that, by increasing the number of people involved in the selection and introducing a check on leader behavior from a group outside the customary leadership, mandated female participation will improve targeting, reduce diversion, and increase participation.

The aforementioned hypotheses are formalized in tests spanning five dimensions, grouped in three categories: (i) targeting; (ii) diversion; and (iii) participation. The three hypothesis categories – and

the constituent hypotheses – are presented below. Note that as the direction of the hypothesized effects is the same for all three interventions, the hypotheses are identical regardless of whether the intervention is defined as: (i) mandating that the elected councils oversee the management of the food distribution in a random half of NSP villages under evaluation; (ii) creation of elected councils without explicit requirements on who manages the distribution; (iii) mandating female participation in villages with traditional leadership.

IV.1 - Targeting

Targeting assesses the extent to which the food aid provided to the village leaders for distribution reaches the intended beneficiaries: the most vulnerable households in the village. While some aspects of vulnerability can be captured by objective measures, the limitations of household surveys - as well as differences in how vulnerability is defined - imply that villagers' subjective assessments of which households are the most vulnerable may sometimes be more accurate (Alatas et al. 2012). For this reason we include both objective and subjective measures of targeting.

The quality of objective targeting is assessed by the characteristics of benefit recipients through observable measures of a household's economic welfare, such as asset ownership or whether the household is a member of a vulnerable group (e.g. widow-headed household or otherwise without an able-bodied, working age male member). Better targeting implies that aid recipients score lower on measures of economic welfare compared to other villagers. The respective hypothesis is as follows:

Hypothesis 1: The interventions (mandating council management of the aid distribution; creating elected councils without their mandated involvement in the distribution; mandating female participation) will improve the targeting of provided benefits to vulnerable populations in the village, as measured by characteristics of benefit recipients.

Subjective targeting is assessed by asking community members directly whether they consider wheat recipients as vulnerable or not.

Hypothesis 2. The interventions will improve the targeting by village leaders of provided benefits to vulnerable populations in the village, as assessed subjectively by villagers.

IV.2 - Diversion

Another important measure of food aid distribution outcomes is the extent to which aid provided for vulnerable households is diverted for the private benefit of village leaders. This may manifest itself either in embezzlement or nepotism.

Embezzlement represents the direct transfer of aid to the households of village leaders, either those directly involved in the distribution or those, who otherwise form part of the village leadership. By increasing the accountability of the village leaders to the village population and by increasing the checks and balances on the authority of leaders the interventions should reduce the diversion of resources by village leaders. The respective hypothesis is as follows:

Hypothesis 3. The interventions reduce embezzlement by village leaders.

Nepotism represents the distribution of aid to relatives and friends of village leaders and is captured by the following hypothesis:

Hypothesis 4. The interventions reduce nepotism in distribution of benefits by village leaders.

IV.3 - Participation

The degree of participation in the distribution describes the extent to which villagers – rather than just village leaders – and marginalized groups, such as women, participate in the process of selecting the recipient households. It also describes the transparency of the process – that is, whether villagers were informed of the distribution outcomes – and whether there were any disputes among villagers and/or the village leaders about the distribution. Our expectation of how the interventions will affect such outcomes are formalized in the following hypothesis:

Hypothesis 5. The interventions will result in more participatory decision-making processes.

V. Methodology

To test the hypotheses outlined above we use villages in which aid distribution was performed by traditional leaders as the baseline group and compare the outcomes in this group with the outcomes in (i) villages in which elected councils were put in charge of the distribution; (ii) NSP villages in which elected councils were not mandated to manage the distribution; and (iii) non-NSP villages in which female involvement was mandated. In particular, we estimate the following regression:

$$Y_{vi} = \alpha + \eta F_v + \lambda N_v + \mu M_v + \varphi_p + \varepsilon_{vi} \quad (1)$$

where Y_{vi} is the outcome of interest for observation i in village v ,¹³ M_v is a dummy variable that equals one if an NSP village v was assigned to have its distribution managed by the elected council and zero otherwise; N_v is a dummy variable that equals one if village v is an NSP village in which the elected council was not mandated to manage the distribution and zero otherwise; F_v is a dummy variable that equals one if a non-NSP village v is assigned to mandated female involvement and zero otherwise; φ_p is the village-pair fixed effect, and ε_{vi} is the error term. Following Bruhn and McKenzie (2009), village-pair fixed effects are included to account for the use of pair-wise village matches in the allocation of treatment. Standard errors are clustered by village-cluster to account for correlation of residuals within village-clusters due to non-independence of assignment. Table A1 in the Appendix describes in detail all the indicators that we use to test each of the five hypotheses. In Table A2 we indicate several cases when we deviate from the pre-analysis plan along with the exact explanation for the deviation, which is usually due to a misspecification in the plan.

Identifying Wheat Recipients

Hypothesis 1 and the first indicator for Hypothesis 4 prescribe the comparison of recipients with other villagers and thus necessitate the identification of recipients. However, as the distribution is not directly observed, there is no definitive means to identify recipients. We use information provided by village leaders and survey respondents to get at three different ways of inferring recipients: (i) lists of recipients prepared by village leaders; (ii) self-reports by male and female survey respondents that their household received wheat; and (iii) peer-identified recipients that were indicated as recipients by other male and female survey respondents.¹⁴

As there is no *a priori* reason to believe that one of these sources is more reliable than the other, three sub-samples of ‘recipient’ households are constructed:

¹³ Table A1 provides information on the construction of indicators and the corresponding units of analysis (household or individual respondent) and subsamples (random sample of households, subsample of wheat recipients, or the combination of both).

¹⁴ The sets of households within a village suggested by these sources could be partially intersecting.

- i. *Self-Reported Recipients*: Households in which either the male or female respondent self-reports that the household received wheat from the recent distribution (regardless of whether the household is designated by local leaders as a recipient);
- ii. *Listed Recipients*: Households which are listed as recipients by the local leader(s) (regardless of whether the household self-reports as such);
- iii. *Peer-Reported Recipients*: Households that other respondents designate as recipients (regardless of whether the household self-reports or is designated by village leaders).

To ensure that the analysis does not depend on different assumptions concerning which of the sub-samples best represents the actual group of recipients, all hypotheses tests that subsume information on the characteristics of recipients are conducted separately using the three sub-samples.

Mean effects

For each hypothesis, there are often several corresponding outcomes and for some indicators there are alternative definitions of wheat recipients. To examine the treatment effect on all indicators pertaining to each hypothesis and to account for multiple hypotheses testing, we estimate the overall average treatment effect. The average treatment effect is estimated by combining the effects on each of the constituent indicators (and each of the definition of recipient households) using the approach in Kling and Liebman (2004). This ‘mean effect index’ is constructed as the mean of the treatment effects for each of the individual outcomes (standardized to have a mean of zero and variance of one), with standard errors estimated using the variance-covariance matrix for the system of seemingly unrelated regressions for all individual outcomes.¹⁵ Thus, the magnitude of the mean effect can be interpreted as the effect of an intervention measured in standard deviations.

VI. Data

Basic information regarding the meeting with village leaders during the first visit and wheat delivery during the second visit was recorded by the distribution agents. The reports indicate that there was high level of compliance with variations in the first visit procedures. The share of village leaders who identified themselves as CDC members was 67% in villages in which there was no specific requirement for CDC participation and 90% in villages with such a requirement (see Table 1).

¹⁵ For further details, see Section IV.ii of the pre-analysis plan.

In terms of female participation, at least one woman was present in 91 out of 125 non-NSP villages where women were required to participate (and the average number of women present was 5, which is close to the number of women that participated in NSP villages with mandated council participation. The number of participating women is not much lower than the number of participating male leaders, which was about 8 in all types of villages.

Due to adverse security conditions, wheat was not delivered to 9 villages out of the original 500 villages. Whenever possible, wheat was delivered to the village or to the nearest accessible location. If this was not feasible due to security or road conditions, village leaders were requested to pick up the food aid in the district center and organize the delivery themselves. Wheat was not delivered to a few villages where village leaders were not able to organize transportation. The attrition and the mode of delivery were not correlated with the treatment status or with the group to which a certain village was assigned.

Most of the data used in the analysis comes from the surveys conducted after the wheat distribution. Table 2 presents information on the number of surveys completed in each type of village. Although the number of villages in which wheat could not be delivered was relatively low, there were numerous villages in which wheat was delivered but which could not be surveyed due to security or logistical problems. In total, male surveys were conducted in 400 villages and female surveys in 356 villages that received wheat. There was no significant difference between different groups of villages in the number of surveys per village that were administered to the random sample of village households and to listed recipients. However, the number of surveys of peer-reported recipients was somewhat higher in non-NSP villages (the difference being significant at the 10 percent level), which suggests that the official list of wheat recipients was more accurate in NSP villages.

Information on the households that were indicated as vulnerable *ex ante* comes from the endline survey conducted as a part of the impact evaluation of NSP. The survey was conducted a week before the first visit related to the wheat distribution. The survey was administered to the male head of household and his wife (or to another senior woman in the same household) separately in ten randomly selected households in each village. The respondents were asked, among other things, to indicate five households that they considered as the most needy in the village. The answers to

this question are used to construct an indicator that measures the share of respondents that indicated a recipient household as needy.

We complement this data with qualitative information from the enumerators, who have collected the data and who had an opportunity to interact with ordinary villagers and village leaders, and thus, could provide additional information on the decision-making process in villages. This qualitative data also suggest compliance in terms of who was in charge of the distribution. In villages with no CDC the village headman would oversee the distribution, along with village elders. In the case where CDCs were present both the head of the CDC and the village headman were involved suggesting joint participation, which was only curtailed when the CDC was explicitly put in charge.

Qualitative evidence also confirms that women were generally not involved at all in the process unless mandated. In the cases where women were involved, qualitative reporting suggested that they were more aware of needy households and better at identifying poor or widowed households than the men.

Qualitative reports indicate that villagers were rarely actively involved in the decision making process over the wheat. Ordinary heads of household usually would just get called to receive the wheat allocated to them, and even in the case that they were present during the deliberations over the distribution, their role would be just observational without any active involvement in the decision-making over distribution amounts. According to the qualitative reports, leaders purposefully would keep them out to avoid conflict and disagreement. People, however, had a good knowledge of who was in charge of the distribution process.

VII. Results

VII.1 - Targeting

Objective Targeting

Our first hypothesis posits that the interventions – mandating that the elected council oversees the distribution, creation of the councils without explicit requirements on who manages the distribution, and mandating female participation in villages with traditional leadership – will improve targeting of aid to needy villagers as measured by observable characteristics. To test this prediction we look at the measures of assets, vulnerability status, and an omnibus indicator of economic status (which incorporates information on assets, vulnerability, education and the

necessity to borrow money for food). In particular, we test whether the interventions increases the likelihood that the recipient's measures of assets and economic status fall below the median in the village and that the recipient belongs to a vulnerable group. As described in Section V, we use three alternate definitions to identify recipients: (i) self-reported recipients; (ii) listed recipients; and (iii) peer-reported recipients.

The results presented in Table 4 indicate that in villages in which the distribution was managed by the elected council both self-reported and listed recipients were more likely to belong to a vulnerable group (by 3 and 5 percentage points respectively). In addition, self- and peer-reported recipients were more likely to be below the median in the measure of economic status (by 6 and 4 percentage points respectively). The mean effect shows that objective targeting was significantly better in villages with mandated elected council participation as compared to villages with traditional leadership without mandated female participation, although the effect is modest in size - 8 percent of a standard deviation.

In villages in which the elected councils were created, but there was no explicit requirement for the council to manage the distribution, listed recipients were more likely to be below the median on measures of assets (by 4 percentage points) and economic status (by 6 percentage points), whereas peer-reported recipients were 4 percentage points more likely to be below the median on measures of economic status as compared to wheat recipients in villages with traditional leadership without mandated female participation. However, the mean effect for NSP villages without mandated elected council is not statistically significant.

In non-NSP villages with mandated female participation self- and peer-reported recipients were more likely to be below the median in the measure of economic status (by 6 and 4 percentage points respectively) and self-reported recipients were 4 percentage points more likely to score below the median on the measure of assets as compared with villages in which female participation was not mandated. The mean effect for the mandated female involvement, however, is not statistically significant.

Overall, the results of the analysis indicate that targeting, when measured by objective characteristics, is substantially improved if the distribution is managed by elected councils rather than traditional leaders. The results for individual indicators also provide some evidence that objective targeting is better in villages in which councils were created, but not mandated to manage

the distribution and in non-NSP villages in which female participation was mandated, but the mean effects for these two interventions are not statistically significant.

Subjective Targeting

Our second hypothesis posits that the interventions will improve aid targeting to vulnerable populations in the village, as assessed subjectively by villagers. The results presented in Table 4 indicate that in villages in which elected councils were mandated to manage the distribution there is a weakly significant effect suggesting that respondents were more likely to state that the distribution had benefited vulnerable households.¹⁶ There are no significant differences between villages in which elected councils were created, but not mandated to manage the distribution. However, the mean effect of mandating councils to manage the distribution is not statistically significant.

Mandating female involvement in non-NSP villages increases the probability of a listed recipient being among those villagers identified *ex-ante* as vulnerable by 1 percentage point, but it decreases the probability that recipients are *ex-post* perceived as vulnerable by 2 percentage points.¹⁷ The mean effect for this intervention is not statistically significant.

Overall, there are no general effects of any of the interventions on subjective measures of targeting.

VII.2 - Diversion

Embezzlement

Our third hypothesis posits that the interventions will reduce embezzlement of food aid by village leaders. Embezzlement is measured here by the incidence of reports from respondents of wheat being retained, sold, or revoked by village leaders and by the difference between the amounts allocated to according to the list of wheat recipients prepared by the leaders and the amounts recipients actually received. The last measure has an advantage of not being based on the perceptions of respondents, which makes it least likely to be subjected to survey bias.

¹⁶ This variable is the first principal components of binary indicators reporting whether, in the view of the respondent, all deserving households received wheat; no recipients are non-vulnerable; wheat was distributed primarily to vulnerable households; and an ordinal measure assessing the fairness of the distribution.

¹⁷ Note that the levels of the *ex-ante* and *ex-post* indicators are not comparable, as the former is the share of male and female household respondents in the survey conducted prior to wheat distribution that indicated a household as vulnerable before wheat distribution, while the latter is the share of respondents that identified recipients as vulnerable in the survey conducted after the wheat distribution.

Table 5 presents estimates of the effect of the interventions on measures of embezzlement. There are no statistically significant differences for any of the embezzlement measures between villages where the elected councils managed the distribution and those in which traditional leaders was managed it. However, in villages where elected councils were created but there was no explicit requirement for the councils to manage the distribution, respondents were 4 percentage points more likely to report that village leaders retained wheat. Most importantly, the presence of an elected council that was not mandated to undertake the distribution increased the discrepancy between the amount of wheat that was allocated to respondents and the amount of wheat that they received by 3 kg. The mean effect index shows that embezzlement was higher in NSP villages where the elected council is not mandated to oversee the distribution by 10 percent of a standard deviation.

In villages with mandated female involvement respondents were 5 percentage points more likely to report that village leaders retained some wheat and 3 percentage points more likely to report that village leaders sold some wheat. The mean effect indicates that embezzlement was higher in non-NSP villages with mandated female participation by 10 percent of a standard deviation.

Overall, the results indicate that there is no difference in embezzlement in villages in which either the elected council or the traditional leaders are specifically designated as the body responsible for aid distribution. However, the creation of an elected council without a clear assignment of responsibility for the aid distribution increases the probability of the village leadership embezzling the food aid. Embezzlement also increases in case of mandated female participation in the process.

Nepotism

Our fourth hypothesis posits that the interventions will reduce nepotism in the distribution of benefits by village leaders by reducing the influence of patronage-based institutions in the decision-making process. The extent of nepotism is measured by whether a recipient self-identifies as a relative of the village leadership;¹⁸ reports by other respondents as to whether a recipient is linked to the village leadership; perceptions of non-recipients as to whether the distribution primarily

¹⁸ We subtract from this measure the mean in the random sample of respondents in the village to take into account that the creation of the councils itself may lead to an increase in the number of village leaders and, as a result, to an increase in the number of villagers connected to village leaders (including non-recipients).

benefited households connected to influential villagers; and by whether wheat was reported to have been given to village leaders not directly involved in the distribution.

Results reported in Table 6 indicate that the only statistically significant result is that in villages in which the council was mandated to manage the distribution the share of self-identified recipients who report being connected to village leaders is lower by 3 percentage points. The mean effects on the extent of nepotism in aid delivery, however, are not statistically significant for any of the three interventions. Thus, as in the case with subjective measures of targeting, there is no difference in the extent of nepotism between non-NSP villages where customary leaders managed the distribution and that in the other three groups of villages.

VII.3 – Participation

Our fifth hypothesis posits that the interventions result in more participatory decision-making processes. To test this hypothesis we look at whether the recipient selection was made by more than one individual; whether villagers were consulted; the number of people involved in the recipient selection; whether the respondent was involved; whether women were involved; whether there were any conflicts related to the distribution; and whether the identity of recipients was publicly announced.

Table 7 presents estimates of the effect of the different interventions on participation. Mandating that the elected council manages the aid distribution increases, by 13 percent, the number of people involved in the selection, while also increasing the incidence of conflicts related to the distribution by one percentage point.

The presence of an elected council without a mandate to oversee the distribution process reduces by 9 percentage points the incidence of villagers either being involved or consulted in the selection process and also reduces by 4 percentage points the probability that a respondent is involved in the selection. The mean effect indicates that participation was lower in villages in which a council existed, but was not made responsible for the wheat distribution by 7 percent of a standard deviation. Mandating female involvement reduces by 9 percentage points the incidence of villagers either being involved or consulted in the selection process.

The mean effects index values indicate that, overall, the decision-making processes in non-NSP villages with mandated female participation and NSP villages where the elected council was mandated to manage the aid distribution was broadly similar to that in villages in which the distribution was managed by traditional leaders. However, participation was significantly lower in villages in which the elected councils existed, but were not mandated to oversee the distribution.

VIII. Discussion

Our results indicate that if the food aid distribution was managed by democratically elected councils, this led to an improvement in the quality of targeting (as measured by objective measures), but it had no significant effect on subjective measure of targeting, embezzlement, nepotism, or villagers' participation, as compared with villages in which traditional leaders managed the distribution. These results indicate that democratization has a positive effect on the quality of governance.

In villages in which democratically elected councils were created in parallel to traditional governance structures, but there was no explicit requirement that the food aid distribution be managed by the council, however, this led to a higher level of embezzlement and to a lower level of villagers' participation in the decision-making process as compared with villages in which only traditional governance structures exist, while there was no difference in terms of aid targeting or nepotism. These results indicate that a lack of clear assignment of responsibilities has a negative effect on the quality of governance, which in turn can completely undo the positive effects of democratization. Qualitative reports of the enumerators provide consistent evidence and suggest that there was more wheat embezzled by the leaders when both the CDC and the traditional leaders were involved in the distribution versus when one or the other was in charge, as everyone involved felt entitled to take a cut for themselves.

We also find that mandating female participation – which was randomized across villages without elected councils in order to isolate the effect of involving women in the process – had effects broadly similar to those found when councils exist but are not mandated to manage the distribution. Specifically, levels of embezzlement were higher in the non-NSP villages with mandated female participation, but there was no difference in terms of aid targeting, nepotism, or villagers' participation in the decision-making process. An increase in embezzlement in this case,

however, is not entirely surprising if one took into account the fact that female leaders in non-NSP villages are very likely to be the wives or married sisters or daughters of the male village leaders. Thus, mandated female participation increased the number of people who represent the households of village leaders during the decision-making process, increasing the number of stakeholders taking a cut in this process.

Our results on the positive effect of democratization on the quality of governance are in line with findings from China by Martinez-Bravo et al. (2012). The similarity in findings is especially notable, if we take into account the differences in context. Firstly, in China village heads, that were previously appointed, became elected, whereas in Afghanistan the elected village council was organized in addition to the traditional village governance bodies. Secondly, the institutional change in China was implemented from within rather than being exogenously imposed. Finally, China at the time of the transition was a strong authoritarian state in a period of peace rather than a weak state amidst war and turmoil. Thus, the promise to hold reelections was likely to be credible, so that the behavior of elected officials was likely to be affected by reelection considerations. In fact, Martinez-Bravo et al. (2012) show, that the effects of democratization are primarily driven by reelection incentives, rather than by the improved selection of politicians. In Afghanistan, however, although there was a provision that the councils will be reelected in three years, this prospect was not entirely credible. In fact, by the end of 2012 no reelections had been held in the evaluation villages. Since the reelection concerns of the CDC members were likely to be very weak this suggests that the ability for villagers to select better candidates is the main driver of the effect of elections in this context. This result complements findings of Martinez-Bravo et al (2012) who provide suggestive evidence that in the context of democratization in China the effect of the elections is driven primarily by an increase in leader incentives, rather than better selection of the leaders.

One important difference between traditional leaders and elected council members is the difference in their time horizons as decision-makers (Olson, 2000). For traditional leaders their position is usually life-long, so they are likely to have longer time-horizons than the members of the elected council, who hold this position only temporarily and do not have clear reelection incentives. A longer time-horizon is likely to put additional limits on the rent-seeking behavior of village leaders. However, this effect should lead to higher levels of embezzlement when elected councils are made

responsible for the aid distribution, as in this case only agents with short time horizon are making decisions. Thus, the difference in the time-horizon of decision makers cannot fully explain our results.

The result that the creation of democratically elected councils, which came as a part of NSP, without additional effort to clearly assign responsibilities for particular tasks, has a negative effect on the quality of local governance is consistent with the findings on the effect of NSP on the perceptions of local governance based on surveys conducted prior to the food aid distribution. To estimate the effect of NSP on the attitudes toward local governance, we use information collected during both the midline survey, conducted in May-October 2009, and the endline survey, conducted in May-October 2011, a week before the first visit linked to the wheat distribution. We estimate the following regression:

$$Y_{tvi} = \alpha + \beta_1 \cdot (T_v \times \tau_1) + \beta_2 \cdot (T_v \times \tau_2) + \gamma \cdot \tau_2 + \varphi_p + \varepsilon_{tvi} \quad (2)$$

where Y_{tvi} is the outcome of interest for household i in village v in the midline (1) or endline (2) Survey $t \in \{1,2\}$, T_v is the village treatment dummy, τ_t is the dummy for t , φ_p is the village-pair fixed effect, and ε_{tvi} is the error term. Thus, β_1 corresponds to the impact of NSP at midline and β_2 corresponds to the impact and endline. As in the main regressions we include village-pair fixed effects and cluster standard errors at the village-cluster level.

The results of this analysis (see Table 8) indicate that NSP had no significant effect at the perceptions of local governance quality in the midline survey, at the time when newly elected councils had the task of managing development projects clearly assigned to them. However, there is strong evidence of a negative impact in the endline survey, which was conducted after the completion of the development projects, that is to say after the task for which the councils were officially responsible was over.

The negative effect on the perceptions of the quality of local governance might not reflect actual worsening of government quality. Instead, it could be driven by the fact that increased involvement of villagers in the village-level decision making process made them more willing to speak up against village leaders or that observing the work of elected councils might have raised the expectations of the villagers regarding the quality of work of traditional leaders. Some of the perception-based results related to the quality of aid distribution can also be driven by such effects. However, the

results on the increase in embezzlement that are based on the comparison of allocated and received amounts of wheat are harder to reconcile with these explanations, suggesting actual deterioration in the quality of governance.

Indeed, according to the qualitative evidence from the field, people were aware of leaders embezzling wheat for themselves and opposed it, but felt there was nothing they could do about it. In qualitative accounts people would say that these village leaders already get annual payment for their services from the villagers in the form of agricultural products or livestock and that should be considered enough compensation, so that village elites should not take part of the food aid that was meant for the poor. They certainly did not agree with leaders getting a higher share than what was allocated to a poor household, as these elites were influential, rich people who own land. The elites in turn felt entitled to part of all the aid that comes to the village, claiming that they see it as a fee-for-service-performed.

Improvements in targeting that come as a result of making the councils responsible for the food aid distribution may be driven by a reduction in shirking of the leaders responsible for food aid distribution. Determining which households should receive wheat requires a certain degree of effort and when responsibilities are not clearly assigned, leaders can free ride on each other, which results in worse targeting. However, the results on embezzlement cannot be explained by differences in the levels of shirking and instead indicate that the creation of elected councils without clear assignment of responsibilities leads to an increase in rent-seeking.

In interpreting the findings it is important to bare in mind that NSP involves not only the creation of democratically elected councils, but also the provision of block grants to finance development projects. Thus, the observed difference between villages with traditional governance structures and villages with elected councils can be potentially explained by the effects of the influx of resources, provided by NSP, rather than by the differences in the governance structure. However, this explanation cannot explain the effects of making councils responsible for the aid distribution and for mandated female participation, since in this case we compare villages for which the amount of resources provided by NSP does not vary. Thus, the observed effects on governance quality are likely to be driven by the creation of village councils, rather than by the provision of resources by NSP.

Our results suggest that the creation of multiple institutional structures with no clear hierarchy can lead to institutional competition that hampers the quality of governance instead of creating additional checks and balances that enhance efficiency. The conclusion is broadly consistent with the results in Shleifer and Vishny (1993) who argue that institutional competition and collusion are important determinants of corruption. In particular, uncoordinated competition for rents between different officials leads to the highest level of corruption. Relatedly, Persson, Roland and Tabellini (1997) argue that separation of powers is an effective way of preventing abuse of power, but only if it provides checks and balances, i.e. if the two sets of distinct institutions have different interests and are required to reach joint agreement over decisions. If each makes its own claim over resources, then the public suffers the consequences of inefficiencies and absence of accountability. In both settings making only one institution (or official) responsible for a policy can improve outcomes by preventing inefficient institutional competition. Our results thus reinforce the finding that separation of powers can lead to sub-optimal outcomes if different governing bodies make independent claims on available resources and that these inefficiencies can be resolved by clear assignment of responsibilities.

Our results contrast with the findings in the literature on the transplantation of institutions. The democratically elected councils in the Afghan context are externally transplanted, as part of a community driven development program. Most existing works argue that institutions that develop internally are much more likely to be effective than institutions that are externally imposed as the latter are rarely attuned to the country-specific context in which they are operating (Hayek 1960; Berkowitz, Pistor, and Richard 2003; Rodrik 2007). An exception is Acemoglu et al. (2011), which argues that exogenously imposed reforms may be successful, but only when they are radical enough, whereas partial reforms are counterproductive as pre-existing power structures can by-pass newly established institutions (Acemoglu and Robinson 2008). However, the reforms undertaken in the NSP context in Afghanistan would qualify as partial rather than radical since they did not uproot existing traditional local government structures but rather created elected parallel ones. Thus, our results indicate that transplantation of democratic institutions may have a positive effect even if it is not associated with a radical change in other domains.

IX. Conclusion

We exploit randomized variation in the structure of local governance institutions to examine the effect of the creation of democratically elected councils on the quality of local governance in Afghan villages. We use the outcomes of a food aid distribution as a measure of local leader performance. To better understand the mechanisms that drive the effect of council creation, we introduce random variation in whether the councils are explicitly mandated to oversee the food aid distribution or not. We also introduce random variation in whether women are required to be involved in the food aid distribution in those villages that do not have elected councils.

Our findings suggest that if elected councils are explicitly put in charge of the food aid distribution, it leads to an improvement in the quality of targeting, without any adverse effects in terms of embezzlement or nepotism. However, if the responsibility for managing the food aid distribution is not clearly assigned, the creation of elected councils, which exist as parallel structures to customary local governance, leads to higher levels of embezzlement and has no effect on the quality of targeting, nepotism, and participation levels in the decision-making processes. Similarly, in villages without elected councils, the distribution outcomes are better when institutional responsibility is designated clearly to the customary leaders, rather than being shared with prominent village women.

Our results show that once responsibilities are clearly assigned, democratization improves the quality of local governance, which is in line with findings by Martinez-Bravo et al. (2012). The results also show that the existence of parallel institutions can lead to underperformance rather than increased accountability due to additional checks and balances if responsibilities are not clearly delineated, which is in line with the theoretical literature that suggests that competition for rents between different government institutions or officials can lead to inefficient outcomes that might be improved by clear assignment of responsibilities (Shleifer and Vishny, 1993; Persson, Roland and Tabellini 1997). Finally, our results provide evidence that changes in local governance that are externally imposed by a community driven development program may lead to actual changes in the quality of governance. This finding contrasts with most of the previous literature on the effects of CDD, which usually finds very limited effect on local institutions and collective action (e.g. Labonne and Chase 2008; Casey et al 2012; Avdeenko and Gilligan 2012).¹⁹

¹⁹ A notable exception is Fearon et al (2011), which finds some evidence of the effect of collective action.

Although our results show how the creation of democratically elected councils affects the outcomes of a food aid distribution, the limitation of our study is that we do not observe the decision-making process itself, so we do not have information on the exact mechanism through which the competition between different governance bodies translates into inferior quality of local governance. Future research may shed light on these mechanisms and provide better understanding on the circumstances in which institutional competition has a negative effect on the quality of governance and the ways to overcome this problem.

References

- Acemoglu, D., and J. Robinson (2000). “Why Did the West Extend The Franchise? Democracy, Inequality and Growth In Historical Perspective,” *Quarterly Journal of Economics*, 115(4), 1167 – 1199.
- Acemoglu, D., and J. Robinson (2001). “A Theory of Political Transitions,” *American Economic Review*, 91(4), 938 – 963.
- Acemoglu, D., and J. Robinson. (2008). “Persistence of Power, Elites, and Institutions,” *American Economic Review*, 98 (1): 267 – 293.
- Acemoglu, D., S. Johnson, and J. Robinson (2001). “The Colonial Origins of Comparative Development: An Empirical Investigation,” *American Economic Review*, 91 (5): 1369 – 1401.
- Acemoglu, D., D. Cantoni, S. Johnson, and J. Robinson (2011). “The Consequences of Radical Reform: The French Revolution,” *American Economic Review*, 101 (7): 3286–3307.
- Alatas, V., A. Banerjee, R. Hanna, B. Olken and J. Tobias (2012). “Targeting the Poor: Evidence from a Field Experiment in Indonesia,” *American Economic Review*, 104(2): 1206-1240.
- Avdeenko, A. and Gilligan, M.J. (2012) “Community-Driven Development and Social Capital: Lab-in-the-Field Evidence from Sudan,” *Working paper*.
- Barfield, T. (1984). *Weak Links on a Rusty Chain: Structural Weaknesses in Afghanistan's Provincial Government Administration*. Berkeley, CA: Institute of International Studies, University of California, Berkeley.
- Beath, A., Christia, F., Enikolopov, R., & Kabuli, S. (2010). *Estimates of Interim Impact from First Follow-Up Survey - Randomized Impact Evaluation of Phase-II of Afghanistan's National Solidarity Programme (NSP)*. Kabul: World Bank.
- Beath, A., Christia, F., & Enikolopov, R. (2012a) “Do Electoral Rules Affect Who Gets Elected?: Evidence from a Field Experiment in Afghanistan”. *Working Paper*.
- Beath, A., Christia, F., & Enikolopov, R. (2012b). “Empowering Women: Evidence from a Field Experiment in Afghanistan,” *Working Paper*.
- Besley, T., and M. Kudamatsu (2006). “Health and Democracy,” *American Economic Review*, 96 (2): 313–318.

- Berkowitz, D., K. Pistor, and J. Richard (2003). “The Transplant Effect,” *American Journal of Comparative Law*, 51 (1): 163–203.
- Boesen I. (2004), “From Subjects to Citizens: Local Participation in the National Solidarity Programme,” AREU Working Paper Series.
- Boix, C. (2003). Democracy and Redistribution. Cambridge University Press: New York.
- Brick, J. (2008c). *Investigating the Sustainability of Community Development Councils in Afghanistan*. Kabul: Afghanistan Research and Evaluation Unit.
- Casey, K., R. Glennerster, and E. Miguel (2012). “Reshaping Institutions: Evidence on Aid Impacts Using a Pre-Analysis Plan,” *Quarterly Journal of Economics*, 127 (4): 1755 - 1812.
- Chattopadhyay, R.. and E. Duflo (2004), “Women as Policy Makers: Evidence from a Randomized Policy Experiment in India,” *Econometrica*, 72 (5): 1409-1443.
- Barakat, S. (2006). *Mid-term Evaluation Report of the National Solidarity Programme (NSP), Afghanistan*. York: Post-War Reconstruction & Development Unit (PRDU), The University of York.
- Bardhan, P., and D. Mookherjee (2000), “Capture and Governance at Local and National Levels,” *American Economic Review*, 90 (2): 135–139.
- Fearon, J., M. Humphreys and J. Weinstein (2009), “Development Assistance, Institution Building, and Social Cohesion after Civil War: Evidence from a Field Experiment in Liberia.” *Working Paper*.
- Fearon, J., M. Humphreys and J. Weinstein (2011), “Democratic Institutions and Collective Action Capacity: Results from a Field Experiment in Post-Conflict Liberia,” *Working Paper*.
- Finkelstein, A., S. Taubman, B. Wright, M. Bernstein, J. Gruber, J. Newhouse, H. Allen, K. Baicker, and the Oregon Health Study Group (2012), “The Oregon Health Insurance Experiment: Evidence from the First Year,” *Quarterly Journal of Economics*, 127 (3): 1057-1106.
- Humphreys, M., R. de la Sierra and P. van der Windt (2012), “Social and Economic Impacts of Tuungane,” *Mimeo: Colombia University*.
- Kakar, P. (2005), “Fine-Tuning the NSP: Discussions of Problems and Solutions with Facilitating Partners,” AREU Working Paper.
- Labonne, J. and R. Chase (2008) “Do Community-Driven Development Projects Enhance Social

Capital? Evidence from the Philippines,” *World Bank Policy Research Working Paper*.

Lizzeri, A., and N. Persico (2004): “Why Did the Elites Extend the Suffrage? Democracy and the Scope of Government, With an Application to Britain’s Age of Reform,” *The Quarterly Journal of Economics*, 119(2), 705–763.

Martinez-Bravo, M., N. Qian, and Y. Yao (2012), “The Effects of Democratization on Public Goods and Redistribution: Evidence from China,” *NBER Working Paper*.

Nojumi, N., Mazurana, D., & Stites, E. (2004). Afghanistan's Systems of Justice: Formal, Traditional, and Customary. *Working Paper: Feinstein International Famine Center, Youth and Community Program, Tufts University*.

Olken, B., J. Onishi, and S. Wong (2010), “Indonesia's PNPM Generasi Program: Interim Impact Evaluation Report”. *Mimeo: World Bank*.

Olson, M. (2000) *Power and Prosperity: Outgrowing Capitalist and Communist Dictatorships*, Basic Books: New York.

Pain, A, and Kantor, P. (2010). Understanding and Addressing Context in Rural Afghanistan: How Villages Differ and Why. Kabul: AREU.

Pande, R., and Udry, C. (2006). Institutions and Development: A View from Below. In R. Blundell, W. Newey, & T. Persson, *Advances in Economics and Econometrics: Theory and Applications (Vol. 2)* (pp. 349-412). Cambridge University Press.

Papaioannou, E., and G. Siourounis (2008), “Democratisation and Growth,” *Economic Journal*, 532: 1520–1551.

Persson, T., and G. Tabellini (2007), “The Growth Effect of Democracy: Is it Heterogenous and How Can it Be Estimated?” *Working Paper*.

Persson, T., G. Roland, and G. Tabellini (1997), “Separation of Powers and Political Accountability,” *Quarterly Journal of Economics*, 112 (4): 1163-1202.

Rahmani, A. (2006). *The Role of Religious Institutions in Community Governance Affairs: How are Communities Governed Beyond the District Level?* Budapest, Hungary: Open Society Institute, Central European University Center for Policy Studies.

- Reuveny, R., and Q. Li (2003): “Economic Openness, Democracy, and Income Inequality,” *Comparative Political Studies*, 36(5): 575–601.
- Rodrik, D. (1999), “Democracies Pay Higher Wages,” *The Quarterly Journal of Economics*, 114(3): 707–738.
- Schaner, S. (2012) “Intrahousehold Preference Heterogeneity, Commitment, and Strategic Savings”, Working Paper.
- Shleifer, A. and R. Vishny. (1993) “Corruption,” *Quarterly Journal of Economics*, 108 (2): 599-617.
- Sokoloff, K., and S. Engerman (2000), “History Lessons: Institutions, Factor Endowments, and Paths of Development in the New World,” *Journal of Economic Perspectives*, 14(3): 217-232.
- Tavares, J., and R. Wacziarg (2001), “How Democracy Affects Growth,” *European Economic Review*, 45(8): 1341–1378.

Figure 1 - Ten Sample Districts

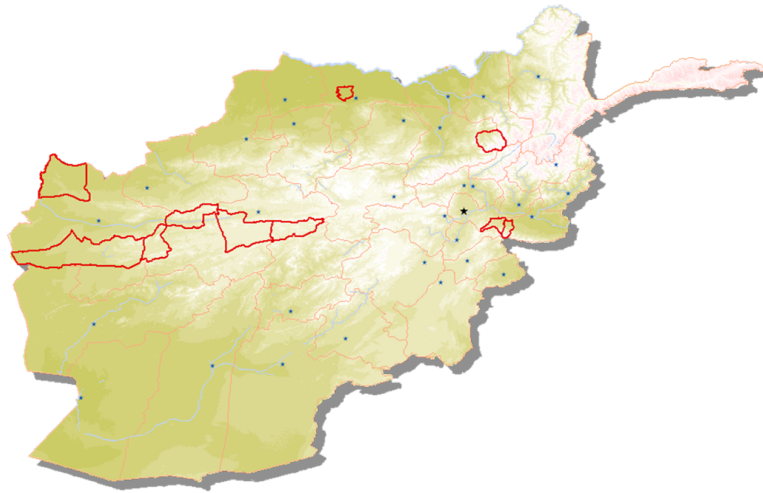


Figure 2: Variation in Distribution Procedures

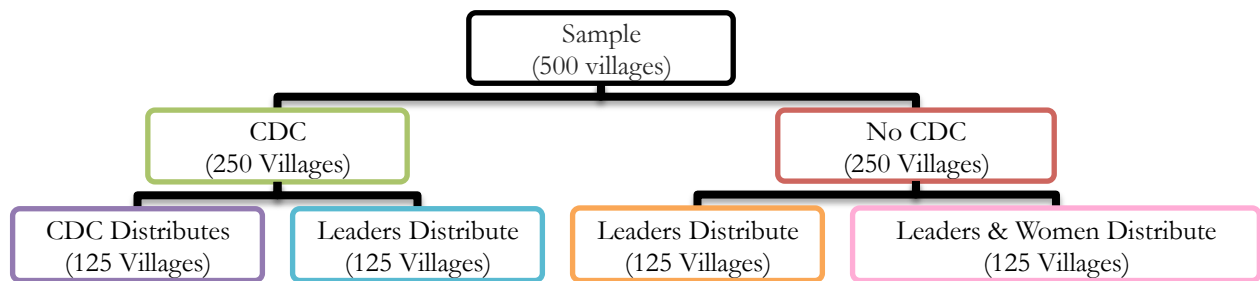


Table 1: Wheat Delivery Process

	Non-CDC Villages		CDC Villages	
	Unconstrained	Female	Unconstrained	CDC
Number of villages	125	125	125	125
Mean Number of Men Present at First Visit	7.9	8.1	8.1	7.9
Share Of Men Identified As CDC Members	2%	3%	67%	90%
Women Present at First Visit Meeting	6	91	8	100
Mean Number of Women Present at First Visit	0.2	4.7	0.4	5.2
Location of Wheat Delivery				
Not Delivered	2	2	4	1
In Village	33	37	38	39
Near Village	12	8	7	7
District Center	78	78	76	78
Wheat Delivered but Not Distributed	15	12s	18	17

Table 2: Survey Coverage

	Control Villages		Treatment Villages	
	Unconstrained	Female	Unconstrained	CDC
Panel A: Number of Respondents				
Random Male Surveys	1539	1387	1337	1450
Random Female Surveys	1397	1276	1206	1257
Listed Recipients Male Surveys	1021	975	968	951
Listed Recipients Female Surveys	895	893	845	808
Peer-Reported Rec. Male Surveys	301	305	247	271
Peer-Reported Rec. Female Surveys	302	299	255	262
Panel B: Survey Attrition (village level)				
Missing Random Male Surveys	20	27	28	25
Missing Random Female Surveys	31	36	38	39
Missing Listed Recipients Male Surveys	28	28	30	31
Missing Listed Recipients Female Surveys	38	37	40	45
Missing Peer-Reported Rec. Male Surveys	64	62	76	68
Missing Peer-Reported Rec. Female Surveys	65	67	75	75

Table 3: Effects on Objective Measures of Targeting

Outcomes	Mean Value in Non-CDC without Mandated Women's Part.	CDC with Mandated CDC Management	CDC without Mandated CDC Management	Non-CDC w/ Mandated Women's Participation	Obs.	p-value for equality of coefficients in (1) and (2)
		(1)	(2)	(3)		
Self-Reported Recipients						
Household Assets Below Median	0.779	0.008 [0.016]	0.001 [0.019]	-0.025 [0.020]	5,480	0.745
Vulnerability Status	0.105	0.034** [0.015]	0.020 [0.020]	0.026 [0.019]	6,030	0.438
Omnibus Indicator of Economic Status	0.779	0.017 [0.015]	0.003 [0.019]	-0.019 [0.019]	5,356	0.521
Listed Recipients						
Household Assets Below Median	0.874	0.033 [0.021]	0.039** [0.016]	0.037* [0.019]	4,310	0.762
Vulnerability Status	0.112	0.0480*** [0.016]	-0.010 [0.017]	0.003 [0.018]	4,655	0.001
Omnibus Indicator of Economic Status	0.865	0.058*** [0.018]	0.060*** [0.016]	0.058*** [0.019]	4,212	0.926
Peer-Reported Recipients						
Household Assets Below Median	0.833	0.009 [0.024]	0.007 [0.020]	0.012 [0.022]	4,231	0.927
Vulnerability Status	0.102	0.020 [0.016]	0.000 [0.020]	-0.004 [0.020]	4,569	0.285
Omnibus Indicator of Economic Status	0.827	0.038** [0.019]	0.044** [0.019]	0.037* [0.021]	4,130	0.765
<i>Mean Effects Index</i>		0.078***	0.042	0.034		0.215

Notes: All estimates are relative to values in non-CDC villages without mandated women's participation. Robust standard errors adjusted for clustering at the village-cluster level in brackets. * significant at 10%; ** significant at 5%; *** significant at 1%.

Table 4: Effects on Subjective Measures of Targeting

Outcomes	Mean Value in Non-CDC without Mandated Women's Part.	CDC with Mandated CDC Management	CDC without Mandated CDC Management	Non-CDC w/ Mandated Women's Part.	Obs.	p-value for equality of coefficients in (1) and (2)
		(1)	(2)	(3)		
Share of Respondents <i>Ex-Ante</i> Identifying Self- Reported Recipient as Vulnerable	0.041	-0.002 [0.004]	0.005 [0.005]	0.003 [0.005]	10,268	0.117
Share of Respondents <i>Ex-Ante</i> Identifying Listed Recipient as Vulnerable	0.063	0.002 [0.006]	0.001 [0.006]	0.0110* [0.006]	13,085	0.885
Share of Respondents <i>Ex-Ante</i> Identifying Peer-Reported Recipient as Vulnerable	0.054	-0.003 [0.007]	0.007 [0.006]	0.005 [0.007]	13,728	0.145
Proportion of Recipients Reported <i>Ex-Post</i> to be Vulnerable	0.972	-0.013 [0.008]	-0.007 [0.013]	-0.0248** [0.012]	5,989	0.664
Distribution Perceived to Have Benefited Vulnerable Households	-0.024	0.1879* [0.100]	-0.083 [0.105]	0.001 [0.143]	6,364	0.043
<i>Mean Effects Index</i>		-0.003	-0.002	-0.013		0.974

Notes: All estimates are relative to values in non-CDC villages without mandated women's participation. Robust standard errors adjusted for clustering at the village-cluster level in brackets. * significant at 10%; ** significant at 5%; *** significant at 1%.

Table 5: Effects on Embezzlement

Outcomes	Mean Value in Non-CDC without Mandated Women's Part.	CDC with Mandated CDC Management	CDC without Mandated CDC Management	Non-CDC w/ Mandated Women's Part.	Obs.	p-value for equality of coefficients in (1) and (2)
		(1)	(2)	(3)		
At Least Some Wheat Retained by Village Leader(s)	0.087	-0.011 [0.020]	0.038* [0.020]	0.053** [0.024]	6,129	0.031
At Least Some Wheat Sold by Village Leader(s)	0.014	0.013 [0.008]	0.006 [0.012]	0.026** [0.011]	6,994	0.543
At Least Some Wheat Revoked by Village Leader(s) following Distribution	0.018	-0.016 [0.010]	-0.009 [0.012]	-0.022 [0.014]	5,639	0.651
Difference between Amount Allocated and Amount of Received	1.882	1.784 [1.278]	3.162** [1.453]	1.962 [1.551]	9,610	0.392
<i>Mean Effects Index</i>		0.008	-0.096*	-0.104*		0.074

Notes: All estimates are relative to values in non-CDC villages without mandated women's participation. Robust standard errors adjusted for clustering at the village-cluster level in brackets. * significant at 10%; ** significant at 5%; *** significant at 1%.

Table 6: Effects on Nepotism

	Mean Value in Non-CDC without Mandated Women's Part.	CDC with Mandated CDC Management	CDC without Mandated CDC Management	Non-CDC w/ Mandated Women's Participation	Obs.	p-value for equality of coefficients in (1) and (2)
		(1)	(2)	(3)		
Proportion of Recipients Connected to Village Leaders (Self-Identified Recipients)	-0.034	-0.031** [0.016]	0.022 [0.019]	0.004 [0.022]	7,179	0.011
Proportion of Recipients Connected to Village Leaders (Listed Recipients)	-0.055	0.012 [0.020]	0.023 [0.025]	0.016 [0.027]	5,200	0.645
Proportion of Recipients Connected to Village Leaders (Peer-Reported Recipients)	-0.049	0.002 [0.020]	0.017 [0.023]	0.019 [0.027]	5,191	0.584
Recipient Self-Identifies Household as Related to Village Leaders	0.244	0.045 [0.035]	-0.020 [0.033]	0.030 [0.046]	6,016	0.152
Wheat Distributed Primarily to HHs Connected to Influential Villagers	0.068	-0.013 [0.014]	0.024 [0.016]	0.004 [0.019]	7,076	0.043
Wheat Distributed to Leaders Not Involved in Decision-Making Process	0.930	-0.008 [0.013]	-0.008 [0.013]	-0.015 [0.015]	6,545	0.979
<i>Mean Effect Index</i>		-0.002	-0.027	-0.025		0.504

Notes: All estimates are relative to values in non-CDC villages without mandated women's participation. Robust standard errors adjusted for clustering at the village-cluster level in brackets. * significant at 10%; ** significant at 5%; *** significant at 1%.

Table 7: Effects on Participation

	Mean Value in Non-CDC without Mandated Women's Part.	CDC with Mandated CDC Management	CDC without Mandated CDC Management	Non-CDC w/ Mandated Women's Participation	Obs.	p-value for equality of coefficients in (1) and (2)
		(1)	(2)	(3)		
Selection of Recipients by More than One Person	0.829	0.030 [0.022]	-0.007 [0.030]	0.018 [0.029]	7,318	0.167
Villagers Selected or Were Consulted	0.231	0.009 [0.034]	-0.099** [0.045]	-0.088* [0.047]	5,891	0.023
Logarithm of Number of People Involved in Selection	1.798	0.134*** [0.050]	-0.094 [0.062]	0.005 [0.073]	6,950	0.001
Respondent Involved in Selection	0.112	0.009 [0.015]	-0.038*** [0.012]	-0.016 [0.014]	9,393	0.002
Women Involved in Selection	0.034	0.010 [0.010]	-0.003 [0.010]	0.009 [0.013]	8,378	0.325
No Conflicts Related to Distribution	0.978	-0.014** [0.006]	0.001 [0.009]	0.004 [0.008]	7,526	0.081
Identity of Recipients Publicly Announced	0.661	0.026 [0.029]	0.018 [0.033]	0.002 [0.042]	7,650	0.799
<i>Mean Effects Index</i>		0.046	-0.066*	-0.015		0.008

Notes: All estimates are relative to values in non-CDC villages without mandated women's participation. Robust standard errors adjusted for clustering at the village-cluster level in brackets. * significant at 10%; ** significant at 5%; *** significant at 1%.

Table 8: Effects of NSP on Perceptions of Quality of Local Governance

	Respondents	Effect of NSP at Endline	Effect of NSP at Midline	Obs.
Village Leaders Act in Interest of All	Male	-0.058*** [0.019]	-0.021 [0.017]	8,906
Village Leaders Responsive to Needs of Women	Female	0.030 [0.021]	0.054*** [0.019]	8,021
Headman Acts in Interest of All	Male	-0.023 [0.015]	0.008 [0.012]	8,344
Dispute Resolution Always Fair	Male	-0.034* [0.019]	-	2,697
Perceives that Theft Resolution is Always Fair	Male	-0.083** [0.040]	-	1,144
Neediest Villagers Would Benefit from Aid	Male	-0.017 [0.019]	-0.016 [0.015]	8,870
Satisfied with Village Leaders in Past Year	Female	0.015 [0.019]	0.025 [0.016]	7,891
Satisfied with Village Leaders in Past Year	Male	-0.067*** [0.014]	0.012 [0.015]	8,534
Disagreed with Leaders' Decision in Past Year	Female	0.011 [0.011]	-0.001 [0.011]	7,792
Disagreed with Leaders' Decision in Past Year	Male	0.045*** [0.010]	0.034*** [0.008]	8,986
<i>Mean Effects Index</i>		-0.073***	0.012	

Notes: Robust standard errors adjusted for clustering at the village-cluster level in brackets. * significant at 10%; ** significant at 5%; *** significant at 1%.

Table A1. Indicators.

	Indicator	Unit of observation	Sample
Objective Targeting			
I1: Whether Household scores below village median on the measure of Assets, which is the First Principal Component of:	<ul style="list-style-type: none"> • Stock of Household Assets (based on ownership of 22 different types of assets and the number of rooms occupied) • Area of Land Owned by Household 	Household	Recipients
I2: Vulnerability Status of Household – Maximum of:	<ul style="list-style-type: none"> • Household Headed by Widow • Household Headed by Male who is Disabled or Recently Suffered Serious Illness or Injury • No Male Resident Between the Age of 14 and 60 in Household 	Household	Recipients
I3: Whether Household scores below village median on the Omnibus Indicator of Economic Stats, which is the First Principal Component of:	<ul style="list-style-type: none"> • I1 • I2 • HH Head has No Formal Education • HH Head is Illiterate • HH Head is Unable to Complete Basic Calculation • HH Borrowed to Meet Food Needs 	Household	Recipients
Subjective Targeting			
I1: For Each Recipient, Proportion of Endline Survey Respondents that Ex-Ante Identified the Recipient as Vulnerable		Household	Recipients
I2: Proportion of Recipients Reported Ex-Post to be Vulnerable		Respondent	Random
I3: Distribution Perceived to Have Primarily Benefited Vulnerable Households – First Principal Component of:	<ul style="list-style-type: none"> • Respondent Reports that All Deserving Households Received Wheat • Respondent Reports that Some Recipients Households are Not Vulnerable • Respondent Reports that Wheat was Distributed Primarily to Vulnerable Households • Fairness of Distribution According to Respondent 	Respondent	Random
Embezzlement			
I1: Respondent Indicates that Some Wheat was Retained by Village Leaders for Personal Use		Respondent	Random
I2: Respondent Indicates that Some Wheat was Sold by Village Leaders		Respondent	Random
I3: Wheat Revoked by Village Leaders following Distribution		Respondent	Recipients
I4: Difference between Amount Allocated by Village Leaders' List to those Respondents and Total Amount of Wheat Received by Respondents		Household	Recipients and Random
Nepotism			
I1: Recipient Self-Identifies Household as Related to Village Leader or Member of Village Elders		Household	Recipients
I2: Proportion of Recipients Reported to be Close Friends or Relatives of Village Leaders		Respondent	Random
I3: Respondent Reports that Wheat was Distributed Primarily to Households Connected to Influential Villagers		Respondent	Random
I4: Respondent Reports that Wheat was Distributed to Village Leaders Not Involved in Decision-Making Process		Respondent	Random
Participation			
I1: Respondent Reports that Selection of Recipients was Made by More than One Person		Respondent	Random
I2: Respondent Reports that Ordinary Villagers Either Selected Recipients or Were Consulted		Respondent	Random
I3: Logarithm of Total Number of People Involved in Selection or Consultations		Respondent	Random
I4: Respondent was Involved in Selection or Consultations		Respondent	Random
I5: Women were Involved in Selection		Respondent	Random
I6: There were No Conflicts Related to Distribution		Respondent	Random
I7: Identity of Recipients was Publicly Announced by Village Leaders		Respondent	Random

Table A2. Changes With Respect to Pre-Analysis Plan.

Change	Reason
Consumption indicator as a measure of objective targeting is dropped	Consumption is directly affected by wheat distribution, so it reflects the outcome of wheat distribution, rather than relative standing of recipients prior to wheat distribution
Use indicator for whether the measure of assets is below the median in a village, rather than measure of assets directly	The new measure captures relative standing of recipient household, whereas the initially proposed measure could be affected by the effect of NSP on economic outcomes of all households in a village.
Use indicator for whether the omnibus indicator of economic status is below the median in a village, rather than the indicator directly	Same as above
Reverse the sign of the Difference between Total Amount of Wheat Received by Respondents and Amount Allocated by Village Leaders' List to those Respondents and calculated it at the household, rather than village level.	The sign is reversed for the ease of interpretation. The unit of observation was indicated as "village" in the PAP by mistake, as it produces similar results, but does not take into account within village variation.
Take Logarithm of the Total Number of People Involved in Selection or Consultations	The Number of People Involved in Selection or Consultations turns out to have a highly skewed distribution, so we take logarithms to minimize the effect of outlier.

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