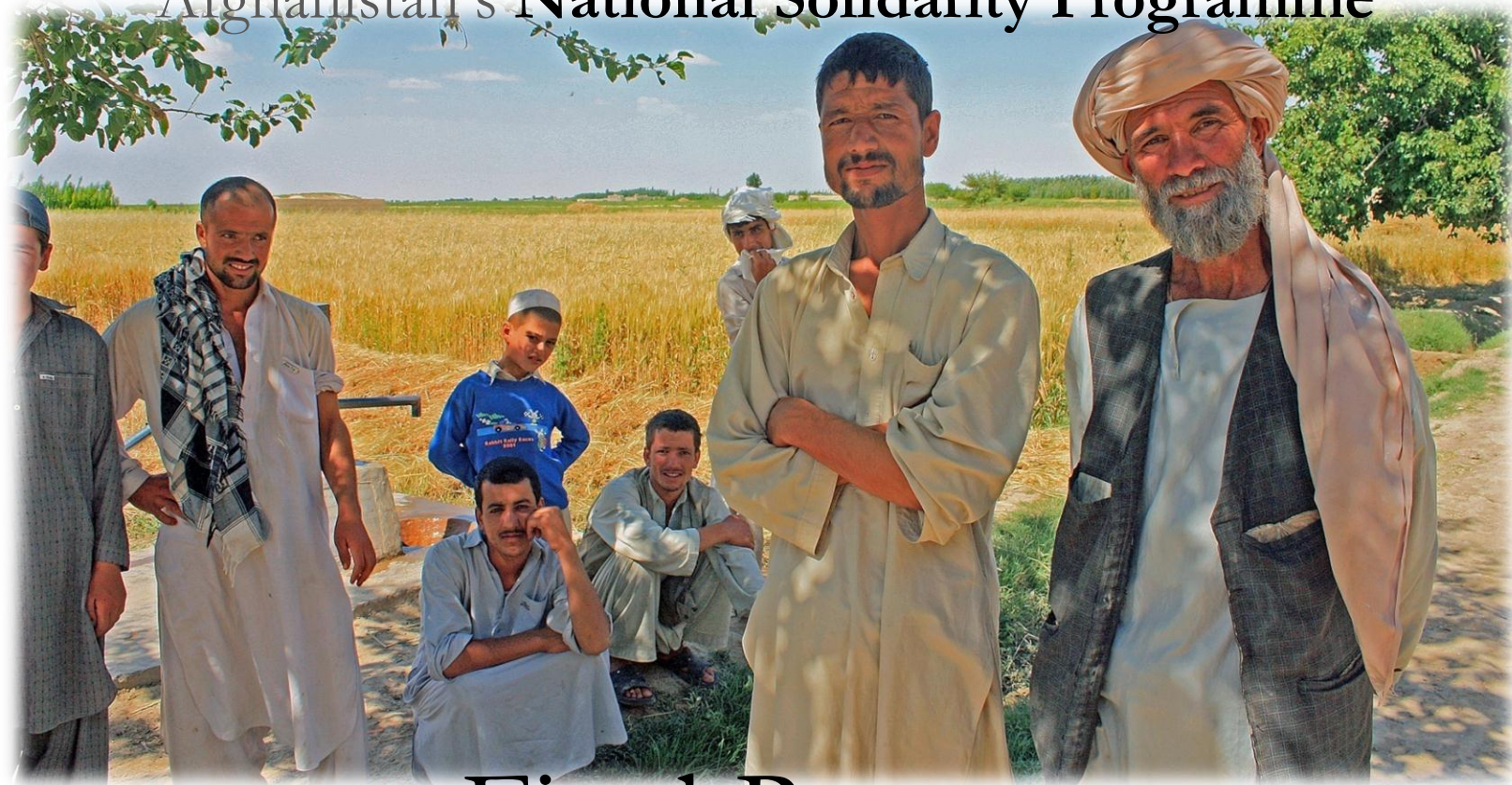


# Randomized Impact Evaluation of Afghanistan's **National Solidarity Programme**



## Final Report

July 1, 2013

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## Glossary

|                   |                                                                               |
|-------------------|-------------------------------------------------------------------------------|
| <b>Adr.</b>       | Adraskan district (Herat province)                                            |
| <b>Bal.</b>       | Balkh district (Balkh province)                                               |
| <b>CeS</b>        | Chisht-e Sharif district (Herat province)                                     |
| <b>CDC</b>        | Community Development Council                                                 |
| <b>Comm. Ctr.</b> | Community Center projects                                                     |
| <b>Dau.</b>       | Daulina district (Ghor province)                                              |
| <b>EGAP</b>       | <a href="#">Experiments in Governance and Politics Network</a>                |
| <b>EL</b>         | Endline Survey                                                                |
| <b>Fer.</b>       | Fersi district (Herat province)                                               |
| <b>FG</b>         | Female Focus Group Questionnaire                                              |
| <b>FH</b>         | Female Household Survey Questionnaire                                         |
| <b>FP</b>         | Facilitating Partner (NGOs contracted to implement NSP in assigned districts) |
| <b>Gul.</b>       | Gulran district (Herat province)                                              |
| <b>ha.</b>        | Hectare (1 ha. = 5 Jeribs)                                                    |
| <b>ISAF</b>       | International Security Assistance Force                                       |
| <b>IV</b>         | Instrumental Variables                                                        |
| <b>His.</b>       | Hisarak district (Nangarhar province)                                         |
| <b>KWF</b>        | Khost Wa Firing district (Baghlan province)                                   |
| <b>MG</b>         | Male Focus Group Questionnaire                                                |
| <b>MH</b>         | Male Household Survey Questionnaire                                           |
| <b>MRRD</b>       | Ministry of Rural Rehabilitation and Development                              |
| <b>mt.</b>        | Metric Tons                                                                   |
| <b>NGO</b>        | Non-Governmental Organization                                                 |
| <b>NSP</b>        | National Solidarity Programme                                                 |
| <b>NSP-IE</b>     | Randomized Impact Evaluation of Phase-II of National Solidarity Programme     |
| <b>OLS</b>        | Ordinary Least Squares                                                        |
| <b>PAP</b>        | Pre-Analysis Plan                                                             |
| <b>RCT</b>        | Randomized Controlled Trial                                                   |
| <b>She.</b>       | Sherzad district (Nangarhar province)                                         |
| <b>S.T.</b>       | Sang Takht district (Daykundi province)                                       |
| <b>STI</b>        | Sub-Treatment Intervention                                                    |
| <b>USD</b>        | U.S. Dollars (1 USD = 50 Afghani)                                             |
| <b>VAU</b>        | Vulnerability Analysis Unit                                                   |
| <b>VBDA</b>       | Village Benefit Distribution Analysis                                         |
| <b>WatSan</b>     | Water Supply & Sanitation Projects                                            |

**Program** refers to NSP and other large, multi-village government or donor-funded initiatives.

**Project** refers to schemes funded by NSP or other programs implemented at the village or pan-village level.

# Executive Summary

## Introduction

The National Solidarity Programme (NSP) is the largest development program in Afghanistan. Since its inauguration in 2003, NSP has established 32,000 Community Development Councils (CDCs) across 361 districts in all of Afghanistan's 34 provinces and has financed nearly 65,000 development projects.

NSP seeks to improve the access of rural villagers to basic services and to create a foundation of village governance based on democratic processes and female participation. The program is structured around two major village-level interventions: (1) the creation of a gender-balanced CDC through a secret-ballot, universal suffrage election; and (2) the disbursement of block grants, valued at \$200 per household up to a community maximum of \$60,000, to fund village-level projects selected, designed, and managed by the CDC in consultation with villagers.

The NSP impact evaluation (NSP-IE) is a multi-year randomized control trial designed to measure the effects of implementation of the second phase of NSP on a broad range of economic, political, and social indicators. While there have been a number of qualitative studies of NSP, the NSP-IE is the first large-sample quantitative assessment capable of providing rigorous estimates of program impact.

Figure 1: CDC Election in Balkh



## Methodology and Data Sources

The sample for study consists of 500 villages selected jointly with NSP and implementing partners in mid-2007. The 500 villages are spread equally across 10 districts in Balkh, Baghlan, Daykundi, Ghor, Herat, and Nangarhar provinces. Using a matched-pair cluster randomization procedure, the evaluation team randomly selected 250 of the 500 villages to receive NSP and comprise the treatment group for the study, with the remaining villages assigned to the control group. The design of NSP-IE facilitates a transparent and unbiased estimation of program impacts by ensuring that the background characteristics of the treatment group are, on average, identical to the control group. Accordingly, any differences that arise between the two groups of villages are generally attributable to NSP.

Baseline, midline, and endline surveys administered between August 2007 and October 2011 provide data for the study. Collectively, the surveys comprised over 25,000 household interviews with male and female villagers, as well as more than 2,600 focus groups with male village leaders and women. Data from the midline survey is used to estimate impacts of NSP two years after the start of NSP implementation and after all treatment villages had elected CDCs and selected projects, but prior to the completion of 82 percent of NSP-funded projects. Data from the endline survey is used to estimate impacts four years after implementation and after 99 percent of NSP-funded projects had been completed, but prior to the mobilization of control villages by NSP. The study also draws on the findings of a village benefit distribution analysis (VBDA), which assessed program impacts on the equity of food aid distributions by village leaders.<sup>1</sup>

Treatment villages in the sample commenced NSP implementation following the baseline survey in late 2007, with almost all treatment villages completing the program in 2011. Although the third phase of NSP proposes to provide follow-up block grants to villages, the 250 treatment villages have received only one phase of the program to-date.

## Summary of Findings

The study tests a series of hypotheses which examine the impacts at midline and endline of NSP on the access of villagers to utilities, services and infrastructure; on the economic welfare of villagers; on local governance; on political attitudes and state-building; and on social norms. The results of these hypotheses tests are summarized in [Table 1](#).

---

<sup>1</sup> The results of the VBDA are presented in [Beath, Christia & Enikolopov \(2013\)](#)

### *Access to Utilities, Services and Infrastructure*

NSP improves the access of villagers to basic utilities. NSP-funded drinking water projects increase access to clean drinking water, with the program resulting in a higher usage of protected sources at endline. NSP also reduces the time that households spend collecting water, but has no lasting impact on perceived water quality or on the incidence of water shortages. NSP-funded electricity projects substantially boost electricity usage, which rises by a quarter on account of the program.

NSP also increases access to education, health care, and counseling services for women. As NSP does not usually fund such services, these impacts arise indirectly from other changes induced by NSP. NSP increases girls' school attendance and their quality of learning, but there is no impact on boys' school attendance. NSP also increases child doctor and prenatal visits and the probability that an illness or injury is attended to by a medical professional, although does not affect other health outcomes. Finally, NSP raises the proportion of women who have a group or person with whom they can discuss their problems.

NSP-funded village-level irrigation and transportation projects are less successful. Irrigation projects have no noticeable impact on the ability of land-holding villagers generally to access sufficient irrigation. Although there is weak evidence that local transportation projects increase village accessibility at midline, this impact does not persist and there is no evidence that such projects impact village-to-district transportation times or the frequency by which male villagers visit the district center.

There is weak evidence that, once complete, NSP-funded projects fulfill the development needs of male villagers, as measured by the types of projects identified as being most needed by the village. NSP particularly reduces demands for drinking water projects, which were identified by a higher proportion of male villagers than any other projects at baseline.

### *Economic Welfare*

NSP impacts the economic perceptions and optimism of villagers, particularly women. Female villagers exhibit improved perceptions of the current economic situation and are more optimistic, both at midline and endline. The economic perceptions and optimism of male villagers improves at midline, but there is only weak evidence of an impact at endline on optimism and no evidence of a longer-term impact on perceptions.

Despite the changes in economic perceptions, few impacts are observed on objective measures of economic activity. At midline, there is weak evidence that NSP induces small increases in the diversity of household income sources and in caloric intake, although there is no conclusive evidence to indicate that these impacts persist beyond project completion. At endline, there is only weak evidence of impact on the amount borrowed by households. NSP has no conclusive impacts at midline or endline on income levels, income regularity, consumption levels, assets, or food insecurity.

There is also no evidence that NSP impacts general production and marketing outcomes. NSP does not affect agricultural yields, productivity, or harvest sales, but induces a fleeting increase at midline in agricultural sales revenue. NSP also does not affect whether households sell animals or animal products or the revenue derived from such. While NSP increases handicraft sales and sales revenue at midline, these impacts are not durable. There is, however, some evidence that NSP reduces out-migration from villages at midline and endline.

The impacts of NSP on economic welfare appear to be driven more by the infusion of block grant resources than by broader impacts of completed projects on economic activity. This underscores the absence of positive effects of infrastructure projects. However, the sustained positive impact on female economic perceptions demonstrates the improvements brought to women's lives by female participation in NSP activities and by NSP-funded projects.

### *Local Governance*

NSP impacts the structure of local governance by substantially increasing the proportion of local assemblies that contain at least one woman member. The creation of CDCs also causes customary leaders to affiliate with representative assemblies during project implementation, but this is not sustained beyond project completion. There is no evidence that NSP introduces new leaders into the core group of village decision-makers.

The creation of CDCs by NSP induces an increase at midline in the provision of local governance services, the activity level of customary authorities, and the role served by representative assemblies in providing local governance services. However, these impacts generally do not persist following NSP activities. NSP does, though, produce a durable

increase in the number of meetings held annually by representative assemblies. There is also strong evidence that NSP increases the provision of local governance services specific to women and that the effect persists to endline.

NSP increases villager participation in local governance at midline, as measured by meeting attendance and a desire to change leader decisions. NSP also increases demands for the involvement of representative assemblies in local governance. However, while the desire to change leader decisions persists, NSP has no durable impact on whether villagers attend assembly meetings or believe assemblies should be involved in local governance.

Endline data indicates that NSP has a negative impact on local governance quality. Specifically, after project completion, male villagers are less likely to be satisfied with the work of local leaders and are more likely to disagree with recent decisions and actions of village leaders. While NSP induces an increase at midline in the extent to which village leaders are perceived as responsive to women's needs, the effect does not persist. Complementary evidence from the VBDA indicates that the observed worsening of governance quality is most likely due to the weakening of local governance accountability structures caused by the creation of CDCs in parallel to existing customary institutions and the lack of a clear delineation of institutional responsibilities following project completion.

Figure 2: Village in Daulina



### *Political Attitudes and State-Building*

There is strong evidence that NSP increased participation in the 2010 parliamentary elections, with the proportion of male and female villagers who claimed to have cast a ballot being 4 and 10 percent higher, respectively, in treatment villages. NSP also raises appreciation of the use of democratic processes in local governance, as manifested by an increase in the proportion of male villagers who prefer that the village headman is subject to secret-ballot election. However, NSP has no effect on female views of democratic elections or participatory decision-making procedures, on whether male villagers believe the President or provincial governor should be elected, on whether male villagers believe it appropriate to publicly discuss governance, or on support for the participatory resolution of major village issues.

Evidence that NSP increases the legitimacy of the central government is relatively weak. NSP has no impact on whether villagers believe that the government should exercise jurisdiction over local crimes, set the school curriculum, issue ID cards, or collect income tax, or whether villagers prefer a centralized state or a weak federation or identify primarily as Afghan. At midline, NSP induces an increase in linkages with government officials and representatives of the Afghan National Security Forces, but these effects are not durable.

There is strong evidence that NSP improves perceptions of government at midline, but only weak evidence of an impact at endline. During project implementation, NSP induces a strongly significant increase in the reported benevolence of a wide-range of government entities, but this impact fades somewhat following project completion, with weak positive impacts observed only for the President and central government officials. This pattern is also true for NGO officials, although NSP has a durable positive impact on perceptions of ISAF soldiers.

NSP does not appear to impact the likelihood of villages suffering violent attacks, at least as reported by villagers at midline and endline. There is also no evidence that NSP affects the ability of insurgent groups to expropriate harvests. However, NSP improves perceptions of the local security situation among both male and female villagers at midline, although only the effects for male villagers persist beyond project completion.

The impacts of NSP on perceptions of government at midline indicate that the program is generally perceived as government-owned and is positively received by villagers. However, the positive impact on perceptions of government is mostly confined to the period of project implementation, with villagers generally reverting to original attitudes vis-à-vis government once project funds are expended. This would seem to imply that government legitimacy

is tied more to the regularized provision of public goods and interaction with those delivering services than by improved development outcomes *per se*.

### *Social Norms*

In line with observations that public resource decisions can sometimes aggravate intra-communal divisions, we find weak evidence that, during project implementation, NSP increases the incidence of disputes and feuds, while reducing resolution rates. Once projects are completed, this general effect disappears, however, and there is weak evidence that NSP reduces intra-village disputes. There is also some evidence at midline that NSP increases interpersonal trust among male villagers, although no evidence of an endline impact for male villagers and no evidence of impact at midline or endline for female villagers. Given the small magnitude of the observed changes, there is no overall evidence of a discernible impact of NSP on social cohesion.

During project implementation, NSP improves basic literacy and computational skills of male and female villagers, although these impacts do not last. There is also evidence that NSP reduces the proportion of female villagers who report being unhappy with their lives, a result which could be caused by increased availability of counseling services for women, increased female participation in local governance, and/or increased access to basic utilities and services. NSP, however, does not affect the happiness of male villagers.

NSP increases men's acceptance of female participation in political activity and local governance. Specifically, the program increases men's openness to female electoral participation, national candidacy by women, and women holding positions in the civil service and working with NGOs. NSP also increases acceptance of female membership of village councils and of female participation in the selection of the village headman. The impact on women's views on female participation in political activity and local governance is more marginal. NSP also has limited impacts on cultural constraints to the education of women.

NSP durably impacts the participation of women in local governance. An increase is observed in the participation of women in dispute mediation and aid allocation decisions. Although NSP does not impact female intra-village mobility, female socialization, or female participation in economic activity or household decision-making, it increases the frequency by which women travel beyond their village. At endline, women in NSP villages are more likely to have visited the nearest village in the past year and are more likely to have visited the district center in the past month.

## **Conclusions**

NSP-funded utilities projects deliver substantial increases in access to drinking water and electricity, but infrastructure projects are less effective. As a consequence, NSP has limited impacts on long-term economic outcomes such as consumption or asset ownership.

Project implementation and the accompanying infusion of block grant resources do, though, deliver a short-term economic boost. This stimulus also improves villagers' perceptions of central and sub-national government, as well as of allied actors such as NGOs and ISAF soldiers. However, the impact of NSP on perceptions of government weakens considerably following project completion, which suggests that government legitimacy is dependent on the regular provision of public goods and/or interaction with service providers.

The creation of CDCs by NSP has few durable impacts on the identity or affiliation of *de facto* village leaders, provision of local governance services to male villagers, or the role of representative bodies in local governance. Moreover, NSP worsens perceptions by male villagers of local governance quality at endline. This latter result is apparently caused by the diffusion of institutional accountability due to the parallel co-existence of CDCs with customary authorities and the lack of clarity concerning the role of CDCs following project completion.

The mandating of female participation by NSP – and the consequent female participation in project implementation – results in increased male acceptance of female participation in public life and broad-based improvements in women's lives, encompassing increases in participation in local governance, access to counseling, and mobility. These and other economic, institutional, and social impacts of NSP further drive increases in girls' school attendance and in women's access to medical services, as well as improved economic perceptions and optimism among women in NSP villages.

**Figure 3: Boys at CDC Election in Daulina**



Table 1: Midline and Endline Impacts Scorecard

| Families                                       | Groups                    | Endline |     | Midline |     | Hypotheses               | Endline |     | Midline |     |
|------------------------------------------------|---------------------------|---------|-----|---------|-----|--------------------------|---------|-----|---------|-----|
| Access to Utilities, Services & Infrastructure | Utilities                 | ✓       | *** | ✓       | **  | Drinking Water           | ✓       | **  | ✓       | **  |
|                                                |                           |         |     |         |     | Electricity              | ✓       | **  | .       |     |
|                                                |                           |         |     |         |     | Female Counseling        | ✓       | *** | ✓       | *** |
|                                                | Services                  | ✓       | *** | ✓       | *   | Education                | ✓       | **  | .       |     |
|                                                |                           |         |     |         |     | Health                   | ✓       | **  | .       |     |
|                                                |                           |         |     |         |     | Irrigation               | .       |     | .       |     |
| Economic Activity                              | Infrastructure            | .       |     | .       |     | Transport                | .       |     | .       |     |
|                                                |                           |         |     |         |     | Project Pref.            | ✓       | *   | .       |     |
|                                                |                           |         |     |         |     | Project Pref.            | ✓       | *   | .       |     |
|                                                | Perceptions               | ✓       | *** | ✓       | *** | Perceptions              | ✓       | *** | ✓       | *** |
|                                                |                           |         |     |         |     | Income                   | .       |     | ✓       | *   |
|                                                |                           |         |     |         |     | Consumption              | .       |     | .       |     |
| Local Governance                               | Stocks & Flows            | .       |     | ✓       | **  | Assets                   | .       |     | .       |     |
|                                                |                           |         |     |         |     | Borrowing                | .       |     | .       |     |
|                                                |                           |         |     |         |     | Food Security            | .       |     | .       |     |
|                                                | Production & Marketing    | .       |     | .       |     | Agricultural             | .       |     | .       |     |
|                                                |                           |         |     |         |     | Non-Agricultural         | .       |     | .       |     |
|                                                |                           |         |     |         |     | Household                | ✓       | *   | ✓       | **  |
| Political Attitudes & State-Building           | Migration                 | .       |     | ✓       | *** | Individual               | .       |     | .       |     |
|                                                |                           |         |     |         |     | Leader Continuity        | .       |     | .       |     |
|                                                |                           |         |     |         |     | Assembly Affiliation     | .       |     | ✓       | *** |
|                                                | Structure                 | ✓       | *** | ✓       | *** | Female Representation    | ✓       | *** | ✓       | *** |
|                                                |                           |         |     |         |     | Services Provision       | .       |     | ✓       | *   |
|                                                |                           |         |     |         |     | Leader Activity          | ✓       | **  | ✓       | *** |
| Social Norms                                   | Function                  | ✓       | **  | ✓       | *** | Role of Assembly         | .       |     | ✓       | *** |
|                                                |                           |         |     |         |     | Participation            | ✓       | *** | ✓       | *** |
|                                                |                           |         |     |         |     | Perception               | ✗       | **  | .       |     |
|                                                | Quality & Participation   | .       |     | ✓       | *** | Taxation by Leaders      | .       |     | .       |     |
|                                                |                           |         |     |         |     | Assembly Preference      | .       |     | ✓       | **  |
|                                                |                           |         |     |         |     | Democratic Norms         | ✓       | *   | ✓       | *** |
| Social Norms                                   | Democratic Values         | ✓       | *** | ✓       | *** | Voting / Knowledge       | ✓       | **  | .       |     |
|                                                |                           |         |     |         |     | Acceptance of State      | ✓       | *   | .       |     |
|                                                |                           |         |     |         |     | Linkages with State      | .       |     | ✓       | *** |
|                                                | State Legitimacy          | ✓       | **  | ✓       | *** | Central Government       | ✓       | *   | ✓       | *** |
|                                                |                           |         |     |         |     | Sub-National Government  | .       |     | ✓       | *** |
|                                                |                           |         |     |         |     | Allied Actors            | .       |     | ✓       | *** |
| Social Norms                                   | Perceptions of Government | ✓       | *   | ✓       | *** | Violent Incidents        | .       |     | .       |     |
|                                                |                           |         |     |         |     | Taxation by Insurgents   | .       |     | .       |     |
|                                                |                           |         |     |         |     | Security Perceptions     | .       |     | ✓       | **  |
|                                                | Conflict                  | .       |     | ✓       | *   | Disputes & Mediation     | .       |     | ✗       | **  |
|                                                |                           |         |     |         |     | Trust                    | .       |     | ✓       | **  |
|                                                |                           |         |     |         |     | Literacy and Math        | .       |     | ✓       | *** |
| Social Norms                                   | Basic Skills              | ✓       | *   | .       |     | Happiness                | ✓       | *   | .       |     |
|                                                |                           |         |     |         |     | Political Activity       | ✓       | *** | .       |     |
|                                                |                           |         |     |         |     | Work & Society           | ✓       | *   | .       |     |
|                                                | Gender Attitudes          | ✓       | *** | ✓       | *** | Girls' Education         | .       |     | .       |     |
|                                                |                           |         |     |         |     | Local Governance         | ✓       | *** | ✓       | **  |
|                                                |                           |         |     |         |     | Local Governance         | ✓       | *** | ✓       | *** |
| Social Norms                                   | Gender Outcomes           | ✓       | **  | ✓       | *** | Socialization            | .       |     | .       |     |
|                                                |                           |         |     |         |     | Mobility                 | .       |     | ✓       | *** |
|                                                |                           |         |     |         |     | Ec. Activity & Decisions | .       |     | .       |     |

Note: ✓ denotes beneficial impacts; ✗ adverse impacts; . no evidence of impact; and – no data. \*\*\* denotes statistical significance at 1 percent level; \*\* statistical significance at 5 percent level; and \* statistical significance at 10 percent level. Grey shading (\*) denotes a loss of a level of statistical significance if baseline values are controlled for. Blue and dark red shading (\*, ✗) denotes a gain of statistical significance (for beneficial and adverse impacts, respectively) if baseline values are controlled for.



## Part I - Background

## I. Introduction

The impact evaluation of Afghanistan's National Solidarity Programme (NSP-IE) is a multi-year randomized controlled trial (RCT) designed to quantify impacts of the second phase of the National Solidarity Programme (NSP) on access to services, infrastructure, and utilities; economic welfare; local governance; political attitudes and state-building; and social norms.

The evaluation compares changes in outcomes throughout the life-cycle of program implementation between 250 treatment villages mobilized by NSP and 250 control villages that had not yet participated in NSP. This report presents endline estimates of program impacts using data collected following project completion, as well as midline estimates of program impacts using data collected midway through program implementation. This estimation of impacts at multiple stages of implementation is unique for an RCT of a community-driven development program.

The analysis is structured around a series of hypotheses tests previously outlined and publicly disseminated in a [pre-analysis plan \(PAP\)](#) completed by the authors prior to the receipt of endline survey data.<sup>2</sup> The adherence of the analysis to the PAP assures the integrity of the estimates and, in particular, their imperviousness to publication bias or other pressures to manipulate findings.

The paper is divided into four parts: Part I provides background information on NSP and reviews findings of research on other community-driven development programs and on NSP; Part II details the research design and data collection processes; Part III presents estimates of the midline and endline impacts of NSP; and Part IV concludes.

Part I is divided into six sections: II describes NSP; III summarizes the findings of other quantitative impact evaluations of community-driven development programs; IV reviews related literature on NSP; V provides background information on the NSP-IE; and VI summarizes two sub-treatment interventions incorporated into the NSP-IE.

## II. National Solidarity Programme

NSP was conceived soon after the institution of the Transitional Islamic State of Afghanistan as a means to extend the administrative reach of the state, build representative institutions for local governance, and deliver critical services to the rural population. Since its inauguration in 2003, NSP has been implemented in 32,000 villages across 361 of Afghanistan's 398 districts. The 2012-13 government budget allocates NSP \$208 million in funding, making NSP the largest development program in the country.<sup>3</sup>

NSP is executed by the Ministry of Rural Rehabilitation and Development, funded by the World Bank and a consortium of bilateral donors, and implemented by 8 national and 21 international NGOs, known as facilitating partners (FPs), which are contracted to implement NSP in individual districts. Program implementation is structured around two major interventions at the village level:<sup>4</sup>

- In order to build a foundation for village governance centered on democratic processes and women's participation, a gender-balanced Community Development Council (CDC) is created through a secret-ballot, universal suffrage election.<sup>5</sup>

Figure 4: CDC Meeting in Daulina District, Ghor Province



<sup>2</sup> The PAP also provides details of the indicators incorporated into hypotheses tests (including the questionnaire and question number from which the indicator is sourced, plus details of how raw data will be coded or otherwise manipulated to form the respective indicator) and the specifications applied to aggregate indicators and test hypotheses. The PAP was registered with the [Experiments in Politics and Governance Network](#) and is available [here](#).

<sup>3</sup> [World Bank \(2012\)](#). 73 percent of NSP funding is allocated to block grants, 18 percent to facilitation costs, and 9 percent to administration. During 2011-12, NSP reported \$217 million in expenditures ([World Bank \[2012\]](#)).

<sup>4</sup> Villages must have more than 25 households to form a unitary CDC, although smaller villages may form joint CDCs with larger villages.

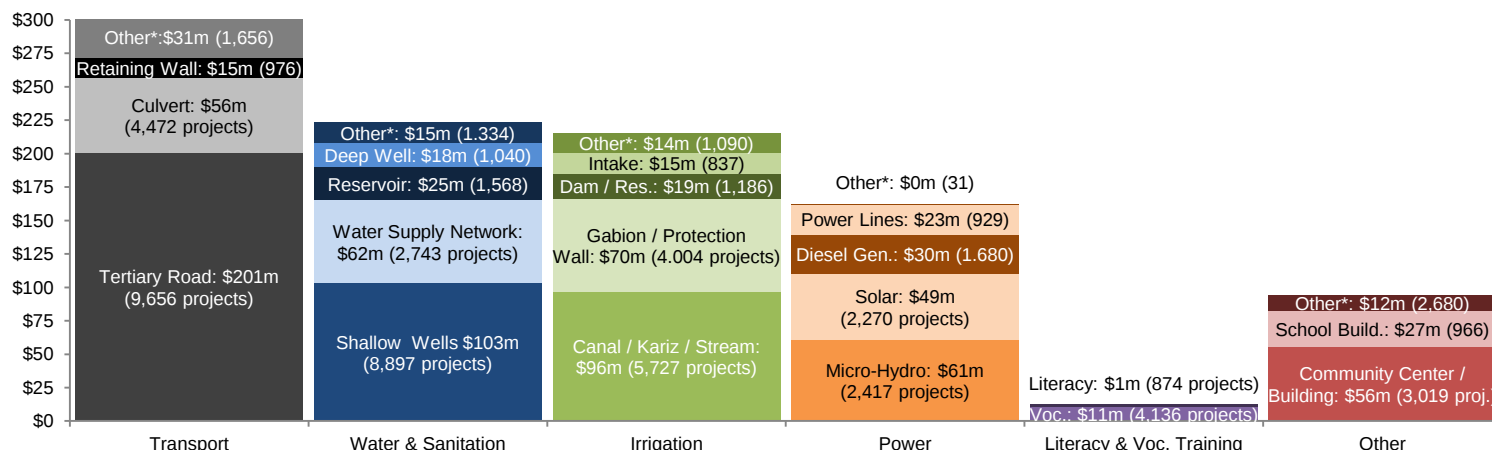
- To improve access of rural villagers to basic utilities, services, and infrastructure, ‘block grants’ – valued at \$200 per household, up to a village maximum of \$60,000, and averaging \$33,000 – are disbursed to support village-level projects designed and selected by CDCs in consultation with villagers.<sup>6</sup>

Projects financed by NSP generally fall into one of six categories: transport (30 percent of total funding and 26 percent of total projects); water and sanitation (22 percent of funding; 24 percent of projects); irrigation (21 percent of funding; 20 percent of projects); power (16 percent of funding; 11 percent of projects); literacy and vocational training (1 percent of funding; 8 percent of projects); and other (9 percent of funding; 10 percent of projects). Between mid-2003 and early 2013, over 64,000 projects were initiated under NSP, with a total combined budget of \$1.01 billion.<sup>7</sup>

**Figure 5: Electricity Project in Bamiyan Province**



**Figure 6: Projects Financed by NSP, by Aggregate Funding Allocated**



*Note:* Data obtained from NSP sub-project monitoring database and covers 64,188 phase I, II, and III projects initiated in 29,705 communities between July 12, 2003 and January 9, 2013. “Other” transport projects include pathways (\$10m, 643 projects); bridges (\$7m, 297); and secondary roads (\$6m, 303). “Other” water and sanitation projects include latrines (\$5m, 566); public baths (\$5m, 306); and hand pumps (\$4m, 328). “Other” irrigation projects include water divider construction (\$5m, 421), pipe schemes (\$3m, 205), and aqueducts (\$3m, 265). “Other” other projects include livelihoods projects (\$9m, 2,549) and health facilities (\$2m, 122).

In each village, implementation of NSP takes approximately three years. The process of facilitating CDC elections usually takes about six months, after which an average of twelve months elapse before project implementation starts. During this 6 month period, CDCs and villagers design projects, submit proposals, receive funds, and, if necessary, procure contractors. Once started, project construction lasts an average of nine months.

Due to the large number of villages in Afghanistan and programmatic resource constraints, villages have generally only participated in NSP once. Once implementation of NSP in a village concludes, villages have no assurance of when – or if – they will receive further NSP activities, either in the form of facilitated CDC elections or block grants. In the current third phase of the program, NSP is providing repeater block grants to around 12,000 villages mobilized in the program’s first phase between 2003 and 2007 and which have not participated in NSP for 8 – 10 years.<sup>8</sup>

<sup>5</sup> Villages are divided into ‘clusters’ of between five and twenty families, with each cluster electing a male and female representative to the CDC. The CDC is headed by an executive council composed of a president, deputy president, secretary, and treasurer.

<sup>6</sup> NSP features a ‘negative list’ which bans certain types of projects from receiving funding (including mosque construction, land purchases, payment of salaries to CDC members, purchase of weapons, and cultivation of illegal crops). Eligible projects are generally approved by NSP provided they are endorsed through a village-wide consultation process; provide for equitable access; are technically and financially sound; include an operation and maintenance plan; and are funded by the community (including labor and materiel contributions) up to a level exceeding 10 percent of the total cost.

<sup>7</sup> Data is from NSP sub-project monitoring database, using a constant exchange rate of 50 Afghanis per dollar.

<sup>8</sup> NSP Phase-III also intends to mobilize the remaining 16,000 villages which have yet to receive the program.

### III. Research on Community-Driven Development

NSP is an example of community-driven development (CDD) program. CDD seeks to involve village communities throughout the project cycle and is popular among donors, governments, and NGOs as a means of delivering projects in rural areas.<sup>9</sup> Proponents of CDD contend that the paradigm aligns projects with the needs of rural communities,<sup>10</sup> increases stakeholder engagement, and improves the quality of local governance.<sup>11</sup>

The first wave of research on CDD programs was mainly observational, but in concert with the general trend across development programs, recent years have seen an increased use of rigorous methodologies to evaluate program impact. The design and results of a number of these studies, both experimental (III.i) and quasi-experimental (III.ii), are noted below, with a final section (III.iii) summarizing the results.

#### III.i. *Experimental Studies*

To date, three large-scale, RCT-based impact evaluations of CDD programs have been completed, covering CDR in Liberia, GoBifo in Liberia, and *Tuungane* in the eastern Congo.

[Fearon, Humphreys & Weinstein \(2009\)](#) randomized the NGO-funded and -implemented Community-Driven Reconstruction (CDR) program across 83 communities in two districts in Liberia. The study measures outcomes six months after the completion of the program using both household survey data and the results of a public goods game. On economic outcomes, the study estimates that CDR improves access to local public goods and education, but finds only weak evidence that it increases employment and asset holdings. On social and institutional outcomes, the study finds that CDR has no impact on notions of decision-making or villagers' sense of personal efficacy, but increases use of democratic processes for selection of community representatives and of projects, increases trust in community leaders, reduces social tension, and increases acceptance of marginalized groups.

[Casey, Glennerster & Miguel \(2011a\)](#) randomized the World Bank-funded, government-implemented GoBifo program across 236 villages in two districts in Sierra Leone. The study uses household survey data, focus groups, and 'structured community activities' to assess impact four years after the start of implementation. On economic outcomes, the study finds that GoBifo has a positive effect on economic well-being by increasing market activity, asset ownership, and improving the quality and quantity of public goods provision. On social and institutional outcomes, the study finds that GoBifo does not impact trust or collective action beyond the sphere of the project or induce greater participation or empowerment of women or youths in local affairs and decisions outside the project.

[Humphreys, Sanchez de la Sierra, van der Windt \(2012\)](#) randomized the DfID-funded, NGO-implemented *Tuungane* program in four regions in the eastern Democratic Republic of the Congo. The study uses survey data to evaluate economic impacts and deploys an unconditional cash transfer scheme across 560 villages to assess impacts on local governance. On economic outcomes, the study finds no evidence that *Tuungane* positively impacts income, productivity, agricultural productivity, assets, housing quality, school attendance, sickness, or village services. On social and institutional outcomes, the study finds no evidence of impacts on transparency or capture, although there is evidence of an impact on bottom-up accountability and a small impact on gender-inclusion. Although *Tuungane* increases trust in ex-combatants, few other impacts are discerned on within- and between-village cohesion.

#### III.ii. *Quasi-Experimental Studies*

In addition to the RCTs, various quasi-experimental studies have succeeded in plausibly projecting the counter-factual. These include impact evaluations of KDP in Indonesia, BRA-KDP in Aceh, and KALAH-CIDSS in the Philippines.

[Voss \(2008\)](#) evaluates the World Bank-funded, government-implemented Kecamatan Development Program (KDP) in Indonesia. The study uses propensity score matching and data from the 2003 census to select a control group of communities, with a total sample of 300 communities across 17 provinces. Using panel data from household surveys in 2002 and 2007, the study constructs difference-in-difference estimates of the impact of KDP. The results indicate that KDP substantively increases consumption and reduces poverty in the poorest communities, but has no impact on economic outcomes in less poor communities or among disadvantaged groups. KDP is found to reduce

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<sup>9</sup> See [Dongier et al. \(2002\)](#) and [Mansuri & Rao \(2004\)](#)

<sup>10</sup> See [Kingsley \(1996\)](#) and [Manor \(1999\)](#)

<sup>11</sup> See [Fung & Wright \(2003\)](#) and [Nordholt \(2004\)](#)

unemployment across the sample, while also increasing access to health services. Enrolment rates are, however, not impacted by the program.

Barron, Humphreys, Paler & Weinstein (2009) evaluate the World Bank-funded, government-implemented Community-Based Reintegration Assistance for Conflict Victims (BRA-KDP) program in Aceh, Indonesia. The study uses propensity-score matching and instrumental variables (IV) to form a control group and household and village head surveys for data. On economic outcomes, the study finds that BRA-KDP increases asset ownership, agricultural activity, and economic perceptions, but has no impact on employment, access to health and education, or on the level of community infrastructure.<sup>12</sup> On social and institutional outcomes, the study finds no evidence that BRA-KDP impacted associational activities, trust in institutions, acceptance of returning groups, social tensions, conflict, or community efficacy. According to the study, BRA-KDP lowers levels of acceptance of ex-combatants by conflict victims, although the program is also associated with increased participation in women's groups.

Edillon, Piza & Santos (2011) evaluate the World Bank-funded, government-implemented *Kapit-Bisig Laban Sa Kabirapan*-Comprehensive and Integrated Delivery of Social Services (KALAH-CIDSS) program in the Philippines. The evaluation was designed in 2003 and employed cluster analysis to form a control group, with surveys administered in 2003, 2006, and 2010 across a panel of households in 135 communities. On economic outcomes, the study finds that KALAH-CIDSS increases per capita consumption, employment, diversification, access to markets for agricultural produce, visits to local health facilities, and access to clean drinking water. On social and institutional outcomes, KALAH-CIDSS results in increased participation in local governance activities, knowledge of public affairs, organizational membership and interpersonal trust, but negatively impacted collective action.

### III.iii. Summary of Findings

The divergence in findings across the above studies confounds conclusions about the general effects of CDD programs. While the Aceh, Indonesia, Philippines and Sierra Leone studies observe positive impacts on household-level economic outcomes, the Liberia and eastern Congo studies find weak or no evidence of such impacts. Evidence of impact on access to services and infrastructure is also mixed, with the null results of the Aceh and eastern Congo studies contrasting with positive findings in other contexts. On social and institutional outcomes, there is also no consensus. The Liberia and Philippines studies observe strong evidence of impacts on at least some important measures of social cohesion and/or associational activities, but are contradicted by evidence from Aceh, eastern Congo, and Sierra Leone. These differences in findings could plausibly arise from a number of factors, including differences between programs in the duration, intensity, quality and/or type of intervention; differences in country context; or differences in methodologies, sample sizes, and data collection procedures.

## IV. Research on NSP

This study is the first to assess the impacts of NSP in the context of a plausible projection of the counter-factual across a large sample. However, various qualitative studies have made contributions to understanding NSP and it how it affects villagers.<sup>13</sup> Such works have documented how NSP has affected local governance structures (IV.i), political and social attitudes (IV.ii), and economic well-being (IV.iii) and are summarized below.

### IV.i. Local Governance

Previous studies of NSP have noted high levels of acceptance by villagers of secret-ballot elections, which are perceived as transparent, free, and fair (Boesen [2004]; Brick [2008a]). Higashi (2008) also notes that villages are satisfied with the participatory process of project selection as it provides a rare sense of ownership over projects. A number of studies, however, report attempts by local power-holders – such as commanders, mullahs or landowners – to disrupt CDC elections in order to control block grants (Boesen [2004]; Noelle-Karimi [2006]).

There are contrasting accounts of whether existing power-holders dominate CDCs. Boesen (2004) estimates that local elites make up between 50 and 70 percent of CDCs; Barakat (2006) notes that pre-existing leaders largely dominate

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<sup>12</sup> This is explained by the decision of a majority of BRA-KDP villagers to use block grants for cash distribution, which is unusual for CDD programs.

<sup>13</sup> These include Affolter et al. (2006); Azarbaijani-Moghaddam (2010); Barakat (2006); Boesen (2004); Brick (2008a); Brick (2008b); Brick (2008c); Echavez (2010); Higashi (2008); Howell & Lind (2008); Kakar (2005); Nixon (2008); Noelle-Karimi (2006); Pain & Kantor (2010); and Torabi (2007)

the CDCs; and [Pain & Kantor \(2010\)](#) report cases of capture of project funds. Brick (2008a) further observes that NSP has encouraged the return of predatory figures, such as commanders. However, some of the same studies also report that CDC members are younger and better educated than customary leaders (Boesen [2004]) and that NSP reduces the power of warlords and corrupt elites (Barakat [2006]).

There are also conflicting views on the role of CDCs in local governance. Some studies suggest that CDCs are leading a gradual transfer of authority from customary authorities to a younger and better educated cadre of leaders (Barakat [2006]) and are seen as a legitimate governance institution beyond NSP (Boesen [2004]). However, other studies suggest that CDCs are confined to project implementation and rarely become involved in broader local governance functions, such as dispute resolution (Brick [2008a]). [Nixon \(2008\)](#) and [Torabi \(2007\)](#) find that the acceptance, strength and influence of CDCs are conditioned by the nature of villages' prior experience with the government and its pre-existing norms and institutional structure. The legitimacy of CDCs is found to decline with delays or misuses in the allocation of NSP resources.

#### *IV.ii. Political and Social Attitudes*

Qualitative studies generally note that NSP improves perceptions of government and credit the program with increasing goodwill between villages and provincial and district officials (Barakat [2006]; Brick [2008a]). NSP is also noted to increase acceptance of democratic procedures. For instance, Boesen (2004) reports an account from an agency registering voters for the 2004 elections, which found NSP villages more accustomed to the concept of elections and universal voting rights than villages without the program. Brick (2008a) also notes that CDC elections have sometimes encouraged the use of elections to select village headmen, a position that is ordinarily inherited.

NSP mandates gender equality in CDC elections, project selection, and project management. Such policies have occasionally encountered resistance, resulting in male relatives controlling voting decisions, precluding participation in CDCs, or de-prioritizing projects favored by or benefiting women.<sup>14</sup> Nixon (2008) suggests, though, that barriers to women's participation in NSP activities are more apparent in the election process than they are in the project selection process, in which women are generally more involved.

In spite of this initial resistance, NSP's mandating of female participation is observed to induce broad-based improvements in the roles and respect accorded women. Barakat (2006) and [Echavez \(2010\)](#) report that NSP sets in motion a slow, but substantive change in views on female participation in local governance and even household decision-making. Studies also note that NSP increases female intra-village mobility, socialization, and provides women with a forum where they can discuss not just NSP, but also health, education and family issues ([Azarbaijani-Moghaddam \(2010\)](#); Barakat [2006], Echavez [2010]).<sup>15</sup>

Some observational studies credit NSP with strengthening social capital in recipient villages through community involvement in decision-making and, in particular, in helping to resolve disagreements among different clans (Barakat [2006]). However, other studies contend that the creation of CDCs and infusion of resources may exacerbate conflict (Brick [2008a]) and note cases of disputes arising over project location or payments for project maintenance (Barakat [2006]).

#### *IV.iii. Economic Well-Being*

Accounts of the economic impacts of NSP have been less numerous than on the aspects noted above, but are suggestive of significant and meaningful changes. Barakat (2006) and Brick (2008a) report that NSP has increased access to public goods and services and has served as a spring-board for broad-based economic improvements. Barakat (2006) also notes that villagers in communities with NSP are more optimistic. There are cases, however, of

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<sup>14</sup> Boesen (2004) reports women are usually "told by the husband or male relative whom they should vote for" (p. 48-9). Brick (2008c) also recounts, "[i]n one community, women chose to use NSP funds to start an animal husbandry project . . . [T]he men bought several sheep for the women in the community to satisfy the needs of [NSP, but later] . . . sold the sheep at the bazaar and purchased more solar panels for the community." (p. 38 – 9)

<sup>15</sup> Barakat (2006) reports that in one village, "the women said they had not even known each other . . . until they were able to meet in the women's [council]" (p. 84).

projects making villagers worse off when money or materials were invested by community members, but where the project subsequently failed due to poor design or a lack of resources to provide necessary maintenance.<sup>16</sup>

## V. Origins of NSP-IE

The first phase of NSP concluded in early 2007, at which point 17,200 villages in 279 of Afghanistan's 398 districts had participated in the program. The second phase of NSP was designed with an interim goal of mobilizing 4,300 new villages over the course of two years – 2,000 of which were located in districts containing villages that had received NSP, with the remainder located in 74 “new” districts containing no villages that had previously received NSP.

In the 74 new districts, financial constraints limited the number of villages that could participate in NSP to 40. As the number of villages in these districts averages 80, this constraint necessitated a rationing mechanism. In the absence of village-level data which could be used to objectively identify the most vulnerable villages, the fairest means by which to select villages to receive NSP was randomization – in other words, holding a virtual lottery to allocate the program across eligible villages.

The feasibility of randomization in this case provided an opportunity to rigorously estimate the impacts of NSP, something which was desired by both MRRD and key donors to the program. In late 2006 and early 2007, the evaluation team worked with MRRD, NSP, FPs, and key donor agencies to develop an evaluation design that was practical and which provided definitive estimates of program impacts.

Following consultations with the aforementioned stakeholders, the evaluation team developed the partitioned matched-pair cluster randomization design detailed in Sections II and III of Part II. This design provided FPs and other local stakeholders with the ability to both designate ‘priority’ villages in sample districts that could be guaranteed NSP, as well as to select the sample villages which would be subject to the randomization. These adjustments limited adverse humanitarian and/or political ramifications of the randomization and reduced the costs to FPs of complying with randomized assignments, thereby contributing to the NSP-IE's overall success.

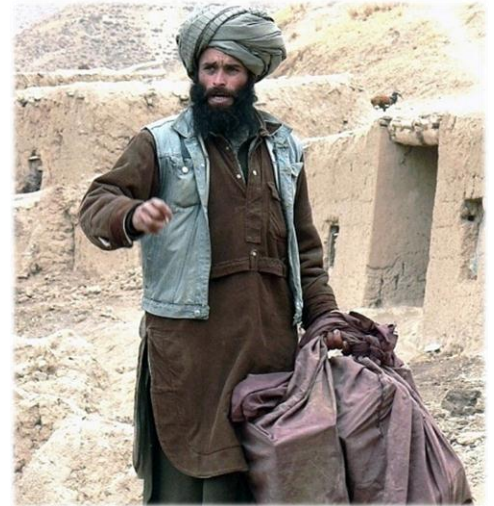
## VI. Sub-Treatment Interventions

NSP-IE's design incorporated two sub-treatment interventions (STIs), which induced randomized variations in CDC election and project selection procedures. The STIs were developed in coordination with FPs to provide NSP with evidence-based recommendations to improve programmatic efficacy. While the results of the STIs are presented elsewhere, summaries of the variations are given below to outline how NSP implementation across the sample villages was affected.

### VI.i. Variation in CDC Election Method<sup>17</sup>

NSP-IE induced randomized variation in the method by which the CDC was elected. Half of treatment villages were assigned a “neighborhood” election, while the other half were assigned an “at-large election”:<sup>18</sup>

**Figure 7: FP Staff-Member with Ballot Boxes in Daulina District**



**Figure 8: Elder in Daulina District**



<sup>16</sup> Brick (2008a) describes a village where a solar energy project was launched with the provision that individual families would be responsible for purchasing batteries for solar panels. However, batteries proved to be too expensive for most of the poorer families in the village to replace after they expired and, as a result, “only 8 out of the 158 solar panels purchased by the CDC” were in use (p. 34).

<sup>17</sup> The results of the variation are described in Beath et al. (2009a), Beath et al. (2009b), and Beath et al. (2013)

<sup>18</sup> Under both procedures, at least 60 percent of eligible voters aged 18 or older had to vote for the election to be valid.

- *Neighborhood Election*: This is the status quo method used by NSP to elect CDCs and approximates a first-past-the-post, single-member district electoral system. Vote choice is restricted to candidates<sup>19</sup> who live in the same village cluster as the voter and each villager has one vote.<sup>20</sup> Each cluster elects a male and female CDC representative.
- *At-Large Election*: This is an alternative electoral procedure developed in conjunction with FPs and approximates a multi-member district, non-transferable vote electoral system.<sup>21</sup> Villagers are able to vote for any candidate, regardless of where they live in the village and given three votes, which must be used for different candidates.<sup>22</sup>

Both methods employ the same procedures to determine the number of CDC representatives, which should contain an equal number of men and women.

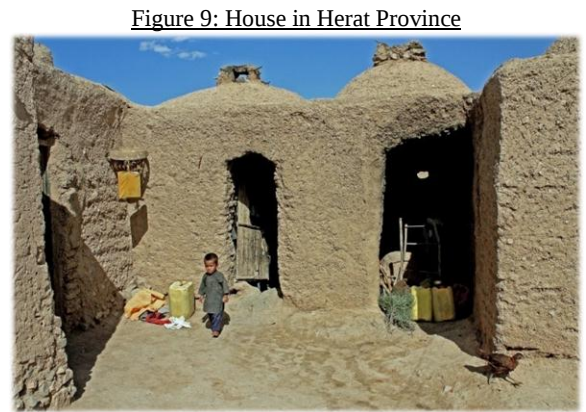


Figure 9: House in Herat Province

#### VI.ii. Variation in Project Selection Procedure<sup>23</sup>

The selection of NSP projects is required to be conducted in a participatory manner, although procedures vary from formal referenda to more limited forms of consultation. Within the treatment villages, NSP-IE induced randomized variation in the method by which projects were selected, with half of the treatment villages assigned to select projects by referendum and the other half assigned to select projects by community meeting. The procedures are as follows:

- *Community Meeting*: The CDC convenes and moderates a meeting of villagers to discuss project selection, with the goal of reaching a consensus as to which project(s) should be implemented with block grant funding. The final decision on which projects are selected is, however, left to the members of the CDC.
- *Referendum*: A formal, secret-ballot referendum is facilitated by the FP. Villagers are provided with a ballot listing project options proposed by the CDC and asked to indicate which one they prefer to be implemented.<sup>24</sup> The results of the referendum determine which projects are submitted to NSP for funding.

Both procedures use the same agenda-setting procedure, whereby the list of possible projects is composed by the CDC for either inclusion on the referendum ballot or discussion at the meeting.



Figure 10: Hari Rud River in Ghor Province

<sup>19</sup> In order to prevent CDC elections from fomenting “division or elitist usurpation of election results”, NSP requires that the election period must be free of electioneering or campaigning (Affolter et al. [2006]). “Candidate” is used here only due to a lack of alternatives.

<sup>20</sup> Clusters consist of between 5 and 25 families and are designated by FPs prior to the election.

<sup>21</sup> The procedure is similar to that used to elect provincial representatives to the lower house of the Afghan parliament (*Wolesi Jirga*).

<sup>22</sup> Three votes were assigned to voters in at-large elections in order to limit the probability of an insufficient number of candidates being elected to the CDC and thereby requiring multiple rounds of voting. The three votes are not ranked in any way.

<sup>23</sup> The results of the variation are described in Beath et al. (2009b) and Beath, Christia, Enikolopov (2012e)

<sup>24</sup> At least 50% of eligible voters had to vote for the referendum to be valid.



## Part II – Research Design

## I. Introduction

NSP-IE utilizes a matched-pair cluster randomization design, which is structured to provide rigorous, unbiased estimates of program impact. The design accommodates humanitarian and/or political sensitivities affecting village selection (see also Section V in Part I) and provides for internal validity in the event of village-level attrition in the sample. The following sections provide further details on the research design for the study.

Part II is organized into eight sections: II describes procedures used to select the NSP-IE sample, both at the district- and village-level; III outlines the matched-pair cluster randomization procedure used to assign treatment; IV reviews NSP implementation across the sample; V describes the survey instruments; VI outlines the structure and timing of data collection; VII describes the hypotheses for the study; VIII details the methodology; and IX discusses measures incorporated into the study to assure the accuracy and integrity of estimates.

## II. Sample Selection

The sample for the study comprises 500 villages spread evenly across ten districts in Balkh, Baghlan, Daykundi, Ghor, Herat, and Nangarhar provinces. The selection of these 500 villages proceeded in two stages. First, 10 districts were purposefully selected from 398 districts in Afghanistan. Second, 50 villages were purposefully selected in each of the 10 sample districts. The respective procedures are discussed below.<sup>25</sup>

### II.i. District Selection

Three main considerations guided the selection of sample districts:

1. *“New” NSP Districts.* Sample districts were selected from the 74 districts in which no villages had received NSP prior to spring 2007. In these districts, randomization was feasible due to the need to ration NSP across villages (see Section V in Part I).
2. *Security.* In order to reduce the security risk to enumerators and respondents, 34 of the 74 districts were eliminated from consideration.
3. *Minimum of 65 Villages.* Procedures devised to minimize adverse political or humanitarian consequences of the randomization stipulated the inclusion of 50 villages per district in the study and the specification of an additional 15 non-evaluation villages for mobilization by NSP. This limited districts that could be included in the study to those with 65 villages or more, of which there were 23 districts among the 74.

Ten districts contracted to FPs prior to the commencement of the baseline survey satisfied all of these three criteria: Balkh district in Balkh province (*Bal.*); Khost Wa Firing in Baghlan (*KWF*); Sang Takht in Daykundi (*S.T.*); Daulina district in Ghor province (*Dau.*); Adraskan (*Adr.*), Chisht-e Sharif (*C&S*), Gulran (*Gul.*), and Fersi in (*Fer.*) in Herat; and Hisarak (*His.*) and Sherzad (*She.*) in Nangarhar. FPs assigned to work in the ten sample districts represented a mix of international and local NGOs that reflects the diversity of FPs contracted to implement NSP across Afghanistan.

### II.ii. Village Selection

In each of the ten sample districts, the contracted FP selected the 50 sample villages to be included in the evaluation,<sup>26</sup> on the understanding that the evaluation team would randomly select 25 of the 50 to receive NSP. This approach was adopted to limit the costs and complications created by the NSP-IE for participating FPs, while also ensuring that sample villages would be eligible for NSP.<sup>27</sup>

In addition to the 50 sample villages, FPs selected 15 additional villages in the district for participation in NSP, but which were not included in the evaluation.<sup>28</sup> This procedure was adopted in order to ensure that the randomization did not overly impose on political and/or humanitarian imperatives dictating the prioritization of particular villages for NSP, which might otherwise limit non-compliance with randomization assignments.

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<sup>25</sup> For further details on sample selection, see Section IV.1 of [Beath, Christia & Enikolopov \(2008\)](#)

<sup>26</sup> The evaluation team constrained villages that could be selected to those for which the evaluation team possessed GPS coordinates and demographic and infrastructure data. Maps of selected and unselected villages are in Appendix IV of [Beath, Christia & Enikolopov \(2008\)](#)

<sup>27</sup> Villages with less than 25 households are ineligible. Security or other factors may also prevent NSP from being implemented in villages.

<sup>28</sup> The evaluation team took all feasible steps to ensure that the 15 priority villages were located a significantly far distance away from the evaluation villages.

Figure 11: Ten Sample Districts



### II.iii. Representativeness of Sample and External Validity

Although the NSP-IE sample was purposefully selected, it depicts many of the key characteristics of rural Afghanistan. With the exception of the south, the sample covers all major regions of the country. The ten districts also provide a depiction 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.

Table 2: Comparison of NSP Evaluation Sample with Representative Sample of Afghanistan's Rural Population

| Indicator                                      | NRVA (Rural Households) |       |        | NSP Midline Survey Households |       |       | t-statistics |
|------------------------------------------------|-------------------------|-------|--------|-------------------------------|-------|-------|--------------|
|                                                | Mean                    | S.E.  | Obs.   | Mean                          | S.E.  | Obs.  |              |
| Age of Male Respondent                         | 43.04                   | 0.12  | 16,143 | 42.68                         | 0.23  | 4,660 | 1.38         |
| Income from Primary Source ( <i>Afghanis</i> ) | 60,950                  | 468   | 16,065 | 58,618                        | 1155  | 4,554 | 1.87         |
| Household Engaged in Agriculture               | 0.661                   | 0.004 | 16,143 | 0.723                         | 0.007 | 4,625 | -7.95        |
| Access to Electricity                          | 0.280                   | 0.004 | 16,121 | 0.304                         | 0.007 | 4,656 | -3.07        |
| Last Child Born is Alive                       | 0.994                   | 0.001 | 9,861  | 0.975                         | 0.004 | 1,736 | 4.94         |
| Last Birth Delivered at Home                   | 0.871                   | 0.004 | 9,817  | 0.892                         | 0.007 | 1,744 | -2.54        |
| Last Birth Delivered in Hospital               | 0.065                   | 0.003 | 9,817  | 0.036                         | 0.004 | 1,744 | 5.63         |

Note: S.E. is standard errors for the mean estimates; Obs. is the sample size for the respective sample; and t-statistics are for the difference in means.

At the household level, there appear to be some differences between the sample and the population of rural Afghanistan. Table 2 provides a mean-level comparison of characteristics of household respondents for the midline survey and those of the 2007–08 National Risk and Vulnerability Assessment (NRVA), which was administered to a random stratified sample of the population of Afghanistan. Households in the NSP-IE sample are, on average, 4 percent poorer, have worse access to medical services and slightly better access to electricity. Generally, however, the NSP-IE sample seems conducive to the extrapolation of estimates across regions of rural Afghanistan other than the southern provinces and under the assumption that the identified differences in sample and population characteristics (or any differences in other aspects of the distribution) do not substantially alter program impacts.

## III. Treatment Assignment

Of the 500 villages selected to be in the sample, 250 were randomly selected to receive NSP. In order to improve statistical balance between villages in the treatment and control groups, a matched-pair cluster randomization procedure was applied in four stages across villages included in the sample:<sup>29</sup>

<sup>29</sup> For further details, see Section IV.2 of [Beath, Christia & Enikolopov \(2008\)](#)

Village Clusters - To minimize the potential for spillovers between treated and untreated units, villages located within one kilometer were grouped in clusters. Across the sample, 107 villages were assigned to 41 village clusters.<sup>30</sup>

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 background characteristics, subject to the constraint that villages were not in the same cluster.<sup>31</sup>

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 estimates, clusters of villages were assigned the same status.<sup>32</sup>

Clustering Violations - In a few districts, the large number of clustered villages precluded the co-assignment of clustered villages. For such cases, the number of violations was minimized through a simulation approach.<sup>33</sup>

The matched-pair cluster randomization procedure was successful in statistically balancing treatment and control groups – across 19 key variables for which data was collected in the baseline survey, the difference between the means of the two groups is always smaller than 6 percent of the standard deviation.<sup>34</sup> Maps of treatment assignments are presented in [Appendix VI](#).

## IV. NSP Implementation in Treatment Villages

Across the ten sample districts, NSP activities commenced following the baseline survey in September 2007. The following sections detail the duration and nature of CDC elections ([IV.i](#)), project selection ([IV.ii](#)), and project implementation ([IV.iii](#)) across treatment villages.

### *IV.i. CDC Elections*<sup>35</sup>

CDC elections were held across treatment villages in late 2007 and early 2008 according to either of the two procedures outlined in [Section VI.i](#) in Part I. The evaluation team dispatched monitors to 131 of the 250 treatment villages to observe CDC elections and conduct post-vote interviews with male villagers. Monitors' reports indicated that elections were professionally administered by FPs and that villagers had a clear understanding of the process.

CDC elections generally conformed to best practices. All polling stations visited had an eligible voter registration list, 96 percent checked names against a registration list, and three-quarters of villages marked the thumbs of voters with ink. Monitors judged that 87 percent of polling stations assured privacy. In only 13 villages did monitors express doubts as to the fairness of the election. Monitors' reports also indicated that FPs correctly implemented the prescribed neighborhood or at-large cluster elections in the majority of cases. In nearly every village, monitors adjudged vote counts to be accurate and election results were announced immediately following the vote count. The mean attendance at the announcement of the election results was 47 persons, an average of 17 percent of registered voters. In only three villages were incidents reported following the announcement of the CDC election results.

Figure 12: CDC Election in Daulina



Figure 13: CDC Election in Balkh



<sup>30</sup> Maps of village clusters are in Appendix VI of [Beath, Christia & Enikolopov \(2008\)](#)

<sup>31</sup> Data consisted of demographic and geographic characteristics of villages from the Household Listing Survey conducted by the Central Statistics Office between 2003 and 2004. Maps of matched pairs are in Appendix VII of [Beath, Christia & Enikolopov \(2008\)](#)

<sup>32</sup> Although this makes the assignment of treatment status in neighboring villages interrelated, the unconditional probability of assignment to a particular status is the same for all the villages, so that the main identifying assumption is not violated.

<sup>33</sup> The clustering restriction was violated in 17 village clusters (covering 44 villages).

<sup>34</sup> See Section IV.2 of [Beath et al. \(2010\)](#)

<sup>35</sup> For further details on CDC elections in treatment villages, see [Beath, Christia & Enikolopov \(2008b\)](#)

Results from 1,675 post-vote interviews indicate that male villagers perceived the process as democratic. Respondents indicated that candidates' honesty and religious piety ranked highest in determining voting decisions, followed by the candidate's education and commitment to the community. 90 percent of voters correctly indicated that MRRD, NSP and/or the FP organized the election. When asked about the main functions of CDCs, 74 percent answered that the CDC exists to help villagers; 53 percent noted project implementation; 22 percent mentioned resolution of intra-village disputes; and 14 percent ascribed to CDCs the role of village council.

Despite the high quality of the election procedures, votes cast in CDC elections were concentrated on a relatively limited number of candidates. Seven out of every ten men who received votes was elected, with 17 out of every 20 female vote-getters elected. Wide variation was, however, observed across the 10 sample districts, with the percent of male vote-getters being elected ranging from 48 percent in Balkh district to 97 percent in Gulran. The high degree of vote concentration translated into a small number of unelected candidates. The median female CDC election resulted in no unelected candidates, as opposed to two unelected candidates for the median male CDC election.

Across treatment villages, the median CDC consists of seven male and seven female members. The stipulation that CDCs be gender-balanced has been largely adhered to. Of 244 treatment villages with available data, 215 had gender-balanced CDCs, 23 had CDCs with more male than female members, and 6 had more female than male members.

#### *IV.ii. Project Selection*<sup>36</sup>

Following CDC elections and the drafting of a community development plan, treatment villages selected projects, which were organized according to one of the two alternative procedures outlined in Section VI.ii in Part I. Between November 2007 and July 2008, monitors were dispatched to 127 villages to observe selections and conduct post-selection interviews with male villagers. Monitors' reports indicated that selections were generally professionally executed by FPs and that villagers had a clear understanding of the process.

In meeting villages, an average of 140 men and women attended (more than a third of adult village population), in addition to an average of 14 CDC members. However, only one-of-eight male and one-of-twenty female villagers voiced an opinion, compared to four-of-nine male and one-of-two female CDC members. Referenda were administered in a similar manner to the CDC elections. Participation rates were high, with more than 250 people voting (60 percent of the adult village population). 99 percent of monitored polling stations had lists of eligible voters and 97 percent checked names off a registration list. In 83 percent of villages, voters' privacy was adjudged to be assured. In every referendum village, options receiving the most votes were selected and only in one village did a monitor consider the votes to have not been counted fairly.

In both meeting and referendum villages, four projects were selected on average. Although the types of projects selected through both procedures were generally similar, meeting villages were slightly more likely to select transport and community center projects, while referendum villages selected fewer community center projects and more flood protection projects. Results of 1,238 post-selection interviews completed with male villagers across the 127 monitored villages indicate that the process enjoyed a high degree of legitimacy. 79 percent of respondents in meeting villages and 77 percent in referendum villages said that villagers had at least a partial role in the selection process. Although 40 percent of respondents in both groups reported that some important projects had not been considered, almost all respondents expressed satisfaction with the procedure.

Figure 14: Vote Counting in Balkh

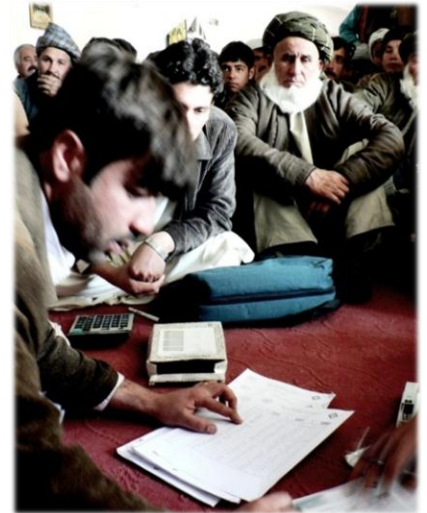


Figure 15: NSP-Funded Hand Pump in Balkh



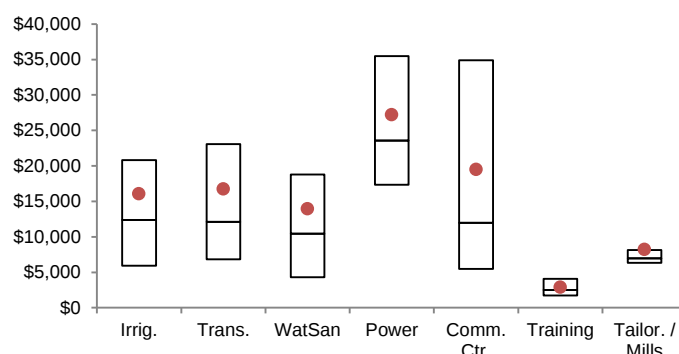
<sup>36</sup> For further details on project selection processes in treatment villages, see [Beath, Christia & Enikolopov \(2009a\)](#)

#### IV.iii. Project Implementation

Across treatment villages, the first project was initiated in April 2008, with the last project completed in September 2011. The total number of projects implemented varied from 1 to 12, with a median of 2 projects. Irrigation projects (*Irrig.*)<sup>37</sup> were the most popular, accounting for 25 percent of projects, followed by water supply and sanitation (*WatSan* – 21 percent);<sup>38</sup> transport (*Trans.* – 19 percent);<sup>39</sup> literacy and vocational training courses (*Training* – 17 Percent); power (10 percent);<sup>40</sup> community centers (*Comm. Ctr.* – 4 percent); and tailoring machines or flour mills (*Tail. / Flour* – 3 percent). Across treatment villages, project construction took a median period of 10.2 months from initiation, ranging up to a maximum of 28 months.

As displayed in Figure 16, there was substantial variation in costs within and between project types. Power projects were generally the most expensive, with a median cost of \$23,600. Community centers were also expensive, but with large variation. Irrigation, transport, and water supply and sanitation projects cost a median amount of \$12,400, \$12,100, and \$10,400, respectively. Literacy and vocational training projects and the provision of tailoring machines and flour mills cost the least on average, with medians of \$2,500 and \$7,000, respectively. Figure 18 displays the average amount per village allocated to each type of project in each of the sample districts. Note that although training courses were relatively numerous (see Figure 17), they accounted for a small fraction of budgetary expenditure compared to irrigation, transportation, and power projects.

Figure 16: Box Plot of Project Costs, by Type



Note: Top line is 3<sup>rd</sup> quartile, middle is median, and bottom is 1<sup>st</sup> quartile. Red dot is mean. Source is NSP monitoring data for treatment villages.

Figure 17: Number of Projects Implemented in Treatment Villages

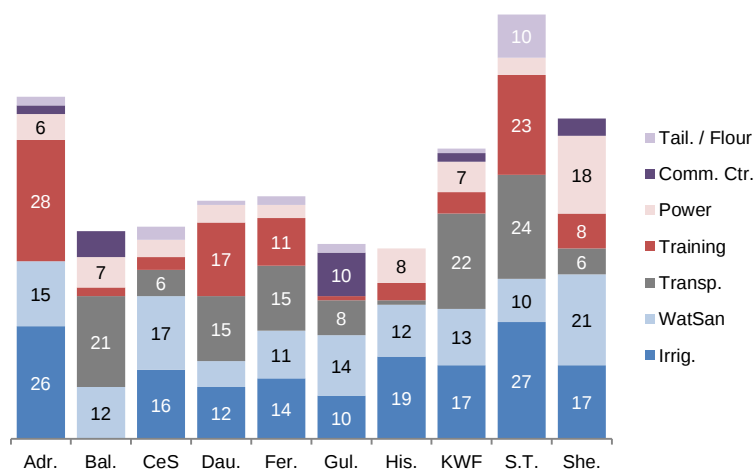
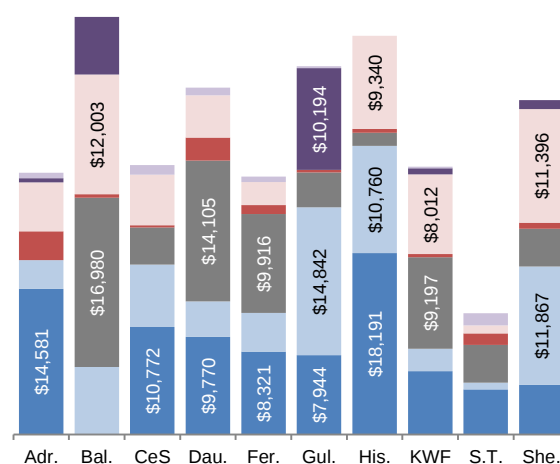


Figure 18: Average Project Allocation per Village



Across treatment villages, the median block grant was \$27,000. As block grant size is determined by the number of households in a village, large variation was observed across the sample in the size of block grants (which ranged from a low of \$5,600 to a high of \$60,400),<sup>41</sup> but the size of the block grant per capita was relatively constant. The median block grant per capita received by treatment villages was \$38, ranging from a low of \$21 to a high of \$64.<sup>42</sup> This variation was caused almost entirely by variation in the number of persons per household, with the value of block

<sup>37</sup> Includes construction, cleaning, or rehabilitation for canals, *kariz*, streams, dams, reservoirs, pipe schemes, intakes, and gabion walls.

<sup>38</sup> Includes projects to construct deep wells, water supply systems, and latrines

<sup>39</sup> Includes road surfacing, road access, culvert construction, retaining wall, bridge and foot bridge construction

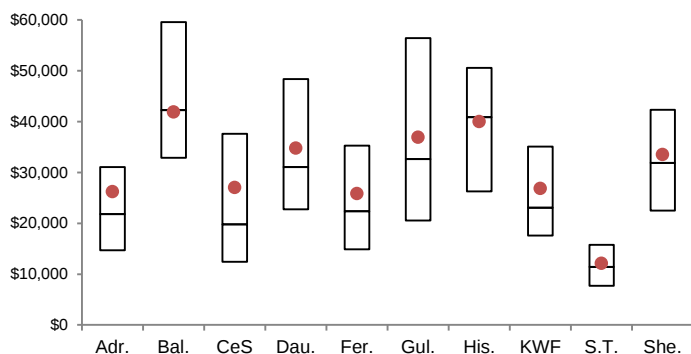
<sup>40</sup> Includes micro-hydro, solar, and power lines

<sup>41</sup> 1<sup>st</sup> quartile for block grants in treatment villages was \$17,600 and the 3<sup>rd</sup> quartile was \$42,300. The mean block grant was \$30,700.

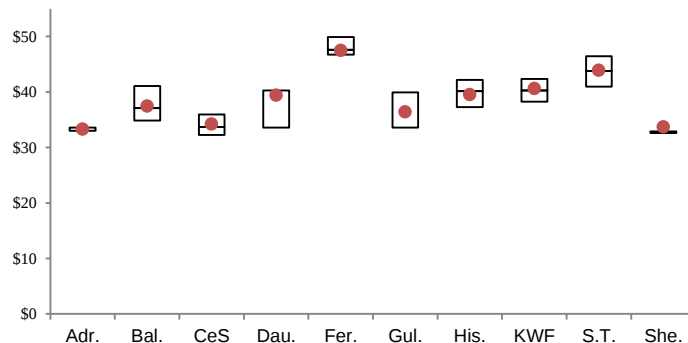
<sup>42</sup> 1<sup>st</sup> quartile for per capita block grants to treatment villages was \$33 and the 3<sup>rd</sup> quartile is \$43. The mean block grant is \$39.

grants per household exhibiting near-uniform values of \$200. Block grants were ordinarily disbursed in multiple tranches, with villages receiving an average of 2.7 payments.

**Figure 19: Size of Block Grants per Village, by District**

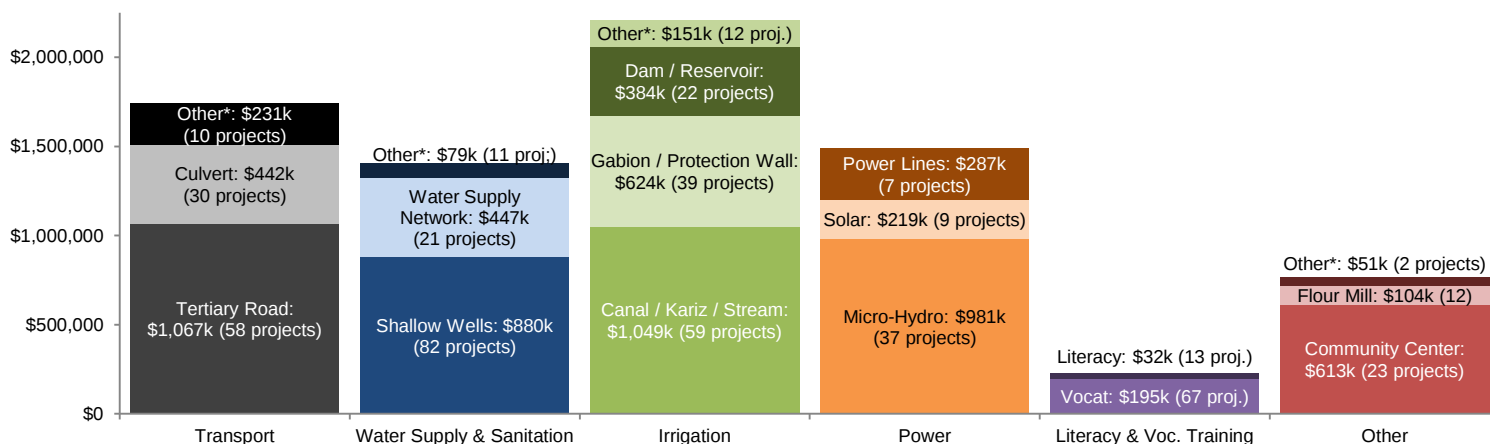


**Figure 20: Size of Block Grants per Capita, by District**



Information on the volume of block grant funding allocated across treatment villages to different types of projects is presented in Figure 21. Transportation projects accounted for 19 percent of projects and 22 percent of total block grants expended in treatment villages; water supply and sanitation projects for 22 percent of projects and 18 percent of expenditure; irrigation projects for 26 percent of projects and 28 percent of expenditure; power projects for 10 percent of projects and 19 percent of expenditure; vocational training and literacy courses for 16 percent of projects and 3 percent of expenditure; and other projects for 7 percent of projects and 10 percent of expenditure. In total, \$7.8 million was budgeted for the implementation of 514 projects across the treatment villages.

**Figure 21: Projects Financed by NSP in Treatment Villages, by Aggregate Funding Allocated**



*Note:* Data obtained from NSP sub-project monitoring database and covers 514 projects initiated in 247 treatment villages between April 2, 2008 and February 22, 2011. “Other” transport projects include foot bridges (\$90k, 5 projects); secondary roads (\$84k, 2); retaining wall (\$40k, 2); and bridges (\$17k, 1). “Other” water and sanitation projects include deep wells (\$54k, 4); latrines (\$18k, 5); and water supply reservoir (\$8k, 2). “Other” irrigation projects include aqueducts (\$81k, 4); intakes (\$51k, 5); pipe scheme (\$13k, 1); spring box (\$6k, 1); and water divider (\$1k, 1). “Other” other projects include primary school building construction (\$47k, 1) and tailoring machines (\$4k, 1).

## V. Survey Instruments

The baseline, midline, and endline surveys consisted of four survey instruments that ascertained key information from female (V.iii) and male (V.i) villagers and female (V.iv) and male (V.ii) village leaders, as described below.<sup>43</sup>

### V.i. Male Household Questionnaire (MH)

For the baseline survey, the MH was administered to ten randomly selected male heads-of-household in each village.<sup>44</sup> For the midline survey, enumerators were provided with a list of the ten baseline MH interviewees and asked to administer the MH to this person or, if unavailable, to a male member of the same household or, failing that, to a co-

<sup>43</sup> Instruments for all three surveys are available at the [NSP-IE website](#).

<sup>44</sup> Households were randomly sampled based on a skip-pattern method, with intervals proportional to the size of the village.

habitant of the baseline respondent. If it was not possible to find a household surveyed at baseline, enumerators were asked to apply the procedure applied at baseline to randomly select a new household.

During the endline survey, enumerators were similarly provided with a list of the ten MH interviewees from the midline survey and asked to administer the MH to this person or, if unavailable, to a male member of the same household or other co-habitant. If a household surveyed during the midline could not be located, enumerators were instructed to select a household surveyed in the baseline, but not surveyed in the midline. If it was not possible to find a household surveyed at midline or baseline, enumerators were asked to apply the procedure applied at baseline to randomly select a new household.

Figure 22: Male Household Interview in Herat Province



Figure 23: Male Focus Group in Herat Province



Figure 24: Female Household Interview in Nangarhar Province



#### *V.ii. Male Focus Group Questionnaire (MG)*

The MG, a quantitative instrument,<sup>45</sup> was administered to a group of between six and nine key decision makers (which may include village leaders and/or members of the village council) convened by the enumerator. Midline and endline survey enumerators were not directed to specifically request the participation of those who took part in previous focus groups, although given the common method by which the focus groups were composed, some overlap is expected.

#### *V.iii. Female Household Questionnaire / Female Individual Questionnaire (FH / FI)*

In the midline and endline surveys, the FH was administered to the wife of the MH participant, or to another senior woman in the same household. The endline FH also included a full household roster (abbreviated “FHR”) and short sections administered to a girl aged between 7 and 10 in the household (abbreviated “FC”), if present, and a maternal section administered to another woman under 50 (abbreviated “FM”), if not the respondent and if available. During the baseline survey, the FH was not administered. Instead, women who participated in the FG were invited to subsequently participate in an individually-administered interview (FI).

#### *V.iv. Female Focus Group Questionnaire (FG)*

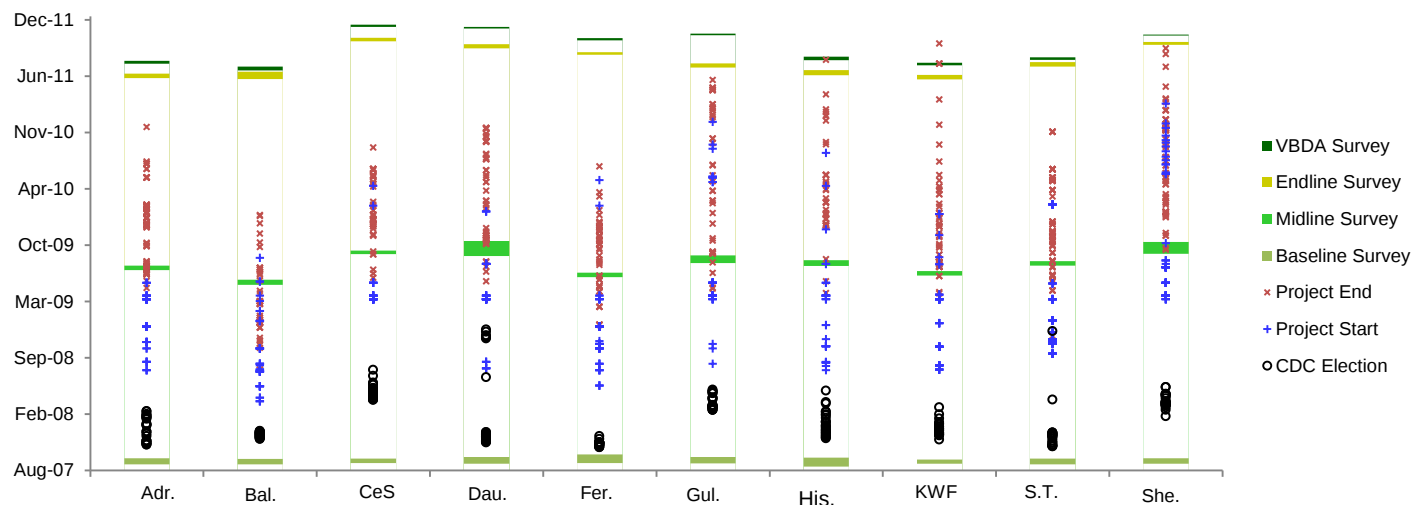
The FG, also a quantitative instrument, was administered to a group of between six and nine women, who are expected to be wives or other relatives of the village leaders and/or members of the village women’s council. As with the MG, midline and endline enumerators did not directly seek the participation of those who took part in previous focus groups.

<sup>45</sup> For this and all other questionnaires, enumerators asked a fixed list of questions (identical in treatment and control villages) and did not engage in semi-structured discussions sometimes undertaken in focus group discussions.

## VI. Survey Activities

Data collection occurred across multiple stages, comprising baseline (VI.i), midline (VI.ii), and endline surveys (VI.iii), as well as a village benefit distribution analysis (VBDA) survey (VI.iv).<sup>46</sup> Figure 25 compares the timing of the surveys to key stages in NSP implementation in treatment villages. Further detail on the surveys is provided below.

Figure 25: Temporal Distribution of Survey Activities and NSP Implementation in Sample Districts



### VI.i. Baseline Survey<sup>47</sup>

The baseline survey collected data used to assess the pre-treatment balance of the treatment and control villages. It was administered across 500 sample villages between August 15 and September 29, 2007, prior to any NSP activities in the sample villages. The survey covered 13,899 male and female villagers and village leaders, including 4,895 male household (MH) respondents in 500 villages, 5,334 male focus group (MG) participants in 489 villages, 3,670 female focus group (FG) participants in 493 villages, and 3,515 female individual (FI) respondents in 500 villages.

### VI.ii. Midline Survey<sup>48</sup>

The midline survey collected data used to assess the immediate effects of CDC creation and initiation of project implementation. It was administered across 474 villages between May 21 and October 24, 2009, at which point all complying treatment villages had elected CDCs and selected projects, but only 18 percent of projects had been completed.<sup>49</sup> The survey covered 14,889 male and female villagers and village leaders, including 4,666 MH respondents in 473 villages, 3,215 MG participants in 469 villages, 2,809 FG participants in 427 villages, and 4,234 female household (FH) respondents in 431 villages.<sup>50</sup>

For the midline male household questionnaire, enumerators sought participation of baseline male household respondents or, in their absence, a relative or cohabitant of the respondent. 58 percent of midline male household respondents were interviewed at baseline; 6 percent of midline respondents are

Figure 26: Midline Pilot Test Interview in Herat Province



<sup>46</sup> The four surveys were implemented by the Vulnerability Analysis Unit of MRRD. The evaluation team, World Bank staff assisting the evaluation team, and consultants recruited by the evaluation team oversaw the recruitment, training, and management of survey teams.

<sup>47</sup> A full summary of the baseline survey results is provided in [Beath, Christia & Enikolopov \(2008\)](#)

<sup>48</sup> A full summary of the midline survey results is provided in [Beath et al. \(2010\)](#)

<sup>49</sup> On average, projects were approximately 70 percent complete at the time of the survey.

<sup>50</sup> 11 treatment and 15 control villages, located primarily in the districts of Sherzad and Daulina, were not surveyed due to adverse security conditions. The administration of female questionnaires in an additional 21 control and 22 treatment villages in Sherzad, Daulina, Adraskan, and Chisht-e Sharif were also precluded.

related to a baseline respondent; and 2 percent of midline respondents reside at the same compound as a baseline respondent, but are not related to the respondent.<sup>51</sup> For the remaining 34 percent of midline respondents, replacements were randomly selected using the same rules employed at baseline.<sup>52</sup>

**Figure 27: Midline Pilot Test Interview in Herat Province**



### VI.iii. Endline Survey

The endline survey assesses impacts of the full suite of NSP activities. It was administered across 447 villages between May 21 and October 16, 2011, at which point 99 percent of projects in treatment villages were complete, but prior to NSP implementation in control villages. The survey covered 13,811 male and female villagers and village leaders, including 4,354 MH respondents in 447 villages, 2,835 MG participants in 415 villages, 2,779 FG participants in 374 villages, and 3,843 FH respondents in 396 villages.<sup>53</sup>

For the male household questionnaire, enumerators sought participation of midline male household respondents or, in their absence, a respondent's relative or cohabitant, or, in their absence, baseline male household respondents, relatives, or cohabitants. 44 percent of endline male household respondents were interviewed at both baseline and midline, 67 percent were interviewed at midline only, and 4 percent were interviewed at baseline only.<sup>54</sup> For the 29 percent of endline male household respondents without any connection to baseline or midline respondents, replacement respondents were randomly selected using the same rules employed at baseline and midline.<sup>55</sup> A detailed analysis of the correlation between attrition and treatment status is provided in Section IX.iii. Table 3 summarizes the overlap in respondents in each of the three surveys.

**Table 3: Number of Male Household Respondents at Baseline, Midline, and Endline Surveys**

|                 |                 | Baseline Survey |         | Midline Survey |         | Endline Survey |         |
|-----------------|-----------------|-----------------|---------|----------------|---------|----------------|---------|
|                 |                 | Treatment       | Control | Treatment      | Control | Treatment      | Control |
| Baseline Survey | Same Individual |                 |         | 1,354          | 1,341   | 1,046          | 1,132   |
|                 | Same Household  | 2,486           | 2,492   | 185            | 155     | 201            | 211     |
|                 | Same Compound   |                 |         | 109            | 121     | 65             | 70      |
| Midline Survey  | Same Individual |                 |         |                |         | 1,434          | 1,478   |
|                 | Same Household  |                 |         | 2,367          | 2,299   | 188            | 182     |
|                 | Same Compound   |                 |         |                |         | 90             | 104     |
| Endline Survey  | Same Individual |                 |         |                |         |                |         |
|                 | Same Household  |                 |         |                |         | 2,193          | 2,161   |
|                 | Same Compound   |                 |         |                |         |                |         |

Note: Values represent number of male household questionnaires administered in each category. Boxes along the diagonal represent the number of questionnaires administered in the respective survey, while off-diagonal boxes represent the number of respondents which overlap in the respective category (same individual, household or compound) and the respective surveys.

A summary of the characteristics of endline interviews and respondents is presented in Table 4. Focus groups were the longest instruments, clocking in each at 83 minutes on average, while the MH and FH took an average of 51 and 53 minutes, respectively. MG participants were the oldest of any of the four groups, followed by MH, FG, and FH

<sup>51</sup> The predominant reason for enumerators not interviewing baseline respondents was that the person was away from home. Less than 0.5 percent of the attrition was due to respondents from the baseline survey refusing to be interviewed again.

<sup>52</sup> See Section V.i below.

<sup>53</sup> 33 treatment and 26 control villages, located in Adraskan (1), Daulina (13), Hisarak (9), Gulran (20), Khosht Wa Firing (1), and Sherzad (15), were not surveyed due to adverse security conditions. The administration of female questionnaires in an additional 24 control and 27 treatment villages in Adraskan (1), Chisht-e Sharif (2), Hisarak (12) and Sherzad (36) was also precluded.

<sup>54</sup> 8 percent of endline respondents are related to baseline and midline respondents, 10 percent are related to midline respondent only, 5 percent are related to baseline respondent only; 3 percent reside at the same compound as respondent surveyed at baseline and midline, 4 percent reside at the same compound as midline respondent only, and 0.4 percent reside at same compound as baseline respondent only.

<sup>55</sup> The predominant reason for enumerators not being able to interview baseline or midline respondents (accounting for 77 percent of attrition) was that the individual was away from the village. The next most common reason (21 percent) was that enumerators were unable to locate the dwelling. Across the sample, only 3 baseline or midline respondents refused to participate in the endline interview.

respondents. MG participants were, on average, the best educated, followed closely by MH respondents. Only a small fraction of either FG or FH participants had received any formal education.

Table 4: Characteristics of Endline Survey Interviews and Respondents

| Indicator                                              | Instrument | Median    |            | Mean       |            | t-Statistic for Mean Difference |
|--------------------------------------------------------|------------|-----------|------------|------------|------------|---------------------------------|
|                                                        |            | Treatment | Control    | Treatment  | Control    |                                 |
| Interview Duration                                     | MH         | 50 mins.  | 50 mins.   | 52.0 mins. | 51.3 mins. | -0.202                          |
|                                                        | FH         | 52 mins.  | 53 mins.   | 53.0 mins. | 53.5 mins. | 0.291                           |
|                                                        | MG         | 80 mins.  | 80 mins.   | 82.0 mins. | 83.0 mins. | 0.232                           |
|                                                        | FG         | 80 mins.  | 78 mins.   | 83.9 mins. | 82.5 mins. | -0.709                          |
| Age of Respondent                                      | MH         | 40 years  | 41 years   | 43.5 years | 43.2 years | 0.204                           |
|                                                        | FH         | 26 years  | 25 years   | 27.0 years | 26.5 years | 0.755                           |
|                                                        | MG         | 45 years  | 46.5 years | 46.0 years | 47.5 years | -3.826***                       |
|                                                        | FG         | 38 years  | 35 years   | 38.2 years | 36.6 years | 3.874***                        |
| Respondent Has Received Some Secular, Formal Education | MH         | No        | No         | 30.3%      | 30.9%      | -0.882                          |
|                                                        | FH         | No        | No         | 4.2%       | 4.1%       | 0.501                           |
|                                                        | MG         | No        | No         | 33.7%      | 34.1%      | 0.405                           |
|                                                        | FG         | No        | No         | 6.9%       | 8.0%       | -0.388                          |

Note: Standard errors for t-statistics clustered by village-clusters and exclude villages for which counterpart matched-pairs are missing.

## VI.in. Village Benefit Distribution Analysis<sup>56</sup>

Following the completion of the endline survey and between June 22 and December 1, 2011,<sup>57</sup> the VBDA was implemented across sample villages to assess both longer-term effects of CDC creation on local governance and the effects of variation in the involvement of different groups in the distribution.

The VBDA consisted of three stages: (i) informing village leaders of the forthcoming distribution of food aid and requesting that they prepare a list of intended beneficiaries; (ii) distributing aid to village leaders (three days later); and (iii) administering household surveys to 12 randomly-selected village households and 15 recipients of food aid (ten days later).<sup>58</sup> In total, 5,713 male and 5,136 female household surveys were administered. Due to security concerns, wheat was not able to be delivered to 9 of the 500 sample villages. Security concerns also precluded the administration of male and female surveys in 100 villages and female surveys specifically in an additional 44 villages. Results of the VBDA are presented in detail in a separate report, but are summarized in Section III.iv of Part III.

Figure 28: Wheat Distribution Pilot Test in Balkh Province



## VII. Hypotheses

The study estimates the direction and magnitude of midline and endline impacts of NSP on five families of outcomes: (i) access to services, infrastructure, and utilities; (ii) economic welfare; (iii) local governance; (iv) political attitudes and state-building; and (v) social norms. The five families collectively consist of 20 groups, which in turn divide into 50 hypotheses. The 50 hypotheses were not formulated to judge the effectiveness of NSP in meeting pre-identified program objectives, but rather to more broadly explore the reaches of program impact. As such, the 50 hypotheses include both formal ‘project development objectives’ as well outcomes of general interest identified by the research

<sup>56</sup> A full summary of the VBDA results is provided in Beath, Christia & Enikolopov (2013)

<sup>57</sup> In all districts, the VBDA was implemented following the completion of the endline survey in all villages in the specific district.

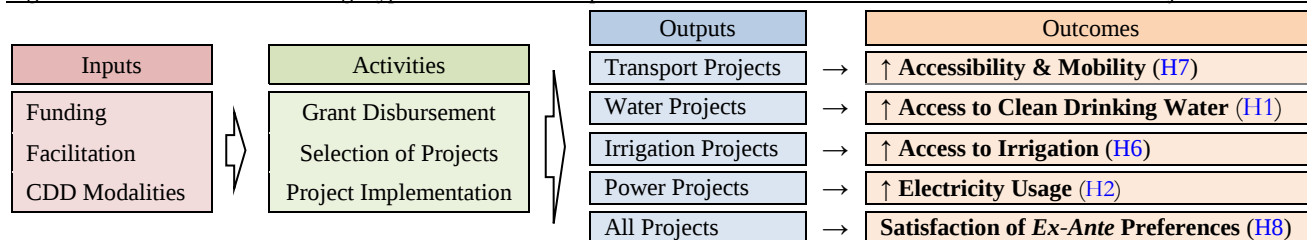
<sup>58</sup> Recipients were identified both by the list of intended beneficiaries prepared by village leaders and by reports from other villagers.

team.<sup>59</sup> The 50 hypotheses and the underlying rationale for their formulation, given the inputs and processes of NSP, are described in the sections below, with results chains illustrated with simplified diagrams.

### VII.i. Access to Services, Infrastructure, and Utilities

NSP seeks to improve access to basic services and infrastructure by disbursing block grants to finance village-level projects. Per the CDD paradigm, NSP provides for participatory project selection. This practice introduces some variation across villages in projects, although there is nonetheless substantial commonality,<sup>60</sup> with 90 percent of projects corresponding to one of four categories: transportation; water and sanitation; irrigation; and power.<sup>61</sup>

**Figure 29: Results Chain Exhibiting Hypothesized Direct Impacts of NSP on Access to Infrastructure & Utilities and Project Preferences**



Accordingly, NSP is expected to directly induce improvements in: access to clean drinking water (H1); access to electricity (H2); access to irrigation (H6); and improve village accessibility and mobility of the rural population (H7). The use of participatory processes in project selection should also enable NSP to successfully meet the *ex-ante* project preferences of villagers (H8). A stylized representation of these hypotheses and the hypothesized causal chains that underlie them are depicted in Figure 29.

NSP may also indirectly affect outcomes pertaining to services facilitated by NSP activities, but not directly related to NSP projects. For instance, the creation of a gender-balanced CDC may improve women’s access to informal counseling networks (H3) through providing a venue whereby village women can legitimately congregate.<sup>62</sup> Children’s access to education may also improve (H4) as a result of transportation projects, as well as due to impacts of NSP on

<sup>59</sup> For the third phase of NSP (2010+), the PDO is to “build, strengthen, and maintain Community Development Councils (CDCs) as effective institutions for local governance and socio-economic development”. The key outcome indicators identified by the program to assess the achievement of this PDO are: (i) minimum of “70% of sampled communities recognize CDCs as the legitimate institution and representative of communities”; (ii) minimum of “60% of CDCs perform their functional mandates in the areas of community development and coordination, project implementation, and conflict resolution”; (iii) minimum of “70% of sampled communities have improved access to services (transport, irrigation, water supply etc.)”; (iv) minimum of “70% of sampled women representatives in the CDCs take active part in decision-making related to community development”; and (v) “[a]t least 50% of beneficiaries are female” (World Bank [2010], p. 8 - 9). For the second phase of NSP (2006 – 10), the PDO was to “lay the foundations for a strengthening of community level governance, and to support community-managed subprojects comprising reconstruction and development that improve access of rural communities to social and productive infrastructure and services”. The key outcome indicators were: (i) to enable “[a]round 21,600 . . . CDCs across the country [to] avail of basic social and productive infrastructure and other services”; (ii) to achieve “ERRs for community projects [in excess of] 15%”; to ensure that “O&M is in place for the completed projects and that the infrastructure services are use [sic] appropriately by the targeted communities for the purposes intended”; to ensure that “[a]t least 60% of CDCs [are] functioning to address critical development needs as identified by villages”; and (iv) to provide for “an increased level of participation of women in the community decision making [sic]” (World Bank [2006], p. 33). Note that the key outcome indicators identified by the program consist mainly of outputs specific to treatment areas and are thus inappropriate for this type of study, which includes control and treatment villages and seeks to explore impacts on general outcomes.

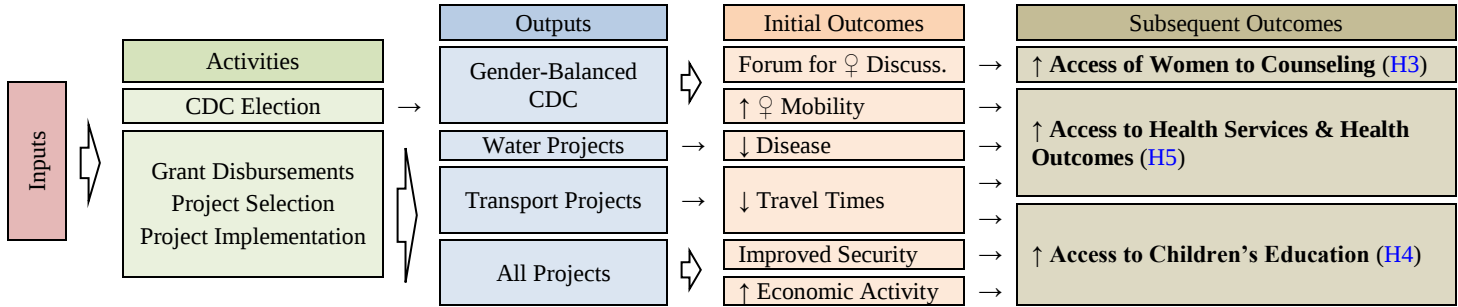
<sup>60</sup> One of the main reasons for this standardization is the application of a ‘negative list’ by NSP, which precludes villages from using NSP funding to implement certain types of projects. In addition, FP staff may follow a practice of encouraging villages to select certain types of projects with which they are familiar and thus capable of providing technical support and/or for which local suppliers exist.

<sup>61</sup> Transportation projects encompass tertiary resurfacing and rehabilitation and the construction of bridges and culverts; water and sanitation projects include well-boring, latrines, and supply systems; irrigation projects cover flood protection walls, water reservoirs, dams, canals, *kariz*; and power projects include diesel, solar, and micro-hydro generators and power lines. In addition, NSP also regularly finances literacy and vocational training courses and the construction of community centers. See Section II in Part I for further information on types of projects funded by NSP.

<sup>62</sup> Qualitative evidence suggests such impacts. Barakat (2006), for instance, reports that the CDC provides women with a forum where they can discuss “health, domestic violence, literacy” and other issues they “could not discuss before” (p. 59 – 60) and goes on to cite one village where “the women said they had not even known each other, though [neighbors], until they were able to meet in the women’s [council]” (p. 84). Echavez (2011) also notes that the “women’s CDC has become a venue for discussion on relevant issues such as health, domestic violence and literacy” (p. 27) and that the “CDC created a safe space for women to come together and discuss issues, problems and solutions. All the CDC members . . . perceived this change as a milestone in their lives.” (p. 30).

local security, educational outcomes, and the value placed of male and/or female education. Similarly, NSP may impact access to health services and health outcomes (H5) due to the effects of water and sanitation projects on the incidence of water-borne diseases; the effects of transport projects on travel times to administrative centers; and the effects of the creation of gender-balanced CDCs on female mobility. These hypotheses are presented in Figure 30.

Figure 30: Results Chain Exhibiting Hypothesized Indirect Impacts of NSP on Access to Services

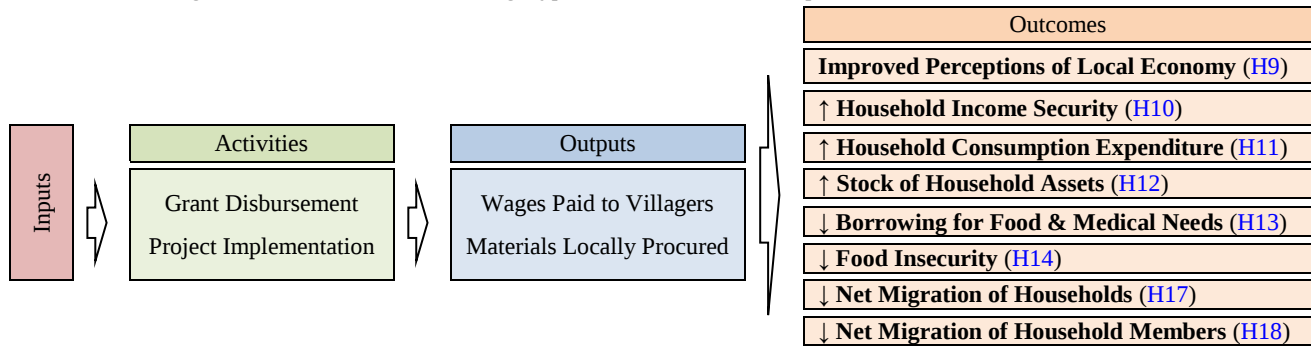


## VII.ii. Economic Welfare

Impacts of NSP activities on broader economic outcomes may arise in the short-term due to the ‘stimulus’ effect created by the infusion of block grants and in the medium-term due to the completion of village infrastructure projects.

In the short-term, the infusion of block grants and ensuing project construction should increase local disposable income through activities such as the payment of wages to laborers and procurement of raw materials.<sup>63</sup> This effect is expected to be temporary in nature, but may nonetheless contribute to inducing short-term increases in: the proportion of villagers who positively perceive the local economy (H9); household income security (H10); average household consumption expenditure (H11); and stocks of household assets (H12), and reductions in: borrowing for food and medical needs (H13); food insecurity (H14); and the net out-migration of households (H17) and household members (H18). These hypotheses and the underlying causal chains are presented in simplified form in Figure 31.

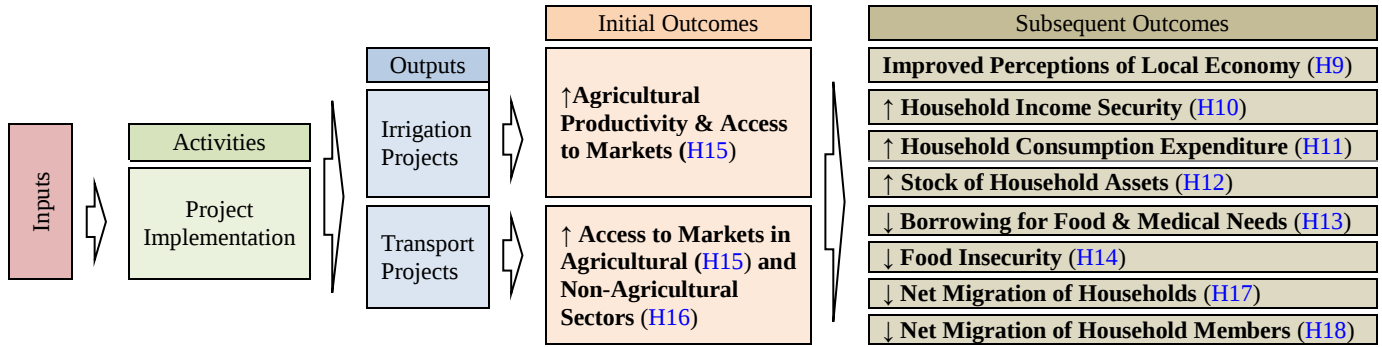
Figure 31: Results Chain Exhibiting Hypothesized Short-Term Impacts of NSP on Economic Welfare



In the medium-term, the completion of infrastructure projects should produce general improvements in economic outcomes. Increases in the availability of irrigation should increase land use, agricultural productivity, yields, and thereby farm income. Improvements in road and bridge infrastructure should reduce the cost of transporting goods to market, result in increased commercialization of agricultural and non-agricultural sectors, and increase sales revenue. Accordingly, it is hypothesized that, in the medium-term, NSP will improve both productivity and access to markets in the agricultural (H15) and non-agricultural sectors (H16), which in turn will produce increases in the proportion of villagers who hold positive perceptions of the local economy (H9); household income security (H10); average household consumption expenditure (H11); and average stocks of household assets (H12), and reductions in: borrowing for food and medical needs (H13); food insecurity (H14); and the net out-migration of both households (H17) and household members (H18) from the village. These hypotheses are presented in Figure 32.

<sup>63</sup> Data from MG respondents indicates that treatment villages received an average of \$10,067 (median is \$1,800) during the past three years in wages paid for project construction / implementation, which average \$58 (median: \$12) per household over the same three years. These compare to mean and median levels of annual household income at endline of \$2,027 and \$1,560, respectively.

Figure 32: Results Chain Exhibiting Hypothesized Medium-Term Impacts of NSP on Economic Welfare

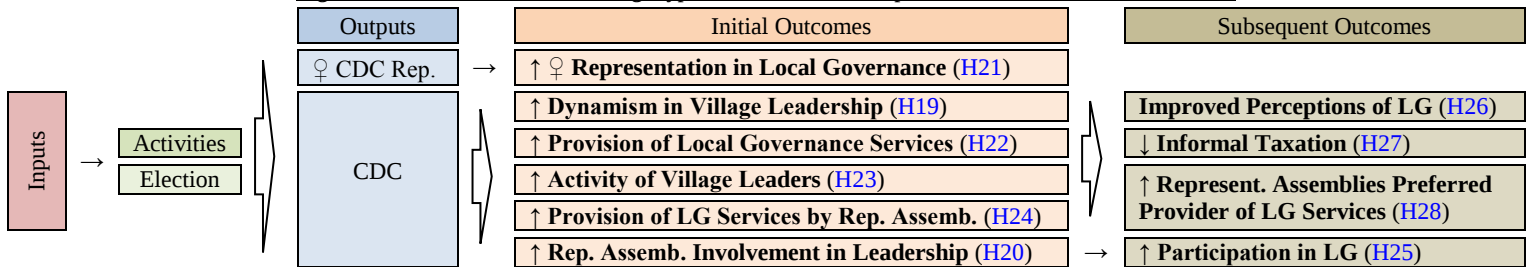


### VII.iii. Local Governance

A key objective of NSP is to build local governance structures centered on democratic processes and female participation. While customary local leaders are a ubiquitous feature of Afghanistan's political landscape,<sup>64</sup> the creation by NSP of gender-balanced CDCs through secret-ballot, universal suffrage elections represents a decisive change, both by mandating the participation of women in local decision-making and by affiliating existing and/or new local leaders with the new institution. Accordingly, the creation of CDCs is expected to induce an immediate change in the structure of local governance in Afghan villages by: introducing new individuals into the local leadership (*H19*); affiliating village leaders with representative assemblies (*H20*); and increasing female representation in local institutions (*H21*).

By imposing electoral accountability, the creation of CDCs is expected to induce local leaders to increase the provision of local public services, such as the mediation of disputes, notarization of important documents, and distribution of assistance. The effect should be present both in the aggregate level of services provided (*H22*) and in the volume of services provided individually by customary and representative local leaders (*H23*). In addition, as a by-law has assigned responsibilities previously under the domain of customary leaders to CDCs,<sup>65</sup> NSP is also expected to increase the involvement of representative assemblies, such as CDCs, in local governance services (*H24*).

Figure 33: Results Chain Exhibiting Hypothesized Indirect Impacts of NSP on Access to Services



As CDCs exist in parallel to customary authorities, NSP can positively impact local governance by empowering a more responsive cadre of local leaders or improving the behavior of existing leaders. While it is feasible that NSP may worsen local governance by inducing the return of malign local actors or weakening constraints on elite behavior through the diffusion of institutional responsibility across multiple local bodies (see Section III in Part III for further discussion),<sup>66</sup> it is hypothesized that the overall effect will be positive. In particular, NSP is expected to improve overall perceptions of the quality of local governance (*H26*) and reduce informal taxation by village leaders (*H27*). Through a positive demonstration effect, NSP is also expected to increase demands for the involvement of representative assemblies in the provision of local governance services (*H28*) and increase the participation of villagers in local governance activities (*H25*). Figure 33 summarizes the hypotheses pertaining to impacts on local governance.

<sup>64</sup> *De facto* local governance structures in rural Afghanistan generally consist of a hereditary headman, a *mullah* or other religious authority, and an informal council of tribal elders commonly known as a *shura* or *jirga*. In areas affected by conflict, government or insurgent-aligned paramilitary commanders can supplement or dominate customary authorities.

<sup>65</sup> The 2006 by-law assigns CDCs a variety of additional development and project-related functions, as well as the responsibility to record demographic statistics, functions that were previously undertaken by village headmen and/or other customary leaders.

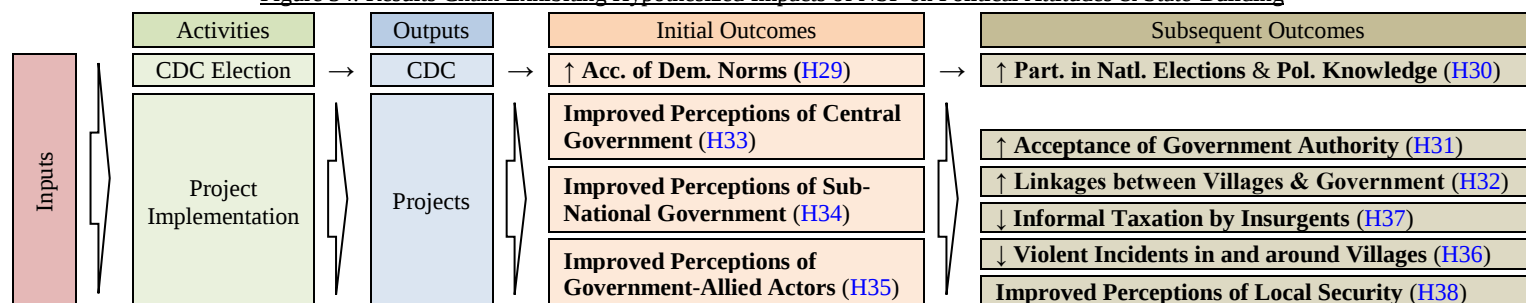
<sup>66</sup> For discussion of the constraints imposed by customary authorities in rural Afghanistan and how CDC creation may weaken these, see Brick (2008a). Persson, Roland, & Tabellini (1997) formalize how diffusion of institutional responsibility worsens governance outcomes.

## VII.iv. Political Attitudes & State-Building

Customary local leaders in rural Afghanistan ordinarily inherit their positions or are chosen by existing local elites. By mandating the selection of local leaders by secret-ballot universal suffrage election, NSP directly involves villagers in a historically unprecedented application of democratic procedures.<sup>67</sup> Assuming that the administration of CDC elections is conducted professionally and meets with the satisfaction of participating villagers,<sup>68</sup> NSP has the potential to increase knowledge and appreciation of the use of democratic or otherwise participatory processes in political decision-making and leader selection (H29). If successful in this respect, NSP may also indirectly increase participation in national elections and/or villagers' civic knowledge (H30).

Also historically unprecedented is the volume of resources provided by NSP block grants. Since the 1880s, violent or otherwise invidious state-building efforts have left a deep-rooted distrust in rural Afghanistan of the central government. In this historical context, NSP thus serves an implicit state-building function in seeking to establish the government as a benevolent provider of public goods. If positively received, NSP should thus improve perceptions of central (H33) and sub-national (H34) government, as well as government-allied actors such as ISAF forces and NGOs (H35). Greater support for the government may in turn increase acceptance of central government authority (H31) and an increased engagement between villages and government agents (H32). Such changes in the perceptions of government and acceptance of government authority may occur in the short-term as a direct response to the infusion of block grant resources or in the medium-term as NSP-funded projects become effective, improve development outcomes and thereby reduce discontent caused by a lack of access to basic utilities and infrastructure.

Figure 34: Results Chain Exhibiting Hypothesized Impacts of NSP on Political Attitudes & State-Building



If successful in improving perceptions of the government and/or government-allied agents, NSP may concomitantly reduce sympathies for insurgents that exploit popular dissatisfaction with government policies.<sup>69</sup> As, per counter-insurgency doctrine,<sup>70</sup> insurgents are ordinarily dependent on local populations for recruits, asymmetric intelligence,<sup>71</sup> and shelter, such reductions in popular support can cripple the capability of insurgents to mount attacks in the surrounding area. This should, in turn, reduce localized violence and improve perceptions of security. Accordingly, it is hypothesized that if NSP indeed improves perceptions of government, this should be accompanied by a reduction in expressions of insurgent support by the population, such as payments of informal taxation to insurgents (H37); by reduction in localized violence (H36); and improved perceptions of the local security situation (H38).<sup>72</sup> Figure 34 summarizes the hypotheses of how NSP impacts political attitudes and state-building.

## VII.v. Social Norms

A key aspect of NSP – as with CDD programs generally – is the use of inclusive, participatory practices (such as elections, consultation meetings, referenda, and community contributions) to propose, select, and implement projects. In bringing villagers together to make important decisions and work collaboratively to improve village infrastructure,

<sup>67</sup> Former Minister of Finance Ashraf Ghani writes that “[t]he intent of [NSP] was to address the process of democratization from the ground level up, in parallel to the process of constitution making and rule writing at the center” (Ghani & Lockhart [2008]), p. 206 – 208.

<sup>68</sup> Monitoring data from CDC elections in treatment villages, summarized in Section IV.i, indicates that is overwhelmingly the case.

<sup>69</sup> In rural Afghanistan, this includes the Taliban and paramilitary commanders and accompanying militias that opt to align either with the government or with insurgents and which regularly switch alliances.

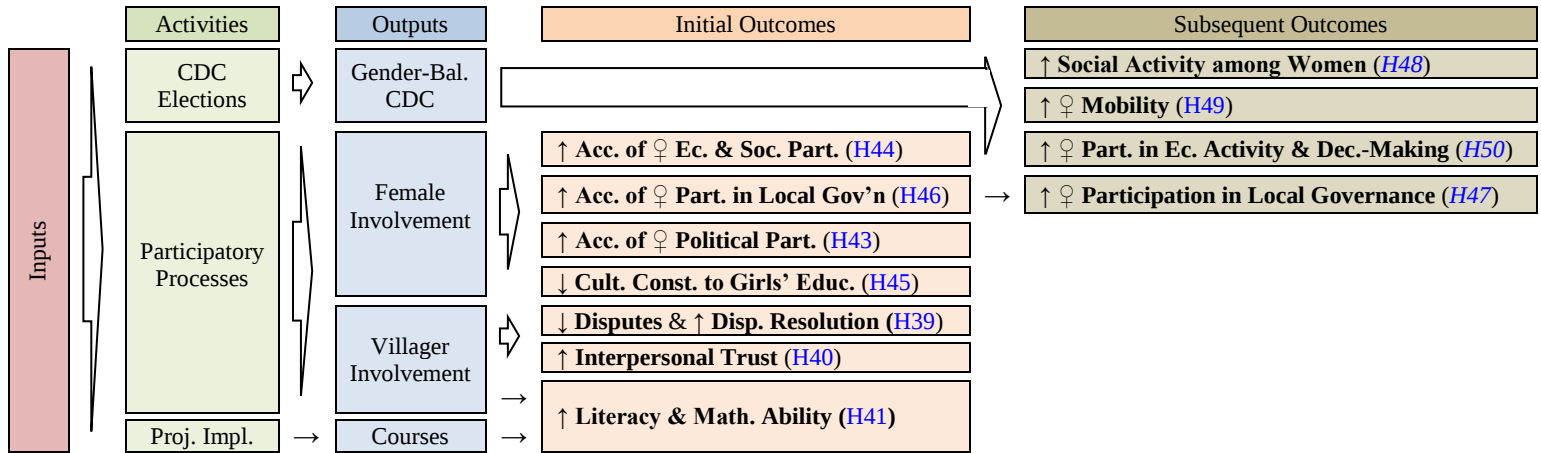
<sup>70</sup> See U.S. Army / Marine Corps (2006) and Berman, Shapiro & Felter (2011)

<sup>71</sup> That is, populations provide intelligence to insurgents on the movements of counter-insurgents (e.g., government forces), but do not provide intelligence to counter-insurgents on the movements of insurgents.

<sup>72</sup> A number of policy institutes and journalists have advanced this hypothesis. A 2009 policy brief by the Center for a New American Security recommended increased funding for NSP as a means to improve security, while a 2007 *Washington Monthly* article trumpeted NSP-funded projects as “the schools the Taliban won’t torch”.

NSP may improve social cohesion within villages, which should manifest itself in increased levels of interpersonal trust (H40), while reducing the overall number of disputes among villagers (H39).

Figure 35: Results Chain Exhibiting Hypothesized Impacts of NSP on Social Norms

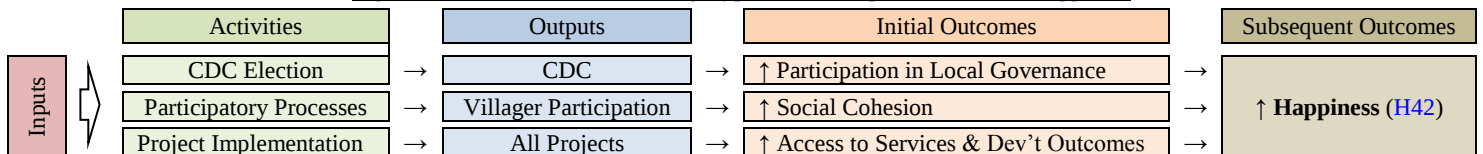


As noted in Section IV.iii, literacy and vocational training courses accounted for 16 percent of projects funded by NSP in treatment villages. If successful, literacy courses improve basic reading comprehension among women, to whom they are ordinarily targeted. Vocational training courses, which impart a wide range of skills, may also impact the ability of women to complete basic calculations. In addition to these direct impacts, the participatory nature of project implementation and management prescribed by NSP may indirectly improve (or ‘recall’) literacy and computational ability among both male and female villagers. Accordingly, NSP is hypothesized to improve literacy and mathematical ability (H41).

Given the cultural constraints that often preclude female involvement in local public affairs in rural Afghanistan, NSP makes provisions to ensure that women are not excluded from program processes. These include mandating female participation in CDC elections, reserving half of CDC positions for women, and requiring at least one project per village to be prioritized by women. Such provisions provide female villagers with an opportunity to exhibit their capabilities, while also demonstrating the unfounded nature of the pretexts used to justify exclusionary practices. As such and given complementary evidence in other contexts,<sup>73</sup> it is feasible that they may induce a general relaxation of attitudes to female participation in local governance (H46), political affairs (H43), and general economic and social activity (H44), while also easing objections to the education of girls (H45).

If successful in easing cultural constraints to female economic, educational, social and political participation and absent other prevailing constraints, this change in attitudes should be accompanied by changes in gender outcomes. Specifically, the relaxation of cultural constraints to female participation in local governance should be accompanied by increased involvement of women in local governance beyond the immediate remit of the CDC (H47). The provision by NSP of a venue for women to congregate and any according relaxation of cultural constraints to female movement should translate into increased social activity (H48) and mobility (H49) among women. Changes in attitudes towards gender roles in economic and social behavior more broadly may also be accompanied by increases in female participation in economic activity and decision-making (H50). Figure 35 summarizes hypotheses of how NSP impacts social norms.

Figure 36: Results Chain Exhibiting Hypothesized Impacts of NSP on Happiness



Finally, if NSP is successful at improving development outcomes and access to essential services, increasing participation in local governance, and building social cohesion, it is hypothesized that this may also result in an increased level of reported happiness of male and female villagers (H42). This hypothesis is presented in Figure 36.

<sup>73</sup> See Beaman et al. (2009) and Bhavnani (2009)

## VIII. Methodology<sup>74</sup>

A total of 198 indicators from **MH**, **MG**, **FH**, and **FG** questionnaires provide **endline** data used to test the effect of NSP on the 50 outcomes described in Section VII.<sup>75</sup> Estimates of NSP on these 198 indicators are estimated individually via ordinary least squares (OLS). In order to reduce the probability of **type I error** due to **multiplicity**, the aggregate effect of NSP for each of the 50 hypotheses is estimated as the average of the effects for the constituent indicators, with standard errors estimated using 50 systems of seemingly unrelated regressions. Estimates for the 20 groups and 5 families are estimated using the same approach, which further reduces the potential for type I error.

The following sections describe the methodology of the study in more detail: **VIII.i** describes the benchmark specification for estimation of treatment effects for each indicator; **VIII.ii** describes the specification for estimating effects of specific project types on relevant indicators; **VIII.iii** describes the specification for estimating effects on project preferences; **VIII.iv** details the aggregation of indicators and calculation of mean effects for each hypothesis; **VIII.v** describes robustness checks using data from the baseline survey; **VIII.vi** describes robustness checks for an alternative specification which interacts matched pair fixed effects and period dummies; and **VIII.vii** covers procedures for addressing cases of missing data, attrition of villages, and questions with limited variation.

### VIII.i. Estimation of Treatment Effect on Individual Indicators

For all indicators for which midline data exists, treatment effects are estimated at both midline (during project implementation) and endline (following project completion), which allows us to see how the effect of the program change over time. The following OLS regression is used to estimate the treatment effect for each indicator:

$$Y_{tvi} = \alpha + \beta_1 \cdot (T_v \times \tau_1) + \beta_2 \cdot (T_v \times \tau_2) + \gamma \cdot \tau_2 + \varphi_p + \varepsilon_{tvi} \quad (1)$$

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,  $\tau_t$  is the dummy for  $t$ ,  $\varphi_p$  is the matched pair fixed effect, and  $\varepsilon_{tvi}$  is the error term. Where an indicator is constructed at the village level (such as for indicators using outcomes constructed from MG or FG data) rather than the individual level, the outcome becomes  $Y_{tv}$  rather than  $Y_{tvi}$ .

Following [Bruhn & 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 at the village-cluster level to account for correlation of residuals within village-clusters due to non-independence of assignment of treatment status.<sup>76</sup>

If we write this equation separately for treatment and control groups at midline and endline, we have:

|                                                                                   |                 |         |
|-----------------------------------------------------------------------------------|-----------------|---------|
| $Y_{1vi}^{Control} = \alpha + \varphi_p + \varepsilon_{1vi}$                      | Control Group   | Midline |
| $Y_{1vi}^{Treatment} = \alpha + \beta_1 + \varphi_p + \varepsilon_{2vi}$          | Treatment Group | Midline |
| $Y_{2vi}^{Control} = \alpha + \gamma + \varphi_p + \varepsilon_{2vi}$             | Control Group   | Endline |
| $Y_{2vi}^{Treatment} = \alpha + \beta_2 + \gamma + \varphi_p + \varepsilon_{2vi}$ | Treatment Group | Endline |

Thus,  $\beta_1$  corresponds to the treatment effect at the midline,  $\beta_2$  corresponds to the treatment effect at the endline, and  $\gamma$  is the midline / endline time trend in the control villages. For a number of indicators (denoted in column f in [Table A1](#)), midline data is not available. For hypotheses for which midline data do not exist for at least one indicator, the specification simplifies to:

$$Y_{2vi} = \alpha + \beta \cdot T_v + \varphi_p + \varepsilon_{vi} \quad (2)$$

where  $\beta$  corresponds to the treatment effect at the endline.

<sup>74</sup> As noted above, in order to limit the risks of mining data and specifications, the methodology for the study was outlined in a pre-analysis plan (PAP) which describes all hypotheses, expected outcomes and exact indicators, outlines the appropriate econometric specifications, and references the use of mean effects. The PAP was archived using the EGAP design registration tool on February 20, 2012 before any data analysis had started. The plan with the time stamp is available at <http://e-gap.org/design-registration>. This section follows the methodology section (V) in the PAP ([Beath, Christia & Enikolopov \[2012b\]](#)), albeit with the introduction of the fixed effects interaction specification.

<sup>75</sup> For many, but not all, of these 198 endline indicators, data was also collected during the midline survey.

<sup>76</sup> See Section III for description of village-clusters

Specifications (1) and (2) provide the ‘basic specifications’ employed by the study. Robustness checks are performed with two alternate specifications, a ‘baseline augmented specification’ described in Section VIII.v and a ‘fixed effects interaction specification’ described in Section VIII.vi.

### VIII.ii. Estimation of Effect of Specific Types of Projects on Individual Indicators

For hypotheses pertaining to the effects of specific types of projects (hypotheses H1, H2, H6, and H7, detailed in Appendix I), estimation of treatment effects is supplemented by estimation of the effect of the corresponding project type. For such hypotheses, the average effect of NSP underestimates the effect of the specific project (e.g., drinking water), since not all treatment villages implemented the specific project in question and other types of projects are unlikely to affect the respective project-specific indicator (e.g., the availability of clean water). However, a simple comparison of control villages with treatment villages that have implemented the specific project would be misleading, since the villages that have chosen such projects are likely to be experience more problems in the respective area (e.g., availability of clean drinking water) compared to villages that have chosen other types of projects. In this situation, however, the effects of specific projects on respective project-specific indicators can be estimated using an instrumental variables approach.

Specifically, unbiased estimation of these effects requires accounting for the endogeneity of the selection process, which in turn requires comparing treatment villages with control villages that would have chosen the project of the same type if they had received NSP. Formally,  $C_{vt}^j$  is a dummy that indicates that a village  $v$  will implement the project of type  $j$  before period  $t$ , if given the opportunity to do so, with the corresponding outcome of interest indicated by  $Y_{vt}^j$ . We denote by  $Y_{0vt}^j$  and  $Y_{1vt}^j$  potential outcomes in a village  $v$  without and with treatment, respectively.  $C_{vt}^j$  is observable for treatment villages only, since only for these villages we observe whether they have actually implemented the project of type  $j$  by the time of a survey. That is, we observe  $C_{vg}^j$  for the sub-sample where  $T_v = 1$  and the realized value of  $Y$ :

$$Y_{vt}^j = \begin{cases} Y_{1vt}^j, & \text{if } T_v = 1 \text{ and } C_{vt}^j = 1; \\ Y_{0vt}^j, & \text{otherwise.} \end{cases}$$

We need to estimate the treatment-on-treated effect, which is:

$$\tau_{TOT}^{jt} = E[Y_{1vt}^j - Y_{0vt}^j | C_{vt}^j = 1]$$

It can be shown that this can be estimated using an IV regression with  $C_{it}^j$  as an endogenous variable and  $T_i$  as the instrument.<sup>77</sup> The identifying assumption is that NSP does not affect the respective outcomes of interest if the corresponding type of project is not implemented (e.g., NSP does not improve the quality of drinking water if a drinking water project is not implemented). With this assumption, the IV specification correctly identifies the average treatment effect on the treated (where “treated” refers to the village that have implemented a particular type of project, rather than individuals affected by the project). Thus, similar to the benchmark OLS specification, we use the following IV regression to estimate the effect of implementing a project type of type  $j$ :

$$Y_{vit}^j = \alpha + \tau_{IV}^j C_{vt}^j + \varphi_p + \varepsilon_{vi} \quad (3)$$

where  $C_v^j$  is instrumented by  $T_v$ . As in the basic specification (1), standard errors are clustered by village-cluster. We estimate the IV regression for midline and endline surveys separately.

### VIII.iii. Estimation of Treatment Effect on Satisfaction of Ex-Ante Project Preferences

The hypothesis that NSP satisfies the *ex-ante* project preferences of male villagers (H8) presumes that, when asked which project is most needed by the village, respondents in treatment villages are more likely to specify a different project in the midline and/or endline surveys than the project they specified in the baseline survey. This is predicated on the assumption that, in treatment villages, the development needs which underscored the demand for a particular project at the time of the baseline survey are more likely to have been addressed by the provision of NSP-funded projects, making other development needs relatively more important.

To test this hypothesis, we estimate the following conditional fixed effects logit model:

<sup>77</sup> The proof appears in Appendix A in Beath, Christia & Enikolopov (2012b)

$$\begin{aligned}
& Pr(Pref_{tpi}|Pref_{0pi}, \alpha_p, \beta_t) \\
& = \Lambda(\alpha_p + Pref_{0pi} \times (T_v \times \tau_1) \times \beta_{1g} + Pref_{0pi} \times (T_v \times \tau_2) \times \beta_{2g} \\
& + Pref_{0pi} \times \tau_1 \times \gamma_{1g} + Pref_{0pi} \times \tau_2 \times \gamma_{2g})
\end{aligned} \tag{4}$$

where  $Pref_{tpv}$  is a dummy variable indicating whether project of type  $p$  is the most preferred project during the midline or endline, where  $t \in \{1,2\}$ , 1 denoting the midline and 2 denoting the endline;  $Pref_{0pi}$  is a dummy variable indicating whether project of type  $p$  was the most preferred by respondent  $i$  during the baseline survey;  $T_v$  is the village treatment dummy,  $\tau_t$  is the dummy for midline or endline  $t$ . Standard errors are clustered by village-cluster.

$\beta_{1g}$  corresponds to the midline effect on stability of preferences and the coefficient  $\beta_{2g}$  corresponds to the endline effect. We test the hypothesis that  $\beta_1 > 0$  and  $\beta_2 > 0$ , which means that the preferences are more likely to change in treatment villages, both at midline and endline.<sup>78</sup>

#### VIII.iv. Estimation of Aggregate Treatment Effects (Hypothesis Testing)

With eight exceptions (hypotheses H2, H3, H8, H17, H18, H21, H27, H37, detailed in [Appendix I](#)), hypotheses are tested using multiple indicators. To provide a single measure for each of the hypotheses and to account for the general problem of multiple hypothesis testing, individual hypotheses are tested by estimating the overall average treatment effect on all the indicators pertaining to that hypothesis. The overall average treatment effect is estimated by combining the effects on each of the constituent indicators using the approach in [Kling & Liebman \(2004\)](#).<sup>79</sup>

This approach produces a single treatment effect that summarizes the effects for all constituent indicators that correspond to the same hypothesis. In order to standardize indicators measured in different units, the indicators are converted into  $z$ -scores that have zero mean and unit variance. After that, the mean effect is computed for each hypothesis as the average of treatment effects for the constituent indicators.

Formally, first, all the  $K$  indicators pertaining to a specific hypothesis are standardized by subtracting the mean and dividing by the standard error of the control group. If we denote by  $\mathbf{Y}_k$  the vector of observations related to outcome  $k$  and by  $Y_k^i$  its elements, then:

$$\tilde{\mathbf{Y}}_k = \frac{\mathbf{Y}_k - \frac{1}{n} \sum_i Y_k^i}{Var(Y_k^i | T_v = 0)} \tag{5}$$

Next, all regressions are estimated using these standardized indicators to obtain  $K$  standardized treatment effects  $\tilde{\tau}_k$ , where the regression equation is the same as (1), which in vector form, can be written as:

$$\tilde{\mathbf{Y}}_k = \mathbf{X}\boldsymbol{\beta} + \mathbf{T}\tilde{\tau}_k + \boldsymbol{\varepsilon}_k = \mathbf{W}\boldsymbol{\theta}_k + \boldsymbol{\varepsilon}_k \tag{6}$$

The overall coefficient for the hypothesis is the mean of these standardized treatment effects:

$$\tilde{\tau} = \frac{1}{K} \sum_{k=1}^K \tilde{\tau}_k \tag{7}$$

The standard error for the overall coefficient is estimated by running a system of seemingly unrelated regressions for the  $K$  outcomes and then testing the cross-equation hypothesis that the average of  $K$  coefficients equals zero. That is, we estimate the system:

$$\tilde{\mathbf{Y}} = (\mathbf{I}_K \otimes \mathbf{W})\boldsymbol{\theta} + \mathbf{E} \tag{8}$$

where  $\tilde{\mathbf{Y}} = (\tilde{\mathbf{Y}}'_1, \tilde{\mathbf{Y}}'_2, \dots, \tilde{\mathbf{Y}}'_K)'$ ,  $\mathbf{I}_K$  is a  $K$ -dimensional identity matrix,  $\mathbf{W}$  is vector of independent variables (same for all outcomes) and  $\boldsymbol{\theta}$  is a vector of coefficients which includes  $\tilde{\tau}_k$ .

From this estimation, using the elements of the variance-covariance matrix that relate to  $\tilde{\tau}_k$  elements of  $\boldsymbol{\theta}$ , we estimate standard errors for the overall coefficient for the hypothesis as:

<sup>78</sup> It is not clear whether short-run effect should be smaller. In NSP villages they may change their preferences immediately which will lead to a large effect in the short-run. But in the long-run, preferences in control villages will also change, so that the difference may decrease.

<sup>79</sup> This approach is also followed in [Casey, Glennerster, and Miguel \(2011b\)](#)

$$Var(\bar{\tau}) = Var\left(\frac{1}{K} \sum_{k=1}^K \tilde{\tau}_k\right) = \frac{1}{K^2} \sum_{l=1}^K \sum_{k=1}^K Cov(\tilde{\tau}_l, \tilde{\tau}_k) \quad (9)$$

To provide an explication of the approach, consider a simple example in which there are two indicators,  $Y_1$  and  $Y_2$ , related to a particular hypothesis. To construct the aggregate treatment effect for these two indicators, we first convert both indicators to  $\tilde{z}$ -scores by subtracting means and dividing by the standard deviation for each variable. This transformation produces two new variables,  $\tilde{Y}_1$  and  $\tilde{Y}_2$ , each of which has zero mean and a variance of one. Next, we estimate Equation (1) for both of these variables as a system of two seemingly unrelated regressions and obtain estimates,  $\beta_1^1$  and  $\beta_1^2$ , of the treatment effects at midline for the two new variables ( $\tilde{Y}_1$  and  $\tilde{Y}_2$ ) and endline estimate,  $\beta_2^1$  and  $\beta_2^2$ . The aggregate treatment effect at midline is a simple average of  $\beta_1^1$  and  $\beta_1^2$  and the aggregate endline effect is the average of  $\beta_2^1$  and  $\beta_2^2$ . Statistical significance of the two average effects is estimated by testing hypotheses  $\beta_1^1 + \beta_1^2 = 0$  and  $\beta_2^1 + \beta_2^2 = 0$ .

Computing aggregate treatment effects allows us to summarize results of estimates on individual indicators and to account for the general problem of multiplicity in hypothesis testing. However, this approach has its limitations. First, it assumes that all constituent indicators are equally weighted and accordingly considers that all constituent indicators are equally important. Second, a hypothesis may be accepted even though only one of the constituent indicators is strongly affected. For both of these reasons, it is important to consider not only the aggregate treatment effects, but the effects for the individual indicators as well.

#### VIII.v. Robustness to Controlling for Baseline Characteristics

Although the matched pair randomization and large sample size ensure that the treatment and control villages are generally well balanced, there is a chance that the effect for some indicators may be driven by initial differences between control and treatment villages. To explore the robustness of hypotheses tests to random variation in pre-treatment characteristics and for indicators for which the respective data is available, [baseline survey](#) data is added as an additional control variable to the basic specification:

$$Y_{tvi} = \alpha + \beta_1 \cdot (T_v \times \tau_1) + \beta_2 \cdot (T_v \times \tau_2) + \gamma Y_{0vi} + \varphi_p + \tau_2 + \varepsilon_{tvi} \quad (10)$$

where  $Y_{0vi}$  is the corresponding indicator from the baseline survey. The procedure represents Analysis of Covariance (ANCOVA) estimation. This specification accounts for random variation between treatment and control groups in a more flexible way than the difference-in-difference estimator, which assumes that  $\gamma = 1$ . In addition, [McKenzie \[2012\]](#) shows that it has better power properties than the difference-in-difference estimator, especially when autocorrelation for the outcomes of interest is low.

In some cases, although a particular indicator is not available at baseline, there is a closely related indicator either at the individual or at the village level. In these cases, we use these indicators  $\tilde{Y}_{0vi}$  (or  $\tilde{Y}_{0i}$ ) as controls instead of  $Y_{0vi}$ .

The full set of estimates provided by this ‘baseline augmented specification’ and comparisons to estimates produced by the basic specification are provided in [Appendix II](#) for indicators and [Appendix III](#) for hypotheses, groups, and families. Where baseline augmented specification estimates substantively differ from those produced by the basic specification, a notation is made in the bottom row of the respective table in Part II and in a footnote to the relevant sentence in the main text.

#### VIII.vi. Robustness to Interaction of Matched Pair Fixed Effects and Survey Period<sup>80</sup>

The [basic specification](#) includes, as additive terms, matched pair fixed effects and, where midline data exists, a dummy variable for endline survey data which provides a coefficient for the midline / endline time trend in the control group. An alternative to this specification interacts matched pair fixed effects with period dummies for both midline and endline:

$$Y_{tvi} = \alpha + \beta_1 \cdot (T_v \times \tau_1) + \beta_2 \cdot (T_v \times \tau_2) + \gamma \cdot \tau_2 + \varphi_p \cdot \tau_1 + \varphi_p \cdot \tau_2 + \varepsilon_{tvi} \quad (11)$$

This specification allows the trends within each pair to differ and increases statistical power, but does not permit estimation of the midline / endline time trends provided by the basic specification. To ensure that results are robust

<sup>80</sup> The inclusion of this section represents a deviation from the PAP undertaken at the suggestion of one of the authors.

to alternate assumptions of functional form, we employ this ‘fixed effects interaction specification’ as a robustness check.

As with the baseline augmented specification, we test the robustness of effects for all indicators, hypotheses, groups, and families to the interaction of matched pair fixed effects and period dummies. [Appendix IV](#) provides the respective fixed effects interaction specification estimates and comparison to basic specification estimates for all indicators, while [Appendix V](#) provides estimates and comparisons for hypotheses, groups, and families. Cases whereby fixed effects interaction specification results differ from basic specification results are noted in a footnote to or parentheses for the respective sentence in the text and in the bottom row of the respective table.

#### *VIII.vii. Procedures for Addressing Missing Data and Questions with Limited Variation*

No imputation of missing data will be performed, although checks are conducted to explore correlation between treatment status and incidents of missing data and between treatment status and the numbers of FG, FH, MG and MH respondents interviewed in each village.

In cases whereby one of the two matched-paired villages is not sampled, the counter-part matched pair of the village will be excluded from the analysis in order to preserve the internal validity of the experiment.

The pre-analysis plans committed to testing the power of all indicators using the control sample and excluding all indicators that do not attain at least 80 percent power. All indicators were found to have at least 80 percent power.

### **IX. Accuracy and Integrity of Estimates**

As outlined in Section [VIII](#), sample villages were assigned to treatment by matched-pair cluster randomization. This ensures that the methodology outlined in Section [VII](#) provides unbiased estimates of NSP impacts. However, practical aspects concerning the implementation of treatment assignments and data collection may nevertheless introduce bias or imprecision. The following sections note potential sources of such errors and, if applicable, discusses background information necessary to assess their potential effects on the results and/or details measures implemented to mitigate their effects: [IX.i](#) discusses assignment compliance; [IX.ii](#) discusses idiosyncratic imbalance; [IX.iii](#) discusses attrition; [IX.iv](#) discusses contamination; [IX.v](#) discusses spillovers; [IX.vi](#) discusses temporal uncertainty; [IX.vii](#) discusses enumerator imprecision; [IX.viii](#) discusses respondent error; and [IX.ix](#) discusses publication bias.

#### *IX.i. Compliance*

In the event of widespread non-compliance with treatment assignments, obtaining unbiased estimates is difficult. Available information, however, indicates that non-compliance with the NSP-IE assignments has been limited, with just five control villages receiving NSP and eight treatment villages not receiving NSP.<sup>81</sup> Most of these cases appear to have arisen due to inadvertent language errors pertaining to village names.

Estimates are derived using an intention-to-treat approach, which employs the assigned (rather than actual) treatment status. This standard approach reserves the randomized nature of treatment, but may result in under-estimates of program impact in the event of widespread cases of non-compliance. Given the limited number of cases of non-compliance in the study, however, this has minimal effect on the analysis

#### *IX.ii. Idiosyncratic Imbalance*

Matched-pair cluster randomization ensures the balance of treatment and control groups in expectation. However, there is a non-zero probability that a particular outcome of randomization will result in treatment and control groups differing with respect to some underlying characteristics. To identify any such differences, we compare treatment and control villages at baseline with respect to important characteristics. The results indicate that the two groups of villages are well balanced, with no significant differences in underlying characteristics.<sup>82</sup> We also test the robustness of indicators, where possible, to any pre-treatment differences by controlling for the counterpart indicator at baseline or, if unavailable, a closely related indicator (see Section [VIII.v](#)).

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<sup>81</sup> We used a variety of checks to verify compliance with treatment assignments, including reports from monitors, FPs working in sample districts, and analysis of midline and endline data.

<sup>82</sup> See Section IV of [Beath et al. \(2010\)](#)

### IX.iii. Attrition

The matched-pair randomization design negates the possibility of selection bias if instances of attrition are related to set of variables included in the pair-matching algorithm. However, selection bias may be present if attrition occurs for reasons both unrelated to the variables included in the pair-matching algorithm and related to the treatment assignment, or by selecting on the treatment effect. As noted in Section VI.iii, village- and household-level attrition between the baseline and endline was substantial, with village-level attrition caused primarily by security concerns and household-level attrition caused primarily by transitory movements of villagers.

Table 5 reports attrition at the village level between the baseline and endline. MHs could not be administered in 9.6 percent of control villages and 12.8 percent of treatment villages at endline; FHs could not be administered in 19.2 percent of control villages and 23.6 percent of treatment villages; MGs could not be administered in 15.6 percent of treatment villages and 19.2 percent of control villages; and FGs could not be administered in 22.8 percent of control villages and 28.4 of treatment villages. The differences are not statistically significant.

Table 6 reports the proportion of endline respondents and households that were surveyed at baseline and/or midline and presents results of tests for the statistical significance of differences between treatment and control groups. Differences at both the respondent- and household-level from baseline to endline are statistically significant, but only if we do not cluster standard errors at the village-cluster level and do not exclude villages for which the counterpart matched-pair village was not surveyed. The differences become statistically insignificant if villages missing their matched-pair village are dropped or if standard errors are clustered. As estimates of treatment effects incorporate both of these corrections, the results should not be biased by attrition.

**Table 5: Village-Level Attrition from Baseline to Endline**

|           | Male Household | Female Household | Male Focus Group | Female Focus Group |
|-----------|----------------|------------------|------------------|--------------------|
| Control   | 24 / 250       | 48 / 250         | 39 / 250         | 57 / 250           |
| Treatment | 32 / 250       | 59 / 250         | 48 / 250         | 71 / 250           |
| Total     | 56 / 500       | 107 / 500        | 87 / 500         | 128 / 500          |

**Table 6: Respondent- and Household-Level Continuity from Baseline to Endline**

|                             | Raw Difference (Only) |         |        | Raw Difference (Matched Pairs Only) |         |        |
|-----------------------------|-----------------------|---------|--------|-------------------------------------|---------|--------|
|                             | Treatment             | Control | S.S.L. | Treatment                           | Control | S.S.L. |
| Same Respondent as Midline  | 66.4%                 | 65.2%   |        | 65.9%                               | 66.2%   |        |
| Same Household as Midline   | 74.5%                 | 73.8%   |        | 74.6%                               | 74.8%   |        |
| Same Respondent as Baseline | 45.6%                 | 42.7%   | *      | 43.4%                               | 45.1%   |        |
| Same Household as Baseline  | 55.4%                 | 52.4%   | **     | 53.1%                               | 55.4%   |        |

Note: "S.S.L." columns denotes level of statistical significance of difference between treatment and control groups, with blank denoting no statistically significant differences between treatment and control groups, "\*" denoting a difference statistically significant at the 10 percent level, and "\*\*" denoting a difference significant at the 10 percent level.

### IX.iv. Contamination

Estimates may be either amplified or diminished by the presence of non-NSP projects across the sample. If FPs implementing NSP 'bundle' other projects with NSP or if NSP 'attracts' non-NSP projects, estimates will be amplified. If, however, non-NSP projects were systematically targeted to control villages (to 'equalize' interventions, for example), this would diminish the estimates.

**Table 7: Villages with NSP and Non-NSP Projects Implemented in Past 3 Years, by Type, as Reported at Endline by Male Focus Groups**

|           | Road |     | Water & Sanitation |     | Comm. Building |     | Electricity |     | Irrigation |     | Clinic |     | School |     | Women's Inc. Gen. |     | Literacy & Voc. Train. |     | Other |     |
|-----------|------|-----|--------------------|-----|----------------|-----|-------------|-----|------------|-----|--------|-----|--------|-----|-------------------|-----|------------------------|-----|-------|-----|
|           | Non  | NSP | Non                | NSP | Non            | NSP | Non         | NSP | Non        | NSP | Non    | NSP | Non    | NSP | Non               | NSP | Non                    | NSP | Non   | NSP |
| Control   | 23   | 8   | 36                 | 4   | 0              | 0   | 16          | 3   | 13         | 5   | 1      | 0   | 12     | 0   | 3                 | 2   | 22                     | 0   | 5     | 0   |
| Treatment | 21   | 51  | 23                 | 73  | 2              | 12  | 6           | 35  | 9          | 61  | 0      | 0   | 8      | 0   | 3                 | 20  | 27                     | 7   | 2     | 3   |

Note: "Non" refers to projects funded by sources other than NSP. "NSP" refers to NSP-funded projects. "Comm. Building" refers to community building; "Women's Inc. Gen." refers to women's income generating activities; and "Literacy or Voc. Training" refers to literacy and/or vocational training courses. "Other" includes projects on bee-keeping, cash-for-work; house construction; and mill construction.

Data from MGs at endline indicates that 24 percent of treatment villages and 31 percent of control villages received a non-NSP project in the past three years. The difference is statistically significant at the 90 percent level, but does not

appear to indicate systematic targeting of control villages by non-NSP programs. As reported in Table 7,<sup>83</sup> non-NSP projects that are relatively more numerous in control as compared to treatment villages include electricity projects and water and sanitation projects. Non-NSP roads projects and literacy and vocational training projects, while numerous, are implemented relatively equally in both control and treatment groups.

Figure 37 presents aggregated funding information for all projects and further demonstrates that although non-NSP projects are slightly more numerous in control areas, assignment to treatment creates an overwhelming difference in development activity.<sup>84</sup> Analysis of MG data indicates that, during the past three years, treatment villages received an average of \$10,067 in direct wages paid for work on implementing projects, while control villagers received only \$1,398 on average.<sup>85</sup>

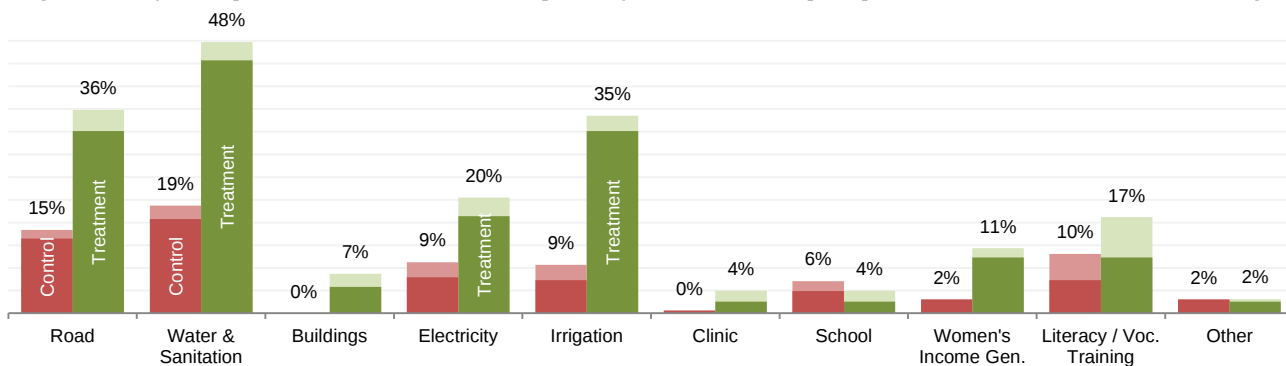
**Figure 37: Funder(s) of Project as Reported by Male Focus Group Respondents in Control and Treatment Groups**



*Note:* Numbers indicate total number of projects funded by entity. Projects may have more than one funding entity. “Other” includes ISAF, UN (including WFP), village leaders, or villagers. “Government” includes all government programs other than NSP.

Information on the frequency by which control and treatment villages received projects in the past three years and whether projects were complete at endline is presented in Figure 38. For all project types except schools and other, MGs in treatment villages were more likely to report receiving a project in the past three years. Differences between control and treatment groups in implementation of road, water and sanitation, electricity, and irrigation projects are particularly substantial.

**Figure 38: Projects Implemented in Past 3 Years as Reported by Male Focus Group Respondents in Control and Treatment Villages**



*Note:* Red columns represent proportion of male focus groups in control villages which report that the respective type of project has been implemented in the village within the past three years, with green columns representing the corresponding proportion for female focus groups. Dark columns represent completed projects and light columns represent projects under implementation. Numerical labels refer to the total number of complete and incomplete projects.

The available data thus indicates that there is a possibility that the effects of NSP may be under-estimated due to imbalances in non-NSP projects, but that these differences will likely be small and confined to spheres affected only by water and sanitation and electricity projects. As the impact of these types are separately estimated using an IV procedure (see Section VIII.ii), any such contamination is not expected to affect the conclusions of the study on the effectiveness of specific project types. Given the substantial differences in wages paid to villagers through project implementation and the limited differences in non-NSP infrastructure projects, the probability of the study underestimating overall economic impacts also appears small.

<sup>83</sup> Cases in which control villages report receiving NSP projects may represent instances of non-compliance, spillovers from control to treatment groups, and/or cases in which male focus group participants were mistaken about the entity funding the project.

<sup>84</sup> Cases in which projects had more than one funding agency are counted as a single observation.

<sup>85</sup> The respective medians are \$1,800 and \$0.

## IX.v. Spillovers

Development interventions occur in fluid economic, institutional, and social systems and effects of such interventions may induce responses in neighboring areas.<sup>86</sup> In the presence of such ‘spillovers’ (that is, unconfined geographic distribution of impact), the stable unit treatment value assumption is violated and estimates will be biased in accordance with the nature of the spillover.

There are no general tests for the intensity or nature of spillovers. However, spillovers should generally be decreasing in the geographic spacing between control and treatment units, which provides a means by which their effects can be mitigated. This comes at a cost, however: clustering co-assigned units to increase inter-group geographic dispersion reduces effective sample size and limits the extent to which the law of large numbers can be invoked to assure pre-treatment balance.

In the NSP-IE, villages located within one kilometer were clustered and assigned a common treatment status. Of the 500 sample villages, 107 were assigned to 41 clusters,<sup>87</sup> which were either all assigned to the treatment group or all to the control group.<sup>88</sup> While this approach does not completely eliminate the potential for spillovers to affect estimates, it does limit the potential for such, while not overly affecting the effective sample size.

## IX.vi. Uncertainty over Temporal Distribution of Impact

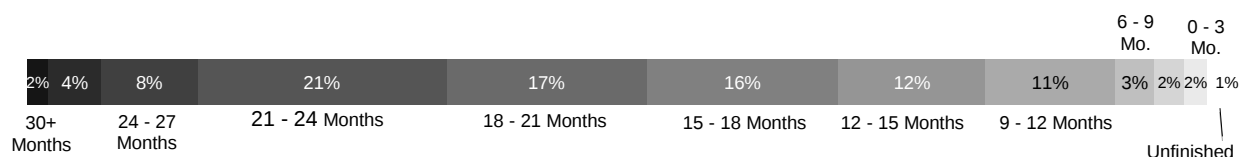
There is large variation across development interventions in the distribution of impacts over time. For the NSP-IE, midline and endline surveys were planned to capture both short-term effects of creating CDCs and disbursing funding and longer-term effects of the full program, including the completion of projects.

**Figure 39: Elapsed Time from CDC Election to Start of Endline Survey, by Village**



The midline survey coincided with project implementation and captures economic and/or political ‘stimulus’ effects arising from the infusion of project funding and changes in the structure, function, and/or reception of village leadership or villager attitudes arising from CDC creation. At midline, all treatment villages had elected CDCs and 97 percent of such villages had elected CDCs at least 12 months prior. Across treatment villages, 91 percent of NSP-funded projects had begun implementation, with 40 percent of projects under implementation for 6 months or more.

**Figure 40: Elapsed Time from Project Completion to Start of Endline Survey, by Project**



The endline survey captures the sustainability of effects observed in the midline survey, as well as impacts of completed projects on economic and development outcomes. At the time of the endline survey, at least 2.5 years had elapsed following CDC elections, with 97 percent of treatment villages electing more than CDCs 3 years prior. 52

<sup>86</sup> The implementation of NSP in treatment villages may, for example, may improve access to services in control villages if villagers are able to access infrastructure created in or near treatment villages. Alternatively, control villages may develop antagonistic attitudes to the government as a result of their non-selection for the program.

<sup>87</sup> The number of villages in each cluster was ranging from 2 to 6. All of the districts had at least one cluster of villages, with the largest number of clusters being 10 in Khost Wa Firing district in Baghlan province and 8 in Sherzad district in Nangarhar. Maps of clustered and un-clustered villages in each of the 10 sample districts are presented in Appendix VI of in [Beath, Christia & Enikolopov \(2008\)](#).

<sup>88</sup> This was achieved by executing an algorithm which, after a village had been assigned a treatment status, assigned all other villages in the same cluster the same treatment status. The other villages in the respective matched-pairs were assigned the opposite treatment status. In a few districts, the number of clustered villages and pattern of matching precluded the co-assignment of clustered villages. For these districts, the number of violations was minimized through simulation. Specifically, the procedures described in the preceding steps were repeated ten times for each such district and the assignment that minimized the variation of status within clustered villages was selected.

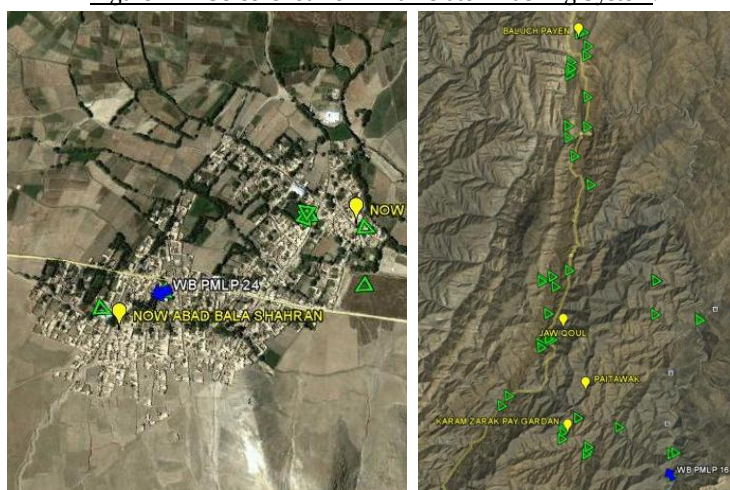
percent of NSP-funded projects were completed at 18 months prior to the endline survey, with 82 percent of projects completed at least 12 months prior. Only 1 percent of projects had not been completed by the time of the endline.

#### IX.vii. Enumerator Error

Enumerators generally face incentives to decrease the time of survey administration. This can result in idiosyncratic errors in data collection; manipulation of ‘skip patterns’ to reduce interview duration; and even fabrication of data. Data entry staff experience similar incentives, which results in inaccuracies. Such errors reduce the precision of estimates. In order to minimize errors in data collection and entry, the following measures were implemented:

- An intensive training and selection program was designed for enumerators for the endline survey, consisting of a two-week training session for a pool of candidate enumerators drawn from individuals who had participated in baseline and/or midline surveys or similar quantitative surveys, daily testing of enumerator candidates, and a selection of enumerators based on both a final exam and field test;
- Field monitoring of endline survey enumerators was conducted by VAU staff and monitors provided regular reports by cell phone to an assistant of the evaluation team;
- One male enumerator in each team was provided with a *Track24* GPS tracking unit, which reported its location in real-time. The evaluation team assigned an assistant to verify the movements of the team every day and to contact the team leader in the event of any unscheduled or otherwise unexpected movements;
- Each team was also required to call an assistant of the evaluation team every day and provide detailed information on survey activities, including GPS coordinates of the village center;
- To limit errors in data entry, a double-entry system was implemented, with all discrepancies reconciled by checking questionnaires. Following reconciliation, the final data set was checked again against questionnaires.

Figure 41 – Screenshot from Enumerator Tracking System.



Note: Images are provided by Track24. Green triangles represent position reports sent every 10 minutes

#### IX.viii. Respondent Error

Inaccuracy in response is anticipated in survey data collection. Such inaccuracy reduces the precision of estimates, but does not generally bias the results. However, in some cases, respondents may be inclined or induced to respond differently in treatment and control groups not because of treatment effects, but because of their assignment status. One such case arises from [Clever Hans Effects](#), whereby enumerators or other experimenters induce desired responses in subjects. Similar biases may arise if respondents in treatment villages are more inclined to offer favorable (but false) responses, either because the program accustoms villagers to the attitudes of outsiders because of ‘priming’ by program staff or because villagers wish to project a favorable view of impact in order to secure further resources.

The following efforts were made to limit the potential for respondent-induced bias:

- Enumerators were not informed of either the treatment status of each village or the purpose of the study;<sup>89</sup>
- Respondents were not informed of the purpose of the survey, but rather told that it sought to collect general socio-economic data on village conditions. Respondents were also explicitly informed that their responses would not determine whether or not their household or village received further assistance or projects;
- FPs implementing NSP in sample districts were not informed of the timing of the survey or shown questionnaires in order to limit the potential for priming of villagers prior to the survey;
- Questions which would have directly informed the enumerators of the village’s treatment status and cued the enumerator and respondent to the survey’s purpose were excluded;<sup>90</sup>

<sup>89</sup> During the training, enumerators were rather informed that the study was designed to provide longitudinal data on economic and social conditions in rural Afghanistan, rather than to collect data for the NSP-IE. To the best knowledge of the evaluation team, no information was provided to enumerators, supervisors, or to VAU on the treatment assignments.

- In order to obtain measures of the impacts on local governance quality based on actual outcomes, the VBDA (see Section VI.iv) was implemented following the completion of the endline survey.

#### IX.ix. Publication Bias

In addition to statistical bias, the potential exists for social scientific findings to be biased by the conscious or unconscious behavior of researchers, research principals, referees and reviewers, and others engaged in the process of transmitting raw data into research publications. Specifically, indicators may be selected, specifications or coding decisions may be modified, and/or hypotheses adjusted so as to alter the findings of a study to increase (or decrease) conformance of empirical results with pre-existing notions, theoretical predictions, expectations and/or preferences of research agents and/or principals. This concern is particularly pertinent for impact evaluations which may have direct or indirect implications for the funding of specific programs.

To limit the potential for publication bias or other pressures to impinge upon the selection and/or manipulation of hypotheses and indicators included in this report, a [pre-analysis plan \(PAP\)](#) was prepared, publicly disseminated, and [registered](#) with the Experiments in Governance and Politics (EGAP) network prior to the receipt of endline data.<sup>91</sup> In addition to listing all of hypotheses tested below, the PAP detailed all indicators incorporated into hypotheses tests,<sup>92</sup> relevant specifications applied to aggregate indicators and test hypotheses, and robustness checks. The analysis presented below adheres exactly to the PAP, which provides an assurance that the hypotheses and their constituent indicators have not been selected or otherwise manipulated following the receipt of data.

Figure 42: Village Elder in Daulina



Figure 43: Male Household Interview in Herat Province



Figure 44: Male Household Interview in Herat Province



<sup>90</sup> There were no questions that mentioned NSP directly, asked whether the village had received NSP, or collected information directly pertinent to NSP implementation. While certain questions (such as those pertaining to the village council and projects) allowed the enumerator to discern treatment status, these questions followed those posed by standard socio-economic surveys.

<sup>91</sup> The plan with the time stamp is available at <http://e-gap.org/design-registration>

<sup>92</sup> This includes the questionnaire and question number from which the indicator is sourced, plus details of how raw data will be coded or otherwise manipulated to form the respective indicator. Recent papers that explicitly use PAPs include [Alatas et al. \(2012\)](#), [Casey, Glennerster & Miguel \(2011b\)](#), [Finkelstein et al. \(2012\)](#), [Humphreys, Sanchez de la Sierra, van der Windt \(2012\)](#), [Olken, Onishi & Wong \(2012\)](#), and [Cohen, Dupas & Schaner \(2012\)](#).



## Part III – Results

## Introduction

The following sections present estimates of midline and endline impacts of NSP on indicators, hypotheses, and groups across the five families of indicators: access to utilities, services, and infrastructure (I); economic welfare (II); local governance (III); political attitudes and state-building (IV); and social norms (V).

Table 8: Families and Groups of Indicators

| Access to Utilities etc. | Economic Welfare   | Local Governance      | Political Attitudes etc. | Social Norms     |
|--------------------------|--------------------|-----------------------|--------------------------|------------------|
| Utilities                | Perceptions        | Structure             | Democratic Values        | Social Cohesion  |
| Services                 | Stocks & Flows     | Function              | State Legitimacy         | Literacy & Math  |
| Infrastructure           | Prod'n & Marketing | Quality & Particip.   | Perceptions of Gov't     | Happiness        |
| Project Preferences      | Migration          | Village Benefit Dist. | Conflict                 | Gender Attitudes |
|                          |                    |                       |                          | Gender Outcomes  |

As described in Section VIII.v of Part II, the baseline augmented specification is used to test the robustness of indicator, hypothesis, group, and family results to pre-treatment variation. Robustness checks for indicators are presented in Appendix II, with Appendix III reporting robustness checks for hypotheses, groups, and families. As described in Section VIII.vi of Part II, the robustness of results to changes in functional form are also tested via the fixed effects interaction specification. Appendix IV presents the respective results for individual indicators, with Appendix V presenting results for hypotheses, groups, and families.

In cases whereby the use of baseline augmented and/or fixed effects interaction specifications render an otherwise statistically significant result insignificant or an otherwise insignificant result significant, the change is noted both in the text and in a note below the respective table.<sup>93</sup> In cases whereby a result loses or gains at least one level of statistical significance (e.g., from 5 percent to 10 percent) but retains statistical significance, the change is noted below the table and footnoted. No notations are made in cases whereby the use of the two alternate specifications does not alter the level of statistical significance or produces changes of statistical significance between 1 and 5 percent only.

For the baseline augmented specification and across the 198 indicators, there are nine cases in which an endline indicator and six cases in which a midline indicator loses one level of significance; one case in which a midline indicator loses two levels of significance; and one case in which an endline indicator loses three levels of significance. There are also three cases in which an endline indicator and two cases in which a midline indicator gains one level of significance, and two cases in which a midline indicator gains two levels of significance.

For the fixed effects interaction specification, there is one case in which an endline indicator and two cases in which a midline indicator loses one level of significance; and one case in which a midline indicator loses two levels of significance. However, there are 24 cases in which an endline indicator and 28 cases in which a midline indicator gains one level of significance; 13 cases in which an endline indicator and seven cases in which a midline indicator gains two levels of significance; and two cases in which an endline indicator and one case in which a midline indicator gains three levels of significance.

For the baseline augmented specification and across the 50 hypotheses, there is one case of an endline hypothesis and two cases of a midline hypothesis losing one level of significance; one case of an endline hypothesis losing two levels of significance; and two cases of endline hypotheses and one case of a midline hypothesis gaining one level of significance. Across the 20 groups, there is one case of an endline group and two cases of a midline group losing one level of significance and two cases of endline groups gaining one level of significance. There are no cases of families changing significance.

For the fixed effects interaction specification, there is only one case of a midline hypothesis losing one level of significance. However, there are nine cases of an endline hypothesis and seven cases of a midline hypothesis gaining one level of significance; seven cases of an endline hypothesis and one case of a midline hypothesis gaining two levels of significance; and one case of an endline hypothesis and one case of a midline hypothesis gaining three levels of significance. Across the 20 groups, there are five cases of an endline group and two cases of a midline group gaining one level of significance; four cases of an endline group gaining significance; and one case of a midline group gaining significance. There is a case each of a midline and endline family gaining one level of significance.

<sup>93</sup> Losses or gains in significance of hypothesis, group, and family indicators are footnoted, rather than being reported in the main text.

## I. Access to Utilities, Services, and Infrastructure

NSP aims to improve the access of Afghan villagers to basic services and infrastructure. To this end, the program disburses ‘block grants’ for village-level projects. This section identifies the midline and endline impacts of NSP – and of specific types of projects funded by NSP – on outcomes directly related to projects, such as access to clean drinking water, electrical connectivity, adequacy of irrigation, and accessibility of villages and mobility of villagers.

In addition to these four groups which NSP-funded projects are expected to directly impact, NSP may also indirectly affect the access of villagers to health and education services.<sup>94</sup> While NSP generally does not fund schools or clinics, impacts on health and education outcomes may arise through program-induced improvements in transportation infrastructure, access to drinking water, and female mobility.

The overall success of NSP in meeting the *ex-ante* development needs of villagers is assessed by examining changes in the types of projects identified as most needed by the village. For example, if project preferences change over time similarly in treatment and control groups, there would be no evidence that NSP meets villagers’ needs. However, if the preferences of villages in either group for certain projects diverge over time, NSP would appear to be at least somewhat effective in meeting villagers’ development needs.

We identify both midline and endline impacts of NSP and NSP-funded projects. Midline impacts are observed when only 19 percent of NSP-funded projects were complete, with endline impacts observed when 99 percent of projects are complete, with 82 percent of projects completed at least 12 months prior. In identifying the impact of specific types of projects, the treatment is defined by projects that were complete at the time of the survey.

Figure 45: Stream in Daulina



Table 9: Test for Aggregate Impact of NSP on Access to Utilities, Services & Infrastructure

|                                                           | Endline      |              | Midline      |              |
|-----------------------------------------------------------|--------------|--------------|--------------|--------------|
|                                                           | Coefficient  | p-Value      | Coefficient  | p-Value      |
| <b>Access to Utilities, Services &amp; Infrastructure</b> | <b>0.046</b> | <b>0.001</b> | <b>0.030</b> | <b>0.003</b> |
| Access to Utilities                                       | 0.071        | 0.006        | 0.058        | 0.018        |
| Access to Services                                        | 0.055        | 0.000        | 0.022        | 0.065        |
| Access to Infrastructure                                  | 0.005        | 0.872        | 0.023        | 0.209        |

Note: Coefficients and p-values for the mean average treatment effect for all indicators grouped in the hypotheses that pertain to the particular group or family. For further information on mean effects estimation, see Section VIII.iv in Part II.

Fixed effects interaction specification renders midline Access to Services estimate significant at the 5 percent level.<sup>95</sup>

The results for tests of the null hypotheses that NSP does not improve access to utilities, services, and infrastructure at midline and/or endline are presented in Table 9.<sup>96</sup> Both null hypotheses are rejected up to the 1 percent level, providing strong evidence of general impact.<sup>97</sup> Among the three groups within the family, NSP has a statistically significant, positive effect on both access to utilities and services at midline and endline, with a stronger effect at endline. There is no statistically significant effect of NSP on access to infrastructure at either midline or endline.

<sup>94</sup> Qualitative studies have noted such indirect impacts, especially for women. See discussion in Section I.ii below.

<sup>95</sup> For family-, group-, or hypothesis-level estimates substantively affected by the addition of baseline controls or the use of the fixed effects interaction specification, the change is noted in the first table in which the estimate appears (but not in subsequent tables). Family- and group- level changes are generally footnoted where referenced first, hypothesis-level changes are footnoted in the relevant ‘group’ section, and indicator-level changes are noted only in the respective sub-sections. Changes in significance level of indicators between 5 and 1 percent are not noted in the respective tables or in the text. See Sections I and II in Appendix V for results.

<sup>96</sup> The hypotheses tests are conducted by combining indicators per the mean effects procedure outlined in Section VIII.iv in Part II.

<sup>97</sup> In discussing results, we note ‘strong evidence of impact’ if it is rejected at the 1 percent level; ‘evidence’ of impact if the null hypothesis is rejected at the 5 percent level; and ‘weak evidence of impact’ if it is rejected at the 10 percent level. If we cannot reject the null hypothesis at the 10 percent level, we note that there is ‘no evidence of impact’.

NSP generally and NSP-funded water projects specifically increase usage of protected water sources at both midline and endline, with water projects and NSP increasing usage by an estimated 36 and 5 percentage points, respectively.<sup>98</sup> Water projects are further estimated to reduce collection times by 30 percent at endline, with NSP causing an estimated 5 percent reduction.<sup>99</sup> At midline, both water projects and NSP reduce water shortages and instances of degraded water quality, although such impacts are not present at endline. NSP has no impact at midline on access to electricity, but there is weak evidence of a 26 percent increase at endline, with NSP-funded electricity projects inducing a 50-fold increase.

The creation of female CDCs has a durable impact on the availability of informal counseling services for women. At endline, women in villages with NSP are 6 percentage points more likely to have a person or group with which they can discuss their problems. NSP also produces a durable increase in girls' school attendance and their quality of learning. There is no effect on boys' school attendance, which indicates that the impact of girls' attendance is driven either by increased female mobility or a heightened value placed on girls' education, rather than by transport improvements. Finally, while there is no recorded impact on measures of health outcomes (such as infant mortality, diarrhea incidence, immunization rates) or access to formal health facilities, NSP improves access to health services, particularly for women. Such results appear to arise from the increased female extra-village mobility caused by NSP, which is discussed further in Section V.v.

Both NSP and NSP-funded local irrigation projects have no impact at endline on the ability of either land-holding villagers or land-holding village leaders to access sufficient irrigation. While there is weak evidence at midline that transportation projects reduce the frequency by which villages are inaccessible, there is no evidence of impact at endline. Further, there is no evidence of impact at either point on village-to-district transportation costs or times or on the mobility of male villagers.

Estimates of impacts on the types of projects preferred by male villagers indicate that, at midline, the program does not fulfill the *ex-ante* development needs of villagers. At endline, there is weak evidence that *ex-post* project preferences in treatment villages are substantively different than those in control villages, which implies that NSP is at least partially successful in meeting the *ex-ante* development needs of male villagers. NSP appears to induce a particularly substantial reduction in needs for drinking water projects, which were demanded by a higher proportion of male villagers at baseline than any other type of project.

The following sections present estimates of the effects of NSP on utilities (I.i); services (I.ii); infrastructure (I.iii); and project preferences (I.iv). Subsections report the results of hypotheses tests and effects for individual indicators for both the general impacts of NSP and the impact of the related NSP-funded projects on specific areas.

### I.i. Utilities

31 percent of projects funded by NSP and 39 percent of block grants expended in treatment villages were invested in water supply and sanitation

Figure 47: Boys Crossing Hari Rud River in Ghor



Figure 46: Landcruiser Fording Stream in Ghor



Figure 48: District Taxi in Balkh



<sup>98</sup> The 'general' effect of NSP refers to the overall impact of the program on the respective outcome(s). It is expected that this effect will be smaller than that of the specific projects.

<sup>99</sup> Note the distinction made between percentage points and percent.

projects and electricity projects. In this section, we explore the impacts of NSP generally and water and electricity projects specifically on access to clean drinking water and electricity.

**Table 10: Test for Impact of NSP on Access to Utilities and Constituent Hypotheses**

|                                | Endline      |              | Midline      |              |
|--------------------------------|--------------|--------------|--------------|--------------|
|                                | Coefficient  | p-Value      | Coefficient  | p-Value      |
| <b>Access to Utilities</b>     | <b>0.071</b> | <b>0.006</b> | <b>0.058</b> | <b>0.018</b> |
| Access to Clean Drinking Water | 0.064        | 0.028        | 0.060        | 0.023        |
| Access to Electricity          | 0.108        | 0.045        | 0.051        | 0.300        |

As reported in Table 10, there is evidence that NSP positively impacts utilities outcomes at midline and strong evidence of impact at endline. That is, the null hypothesis that NSP does not improve access to utilities at midline is rejected at the 5 percent level, while the respective null hypothesis at endline is rejected at the 1 percent level. At the hypothesis-level, both endline and midline results for access to clean drinking water are statistically significant at the 5 percent level, which provides evidence that NSP improves access to clean drinking water at both points in time. NSP has no impact at midline on access to electricity, but increases access at endline.

The sections below summarize the results of tests for the effects of NSP and NSP-funded projects on constituent indicators for drinking water and electricity.

### Drinking Water (H1)

Water supply and sanitation projects (which span deep wells, water supply systems, as well as a few latrines) accounted for 21 percent of NSP-funded projects and 13 percent of block grant expenditure in treatment villages.

**Table 11: Effects of NSP & Water Projects on Access to Clean Drinking Water**

|                                |                                             | Endline     |                     | Midline              |                      |                |
|--------------------------------|---------------------------------------------|-------------|---------------------|----------------------|----------------------|----------------|
|                                |                                             | Coefficient | p-Value             | Coefficient          | p-Value              |                |
| Access to Clean Drinking Water |                                             | 0.064       | 0.028               | 0.060                | 0.023                |                |
| Intervention                   | Indicator                                   | Ins.        | Endline             | Midline              | Trend                | Obs.           |
| NSP                            | Primary Source is Protected                 | FH          | 0.050**<br>[0.023]  | 0.049**<br>[0.022]   | -0.021<br>[0.018]    | 8,038          |
| Water Project (IV)             |                                             |             | 0.359***<br>[0.124] | 0.428**<br>[0.171]   |                      | 3,810<br>4,228 |
| NSP                            | Hours Collecting Water in Past Week<br>(ln) | FH          | -0.053*<br>[0.030]  | 0.053<br>[0.046]     | -1.193***<br>[0.039] | 7,987          |
| Water Project (IV)             |                                             |             | -0.299**<br>[0.134] | 0.517<br>[0.355]     |                      | 3,782<br>4,205 |
| NSP                            | Seasons Last Year Water Poor Quality        | FH          | -0.054<br>[0.062]   | -0.151***<br>[0.055] | 0.104<br>[0.065]     | 7,581          |
| Water Project (IV)             |                                             |             | -0.399<br>[0.319]   | -1.277***<br>[0.431] |                      | 4,196<br>3,385 |
| NSP                            | Seasons Last Year Water Unavailable         | FH          | -0.048<br>[0.035]   | -0.058**<br>[0.027]  | 0.207***<br>[0.038]  | 7,375          |
| Water Project (IV)             |                                             |             | -0.349**<br>[0.171] | -0.534***<br>[0.193] |                      | 4,196<br>3,179 |

Note: \* denotes significance at 10 percent level; \*\* denotes significance at 5 percent level; and \*\*\* denotes significance at 1 percent level. "Ins." denotes instrument (FH: female household; FHR: female household [roster]; FC: female household [child]; FM: female household [maternal]; MH: male household; FG: female focus group; MG: male focus group); "Trend" denotes time trend across control villages between midline and endline survey; and "Obs." denotes number of observations. Estimates of impacts of projects are calculated by an IV procedure outlined in Section VIII.ii in Part II. A village is denoted as having the project type if, per NSP monitoring data, it was completed by May 2009 for midline and by May 2011 for endline results. Constant and matched-pair fixed effects terms are omitted for brevity.

The addition of baseline controls renders endline impact of NSP on *Primary Source is Protected* significant at 10 percent. Fixed effects interaction specification renders endline impacts of NSP on *Houses Collecting Water* and *Seasons Last Year Unavailable* both significant at 5 percent.

**Figure 49: Girls Drawing Water in Balkh**



At both midline and endline, NSP-funded water supply and sanitation projects increase the proportion of households that draw water primarily from a protected source, with a 36 percentage point increase at endline. There is also evidence that NSP generally increases access to protected water sources, although the effect size is much smaller (5 percentage points at endline).<sup>100</sup>

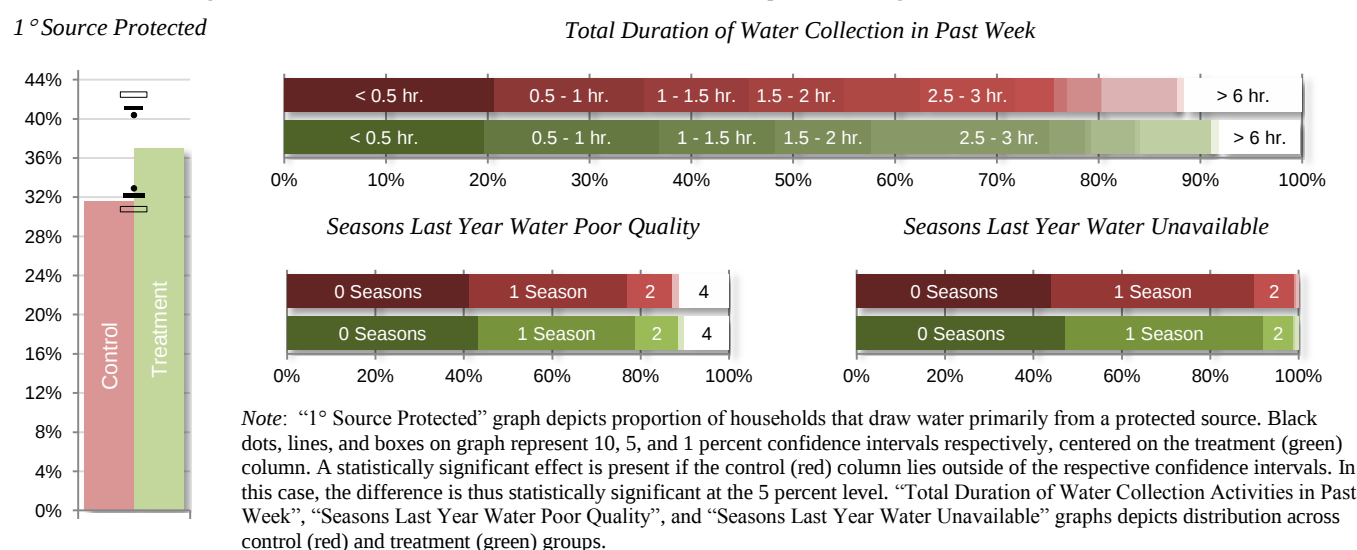
At midline, NSP and water projects do not affect the time households spend collecting water. At endline, however, there is evidence of impact, with water projects inducing a 30 percent reduction in the time households spend collecting water. There is weak evidence that NSP generally reduces the time spent collecting water by 5 percent.<sup>101</sup>

At midline, both NSP and water projects improve perceived water quality, although there is no impact at endline. Similarly, while NSP reduces instances of water sources drying up at midline, there is no endline impact (although the fixed effects interaction specification provides evidence of a 6 percentage point reduction). Water projects increase water availability at both points, with a decrease at endline of 0.35 in the number of seasons primary water sources were dry in the past year.

Figure 50: Unprotected Well in Ghor



Figure 51: Differences between Control and Treatment Groups in Drinking Water Indicators at Endline

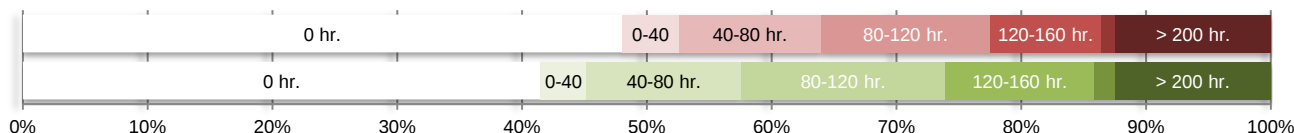


The results for the time trends – which report changes in the control group between 2009 and 2011 – indicate that the time spent collecting water fell for reasons other than NSP, but that the number of seasons that water was unavailable from the primary source generally increased. In control villages, the proportion of households drawing water from protected sources and the incidence of poor quality water generally stayed constant over the period.

## Electricity (H2)

Electricity projects (covering micro-hydro and solar generation units, as well as power lines) accounted for 10 percent of projects implemented and 26 percent of block grant expenditure in treatment areas.

Figure 52: Differences between Control and Treatment Groups in Monthly Electricity Usage at Endline



Electricity projects, as well as NSP generally, increase electricity usage at endline, but not at midline. At endline, NSP induces a 26 percent increase in hours of electricity consumed, while NSP-funded electricity projects induce a 50-fold increase. The time trend indicates that, absent NSP, electricity usage almost doubled between 2009 and 2011.

<sup>100</sup> Baseline augmented specification renders endline impacts significant at 10 percent (see Section I of Appendix II).

<sup>101</sup> Fixed effects interaction specification renders endline impacts significant at 5 percent (see Section I of Appendix IV).

Table 12: Effects of NSP &amp; Electricity Projects on Access to Electricity

|                       | Endline     |         | Midline     |         |
|-----------------------|-------------|---------|-------------|---------|
|                       | Coefficient | p-Value | Coefficient | p-Value |
| Access to Electricity | 0.108       | 0.045   | 0.054       | 0.300   |

| Intervention             | Indicator                                          | Ins. | Endline            | Midline          | Trend               | Obs.           |
|--------------------------|----------------------------------------------------|------|--------------------|------------------|---------------------|----------------|
| NSP                      | Hours of Electricity Used Last Month ( <i>ln</i> ) | MH   | 0.261**<br>[0.130] | 0.131<br>[0.126] | 1.036***<br>[0.143] | 8,932          |
| Electricity Project (IV) |                                                    |      | 4.087**<br>[1.902] | 3.933<br>[3.206] |                     | 4,278<br>4,654 |

### I.ii. Services

While NSP generally does not fund projects which directly provide health care or education, NSP may nevertheless increase access to health and education by reducing travel times, increasing access to clean drinking water, improving security, and increasing female mobility. Similarly, while NSP-funded projects rarely if ever directly fund counseling interventions, qualitative studies report that CDCs create a forum where women meet to discuss their problems.<sup>102</sup>

Table 13: Test for Impact of NSP on Access to Services and Constituent Hypotheses

|                                             | Endline      |              | Midline      |              |
|---------------------------------------------|--------------|--------------|--------------|--------------|
|                                             | Coefficient  | p-Value      | Coefficient  | p-Value      |
| <b>Access to Services</b>                   | <b>0.055</b> | <b>0.000</b> | <b>0.022</b> | <b>0.065</b> |
| Access to Female Counseling                 | 0.192        | 0.001        | 0.219        | 0.000        |
| Access to Education                         | 0.058        | 0.035        | -            | -            |
| Health Outcomes / Access to Health Services | 0.009        | 0.013        | 0.040        | 0.597        |

Note: Baseline augmented specification renders endline *Access to Education* significant at 10 percent.

Overall, there is weak evidence that NSP impacts access to services at midline and strong evidence of impact at endline.<sup>103</sup> At the hypothesis level, there is strong evidence of midline and endline impacts on women's access to counseling. There is also evidence that NSP increases access to education.<sup>104</sup> Although there is no evidence at midline that NSP impacts health outcomes and access to health services, there is evidence of a beneficial impact at endline.

### Counseling Services for Women (H3)

NSP increases the proportion of women who report having someone or a group that they can go to discuss their problems, inducing a 7 percentage point increase at midline and a 6 percentage point increase at endline.

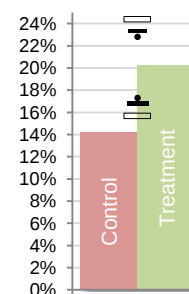
Table 14: Effects of NSP on Access of Counseling Services for Women

|                             | Endline     |         | Midline     |         |
|-----------------------------|-------------|---------|-------------|---------|
|                             | Coefficient | p-Value | Coefficient | p-Value |
| Access to Female Counseling | 0.185       | 0.001   | 0.207       | 0.000   |

| Indicator                     | Ins. | Endline             | Midline             | Trend               | Obs.  |
|-------------------------------|------|---------------------|---------------------|---------------------|-------|
| Counseling Services Available | MH   | 0.059***<br>[0.017] | 0.067***<br>[0.014] | 0.068***<br>[0.016] | 8,021 |

Figure 53: Access to Counseling at Endline



### Education (H4)

Excluding literacy and vocational training, NSP does not fund educational interventions. Nonetheless, NSP may affect education outcomes by easing transportation constraints to school attendance or by increasing security; by improving

<sup>102</sup> Barakat (2006), for instance, reports that CDCs provide women with a forum to discuss “health, domestic violence, literacy” and other issues (p. 59 – 60) and cites a village where “the women said they had not even known each other, though [neighbors], until they were able to meet in the women’s [council]” (p. 84). Echavez (2011) notes that the “CDC created a safe space for women to come together and discuss issues, problems and solutions” and that all “CDC members . . . perceived this change as a milestone in their lives.” (p. 30).

<sup>103</sup> Fixed effects interaction specification provides evidence of impact at midline.

<sup>104</sup> Baseline controls reduce the significance of the hypothesis test estimate to 10 percent, providing weak evidence of impact.

economic outcomes and thereby reducing the need for child labor; and/or by exposing parents to messages that stress the value of education, particularly girls' education.

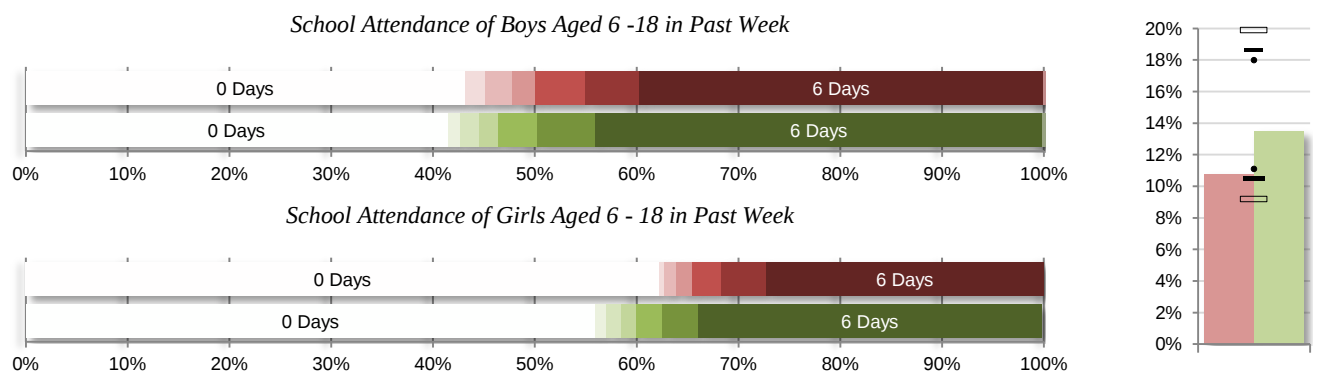
Table 15: Effects of NSP on Access to Education

|                                            | Endline     |                    | Midline     |         |       |
|--------------------------------------------|-------------|--------------------|-------------|---------|-------|
|                                            | Coefficient | p-Value            | Coefficient | p-Value |       |
| Access to Education                        | 0.058       | 0.035              | -           | -       |       |
| Indicator                                  | Ins.        | Endline            | Midline     | Trend   | Obs.  |
| Days Boy Attended School in Past Week      | FHr         | -0.047<br>[0.103]  | -           | -       | 4,931 |
| Days Girl Attended School in Past Week     | FHr         | 0.283**<br>[0.128] | -           | -       | 4,506 |
| Girl Correctly Completed Basic Calculation | FC          | 0.037*<br>[0.021]  | -           | -       | 1,297 |

Note: The addition of baseline controls render endline *Girl Correctly Completed Basic Calculation* estimate insignificant.

At endline, NSP increases girls' school attendance by an average of 0.28 days per week,<sup>105</sup> but there is no evidence of impact on boys' school attendance.<sup>106</sup> A measure of girls' educational quality –whether a girl aged between 7 and 10 could calculate nine times five – is weakly impacted by NSP (but loses significance with addition of baseline controls).

Figure 54: Differences between Control and Treatment Groups in Education Indicators at Endline



## Health Services and Health Outcomes (H5)

NSP rarely funds projects that directly provide health care. However, NSP-funded projects that improve access to clean drinking water and sanitation may reduce the incidence of water-borne diseases, such as diarrhea. Transport projects may also improve access to care through reducing travel times to administrative centers. Finally, impacts of NSP on female mobility, if realized, may also result in women more readily seeking care.<sup>107</sup>

At endline, there is no evidence that NSP affects the incidence of diarrhea among children. There is strong evidence that NSP increases by 6 percentage points the proportion of children who visited a doctor in the past year. There is no evidence that NSP reduces infant mortality at either midline or endline. There is also no evidence at midline that NSP affects access to prenatal care, although there is evidence that NSP induces a 7 percentage point increase in visits by expectant mothers at endline. Curiously, there is weak evidence that NSP reduces birth attendance by medical professionals at midline,<sup>108</sup> but no evidence of impact at endline. There is no evidence of impacts on the probability that a mother gives birth at a medical facility or receives a tetanus injection during pregnancy.

<sup>105</sup> Midline data for the exact indicator (which measures attendance for each girl individually) is not available. A similar household-level midline question provides evidence of impact on girls' attendance, although the effect is not robust to baseline controls (see p.63 of [Beath et al. \(2010\)](#)). At endline, the low-level of girls' attendance is driven by low enrolment, which averages 44 percent. On average, enrolled girls attended 5.1 days of school in the previous week.

<sup>106</sup> At midline, household-level data provides no evidence of impact on boys' attendance (see p.63 of [Beath et al. \(2010\)](#)). Low levels of boys' attendance are caused by low enrolment, which averages 63 percent. Enrolled boys averaged 5.0 days of school in the past week.

<sup>107</sup> [Echavez \(2010\)](#) reports that CDC participation increases female mobility, enabling women to visit a doctor alone if they are ill (p. 24).

<sup>108</sup> Fixed effects interaction specification renders midline impacts significant at 5 percent.

Table 16: Effects of NSP on Health Outcomes &amp; Availability of Health Services

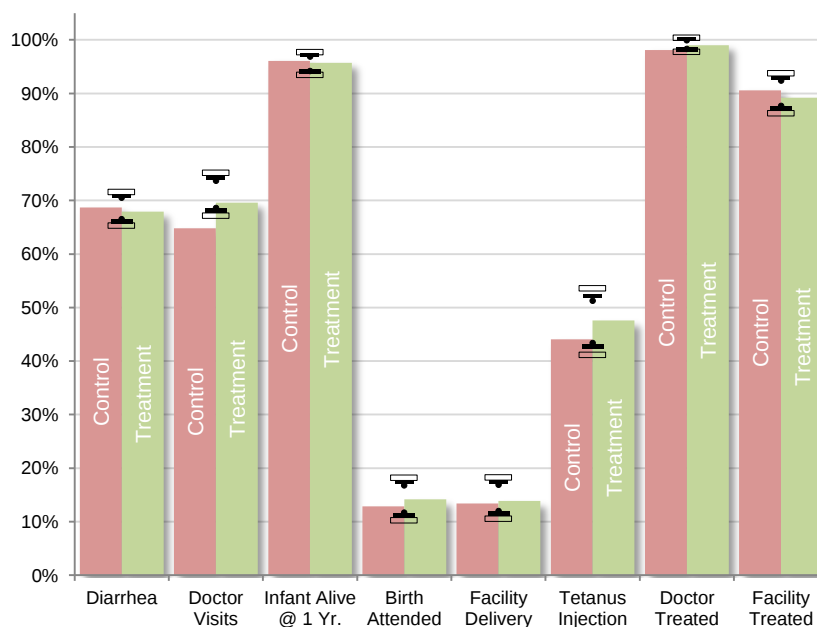
| Health Outcomes / Access to Health Services |      | Endline             |                    | Midline             |         |
|---------------------------------------------|------|---------------------|--------------------|---------------------|---------|
|                                             |      | Coefficient         | p-Value            | Coefficient         | p-Value |
|                                             |      | 0.009               | 0.013              | 0.040               | 0.597   |
| Indicator                                   | Ins. | Endline             | Midline            | Trend               | Obs.    |
| Child had Diarrhea in Past 2 Weeks          | FHr  | -0.002<br>[0.012]   | -                  | -                   | 5,020   |
| Child Visited Doctor in Past Year           | FHr  | 0.064***<br>[0.015] | -                  | -                   | 5,010   |
| Most Recent Born Was Alive at 1 Year        | FM   | -0.005<br>[0.008]   | 0.001<br>[0.007]   | -0.009<br>[0.008]   | 3,534   |
| Episodes of Prenatal Care ( <i>ln</i> )     | FM   | 0.065**<br>[0.031]  | 0.000<br>[0.032]   | -0.043<br>[0.034]   | 3,426   |
| Birth Attended by Medical Professional      | FM   | 0.014<br>[0.015]    | -0.031*<br>[0.017] | -0.003<br>[0.017]   | 3,542   |
| Birth Delivered at Medical Facility         | FM   | 0.011<br>[0.015]    | -0.014<br>[0.015]  | 0.037***<br>[0.014] | 3,549   |
| Received Tetanus Injection                  | FM   | 0.033<br>[0.024]    | 0.016<br>[0.026]   | 0.039<br>[0.028]    | 3,505   |
| Illness Treated by Medical Professional     | FH   | 0.010**<br>[0.005]  | 0.012**<br>[0.005] | -0.001<br>[0.006]   | 4,595   |
| Illness Treated at Medical Facility         | FH   | -0.006<br>[0.014]   | 0.027*<br>[0.014]  | -0.016<br>[0.018]   | 4,627   |

Note: Fixed effects interaction specification renders midline impacts on *Birth Attendance by Medical Professional* and *Illness Treated at Medical Facility* both significant at 5 percent level.

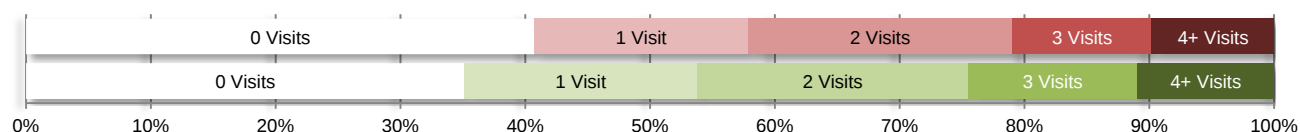
At midline and endline, there is evidence that NSP increases the probability that a villager suffering an illness or injury will be attended to by a medical professional. The effect sizes are, however, small, averaging 1.2 percentage points at midline and 1.0 percentage points at endline. There is weak evidence that NSP increases the probability that a villager suffering an illness or injury will be treated at a medical facility (e.g., a clinic, hospital, or doctor's office) at midline,<sup>109</sup> but no evidence at endline.

The results of the time trend indicate that the proportion of births delivered at medical facilities increased in control villages between 2009 and 2011, but that there were no other general changes, other than those caused by NSP.

Figure 55: Differences in Health Indicators at Endline



Episodes of Prenatal Care during Pregnancy



<sup>109</sup> Fixed effects interaction specification renders midline impacts significant at 5 percent.

### I.iii. Infrastructure

Across treatment villages, approximately 44 percent of projects funded by NSP and 31 percent of block grants expended focused on local irrigation or transportation projects. This section explores impacts of NSP and NSP-funded irrigation and transportation projects on the access of land-holding villagers to irrigation and on village accessibility and villagers' mobility, respectively.

At endline, NSP has no impact on the access of villagers to irrigation. There is also no evidence of impact at midline or endline that NSP improves village accessibility or increases the mobility of villagers. Overall, there is no evidence that NSP improves access to infrastructure, either at midline or endline.

Figure 56: Transportation in Balkh



Table 17: Test for Impact of NSP on Access to Infrastructure and Constituent Hypotheses

|                                             | Endline      |              | Midline      |              |
|---------------------------------------------|--------------|--------------|--------------|--------------|
|                                             | Coefficient  | p-Value      | Coefficient  | p-Value      |
| <b>Access to Infrastructure</b>             | <b>0.005</b> | <b>0.872</b> | <b>0.023</b> | <b>0.209</b> |
| Access to Irrigation                        | 0.015        | 0.696        | -            | -            |
| Village Accessibility and Villager Mobility | 0.026        | 0.669        | 0.202        | 0.174        |

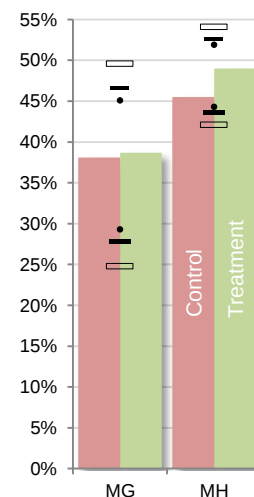
### Irrigation (H6)

Local irrigation projects (spanning the construction or rehabilitation of village canals, *karizes*, streams, dams, reservoirs, pipe schemes, intakes, and gabion walls) account for 25 percent of NSP-funded projects and 15 percent of block grant expenditure in treatment villages.

Table 18: Effects of NSP on Access to Irrigation

|                         |                                                       |      | Endline           |         | Midline     |         |
|-------------------------|-------------------------------------------------------|------|-------------------|---------|-------------|---------|
|                         |                                                       |      | Coefficient       | p-Value | Coefficient | p-Value |
| Access to Irrigation    |                                                       |      | 0.015             | 0.696   | -           | -       |
| Intervention            | Indicator                                             | Ins. | Endline           | Midline | Trend       | Obs.    |
| NSP                     | Proportion of Participants with Sufficient Irrigation | MG   | -0.009<br>[0.048] | -       | -           | 403     |
| Irrigation Project (IV) |                                                       |      | -0.041<br>[0.145] | -       | -           | 403     |
| NSP                     | Proportion of Land Sufficiently Irrigated             | MH   | 0.026<br>[0.023]  | -       | -           | 2,891   |
| Irrigation Project (IV) |                                                       |      | 0.165<br>[0.142]  | -       | -           | 2,891   |

Figure 57: Irrigation (EL)



There is no evidence that NSP or NSP-funded village-level irrigation projects have any impact at endline on access to irrigation.<sup>110</sup> This applies to measures of whether land-owning villagers report that their land received sufficient irrigation during the most recent cultivation season and to the proportion of male focus group participants (ordinarily, village leaders) who report that their land received sufficient irrigation during the most recent cultivation season.

### Accessibility and Mobility (H7)

Local transportation projects (which include bridges, foot bridges, culverts, secondary and tertiary road resurfacing, retaining walls, and access roads) account for 19 percent of NSP-funded projects and 16 percent of block grant expenditure in treatment villages.

Figure 58: Interview in Daulina



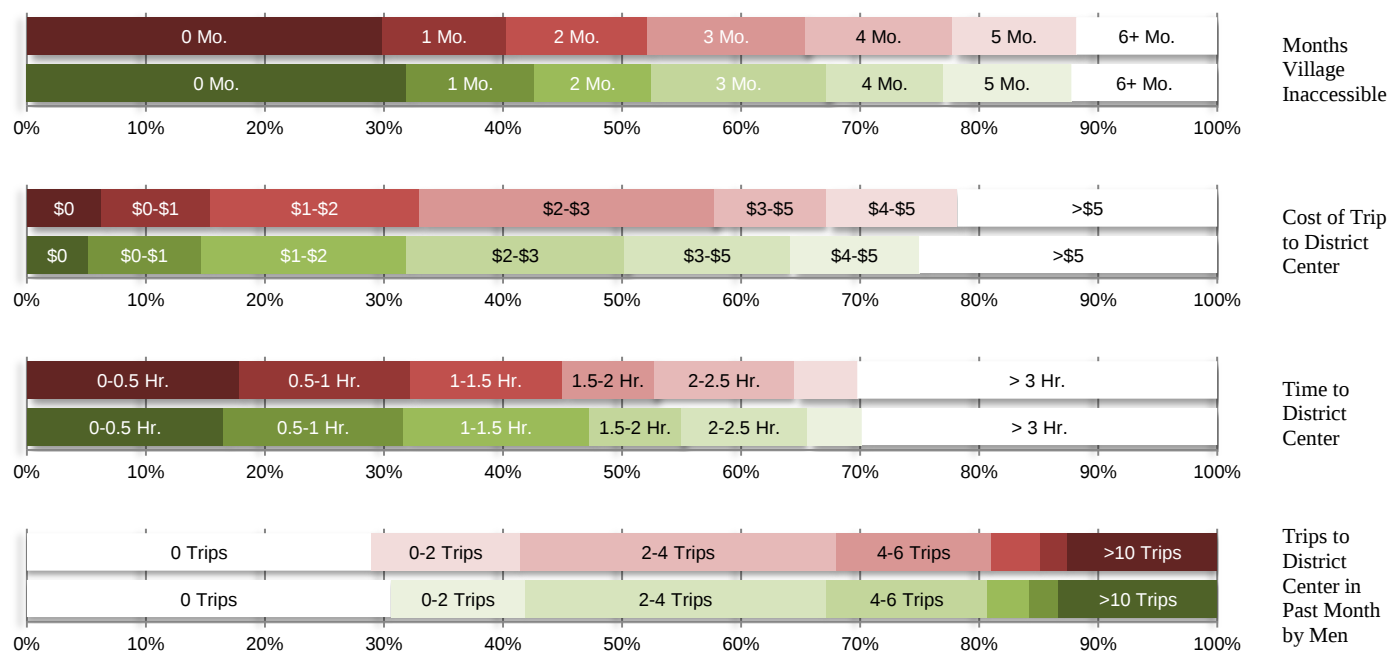
<sup>110</sup> Midline data for these specific indicators are not available. For analysis of similar midline questions, see p.61 of Beath et al. (2010).

Table 19: Effects of NSP &amp; Road Projects on Village Accessibility &amp; Villager Mobility

|                            |                                        |      | Endline           |                    | Midline             |                |
|----------------------------|----------------------------------------|------|-------------------|--------------------|---------------------|----------------|
|                            |                                        |      | Coefficient       | p-Value            | Coefficient         | p-Value        |
| Accessibility and Mobility |                                        |      | 0.026             | 0.669              | 0.202               | 0.174          |
| Intervention               | Indicator                              | Ins. | Endline           | Midline            | Trend               | Obs.           |
| NSP                        | Months Village Inaccessible            | MG   | 0.020<br>[0.204]  | -0.175<br>[0.147]  | -0.284<br>[0.201]   | 879            |
| Road Project (IV)          |                                        |      | 0.600<br>[1.381]  | -1.905*<br>[1.088] | -<br>-              | 413<br>466     |
| NSP                        | Cost of Transportation ( <i>ln</i> )   | MH   | 0.003<br>[0.038]  | -0.011<br>[0.042]  | 0.127***<br>[0.033] | 2,398          |
| Road Project (IV)          |                                        |      | -0.068<br>[0.118] | -0.069<br>[0.194]  | -<br>-              | 1,144<br>1,254 |
| NSP                        | Time to District Center ( <i>ln</i> )  | MH   | -0.003<br>[0.049] | 0.009<br>[0.046]   | -0.093**<br>[0.038] | 8,906          |
| Road Project (IV)          |                                        |      | -0.145<br>[0.319] | 0.127<br>[0.482]   | -<br>-              | 4,262<br>4,644 |
| NSP                        | Trips to District Center ( <i>ln</i> ) | MH   | 0.002<br>[0.047]  | 0.059<br>[0.043]   | -0.114**<br>[0.049] | 8,963          |
| Road Project (IV)          |                                        |      | 0.114<br>[0.282]  | 0.557<br>[0.375]   | -<br>-              | 4,316<br>4,647 |

Impacts of local transportation projects – and NSP generally – on the accessibility and mobility indicators tested are limited. At endline, there is no evidence that NSP or NSP-funded transportation projects affect the number of months per year that villages are accessible, the cost of transporting produce to the district center, the duration of travel to the district center, or the number of trips that villagers make to the district center. At midline, there is weak evidence that NSP-funded transportation projects increase village accessibility, but no other impacts.

Figure 59: Difference in Accessibility and Mobility at Endline



The results of the time trend indicate that, between 2009 and 2011, the cost of transporting wheat to district markets generally increased; the time of travel to the district center generally fell; and the number of trips made by villagers to the district center decreased. There was no change in the number of months per year that local roads were impassable.

#### I.iv. Project Preferences

CDD projects employ democratic or otherwise participatory processes to ensure local input into project selection and thereby align the types of implemented projects with those most needed by villagers. A key outcome of interest is thus whether NSP has been successful in meeting the *ex-ante* development needs of villagers, which can be assessed by examining changes over time in the types of projects that villagers identify as being the most needed by the village. In the event that NSP has been successful in meeting the needs of villagers, we would for instance expect a shift away from projects originally preferred by villagers to different types of projects. The control group provides a means by which to separate such impacts from the underlying time trend.

Overall, there is no evidence that NSP succeeds in meeting the project preferences of male villagers at midline. There is, however, weak evidence that NSP meets the project preferences of male villagers at endline, which implies that this need is at least partially being met by NSP.

#### Project Preferences of Male Villagers (H8)

There is no evidence that NSP changes the types of projects most preferred by male villagers at midline.<sup>111</sup> Due to non-NSP factors, the proportion of male villagers who prefer drinking water or school projects declines substantially between the baseline in 2007 and the midline in 2009, while the proportion preferring electricity projects increased from 7 percent in control villages and 8 percent in treatment villages at baseline to 25 percent in control villages and 27 percent in treatment.

Table 20: Effects of Project Preferences of Male Villagers

| Indicator                        | Ins. | Endline Impact     | Midline Impact   | Base-End Trend      | Base-Mid Trend   | Obs.   |
|----------------------------------|------|--------------------|------------------|---------------------|------------------|--------|
| Stability of Project Preferences | MH   | -0.301<br>[0.178]* | 0.010<br>[0.177] | 0.818***<br>[0.284] | 0.153<br>[0.290] | 60,848 |

Note: Estimates are calculated by fixed effects logit regression specification outlined in Section VIII.iii in part II.

At endline, there is weak evidence that NSP changes the stability of the project preferences of male villagers. Specifically, NSP reduces the demand for drinking water projects, while increasing the demand for irrigation projects and schools projects. Between the midline in 2009 and the endline in 2011, there is evidence of a general reduction across the sample in demand for electricity projects and a general increase in demand for irrigation projects.

Figure 61: Hari Rud River in Ghor



Figure 62: Mountain Pass in Ghor

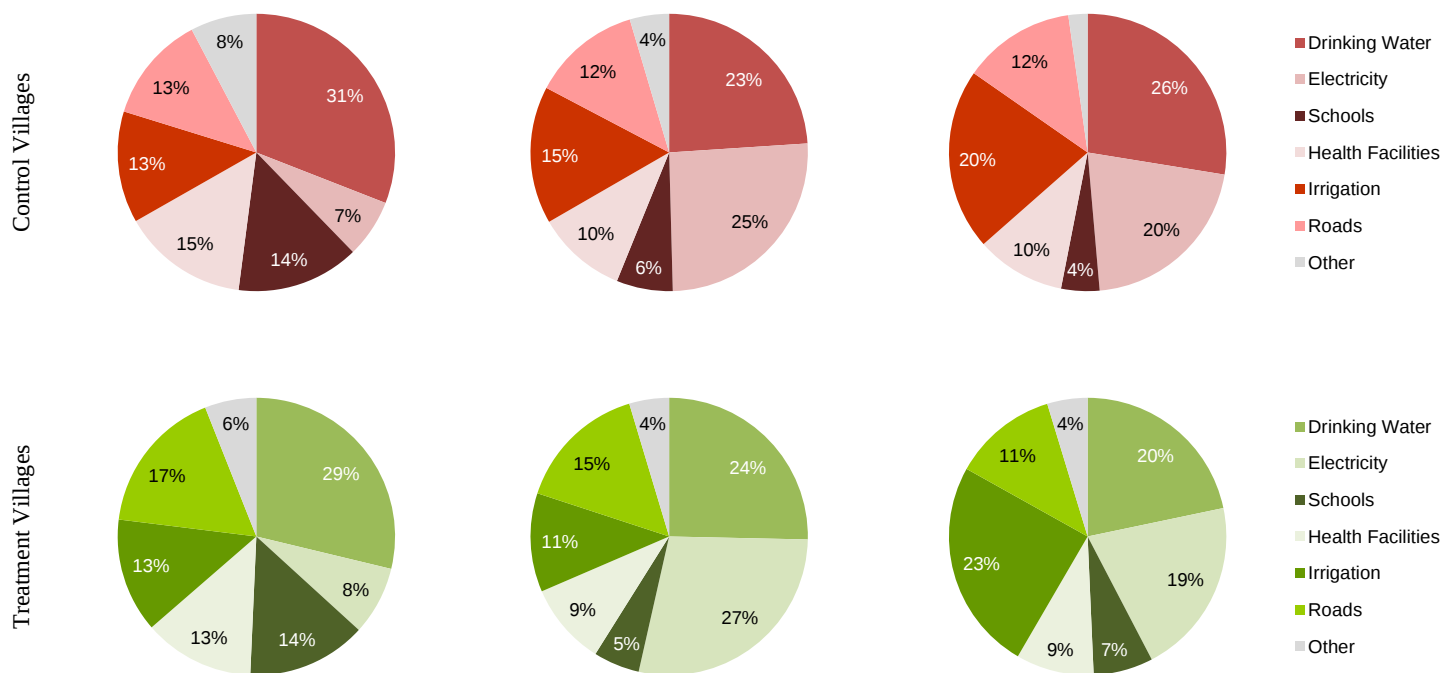


Figure 60: Village in Daulina



<sup>111</sup> Note that the sample of male villagers is restricted here to those respondents surveyed during the baseline, midline, and endline. As only male respondents were deliberately repeatedly surveyed, the analysis is unfortunately restricted to male villagers only.

**Figure 63: Project Preferences of Male Villagers in Control and treatment Villages at Baseline, Midline, and Endline**  
*Baseline (2007) Midline (2009) Endline (2011)*



**Figure 64: Male Villagers in Daulina**



## II. Economic Welfare

The infusion of block grant resources and completion on village infrastructure projects provides separate mechanisms by which NSP may impact economic outcomes in the short- and medium-term:

**Short-Term Effects:** Project construction infuses resources into villages, mainly through the payment of wages to laborers,<sup>112</sup> but also through the procurement of raw materials. This may potentially deliver a short-term ‘stimulus’ effect;

**Medium-Term Effects:** The completion of effective infrastructure projects may improve general economic outcomes. Improvements in irrigation could, for example, increase land use, agricultural productivity, yields, and thereby farm income. Durable improvements in road and bridge infrastructure should reduce the cost of transporting goods to market, result in increased commercialization of agricultural and non-agricultural sectors, and increase sales revenue.

If present, these effects may increase household income and consumption, lessen the need for households to borrow for consumption purposes, improve perceptions of villagers of their economic situation and optimism about future economic changes, and reduce out-migration. In this section, we identify both the midline and endline impacts of NSP on these economic outcomes.

**Table 21: Test for Aggregate Impact of NSP on Economic Welfare**

| Economic Activity        | Endline      |              | Midline      |              |
|--------------------------|--------------|--------------|--------------|--------------|
|                          | Coefficient  | p-Value      | Coefficient  | p-Value      |
| <b>Economic Activity</b> | <b>0.086</b> | <b>0.063</b> | <b>0.043</b> | <b>0.034</b> |
| Perceptions              | 0.080        | 0.001        | 0.118        | 0.000        |
| Stocks and Flows         | 0.016        | 0.204        | 0.021        | 0.048        |
| Production and Marketing | 0.202        | 0.174        | 0.026        | 0.669        |
| Migration                | 0.061        | 0.116        | 0.090        | 0.009        |

*Note:* Baseline controls render midline *Stocks & Flows* and *Migration* estimates both significant at 10 percent. Fixed effects interaction specification renders endline *Economic Activity* estimates significant at 5 percent, respectively; endline *Stocks and Flows* estimates significant at 10 percent; midline *Production and Marketing* estimates significant at 1 percent; and endline *Migration* estimates significant at 5 percent.

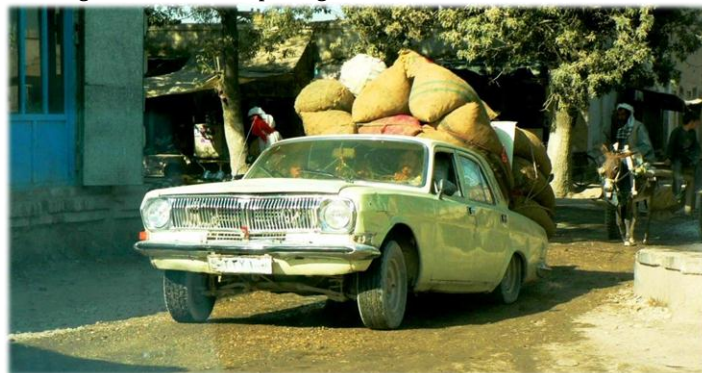
As reported in Table 21, there is evidence that NSP improves economic outcomes at midline and weak evidence of impact at endline.<sup>113</sup> Midline impacts are driven by changes in economic perceptions and net migration, while endline impacts are driven mostly by improvements in economic perceptions.

There is strong evidence that NSP improves how villagers perceive the local economic situation. At both midline and endline, female villagers are more likely to report that their household’s economic situation has improved in the past year and are more likely to report that they expect local economic conditions to improve in the forthcoming year. Among male villagers, the former effect is present at the midline, but not at endline, while the latter effect is present at both points, but weaker at endline.

**Figure 65: Wheat Field in Ghor**



**Figure 66: Car Transporting Wheat to District Market in Balkh**



<sup>112</sup> Data from male focus group respondents indicates that treatment villagers received an average of \$10,067 (median is \$1,800) during the past three years in wages paid for project construction / implementation, compared to \$1,398 (median is \$0) in control villages. The per household payments averaged \$58 (median: \$12) and \$12 (median: \$0), respectively.

<sup>113</sup> Fixed effects interaction specification provides evidence of impact at endline (see Section II of Appendix V).

There is evidence that NSP impacts economic stocks and flows at midline, but no evidence of endline impacts.<sup>114</sup> At both points, no impacts are observed on income levels, income regularity, consumption levels, consumption allocations, assets, borrowing function, and food insecurity. At midline, there is weak evidence of impacts on income sources and caloric intake, although there is no evidence of endline impact. At endline, there is weak evidence of impact on borrowing volume.

There is no evidence that NSP impacts production and marketing outcomes at midline or endline.<sup>115</sup> For agricultural production and access to markets, no statistically significant effects are observed at endline, with only sales revenue impacted at midline. For non-agricultural production and access to markets, there is no evidence of effects on any indicators at endline, with only handicraft sales and sales revenue impacted at midline.

There is some inconclusive evidence that NSP impacts migration behavior.<sup>116</sup> Although the basic specification indicates that NSP increases net migration of households, the result is not robust to the inclusion of baseline data. There is no evidence that NSP alters intra-household migration patterns.

That economic effects of NSP accrue mainly in the short-term indicates that impacts are driven more by the ‘stimulus’ provided by block grants than completed projects. This comes about apparently not just due to the relative ineffectiveness of irrigation and transportation projects to deliver improvements in agricultural productivity and access to markets (see Section I.iii), but also due to the failure of other projects to deliver sustained increases in livelihoods. However, that NSP has sustained positive impacts on the economic perceptions of women is demonstrative of the economic, institutional, and social improvements brought by female participation in NSP implementation and by NSP-funded projects that particularly affect women’s lives, such as those focused on drinking water and sanitation.

The following sections present estimates of the effects of NSP on economic perceptions (II.i); stocks and flows (II.ii); production and marketing (II.iii); and migration (II.iv).

## II.i. Perceptions

Self-perceptions of economic well-being may detect changes in economic outcomes more quickly than objective economic measures, while potentially also better detecting broad-based movements in well-being. This section explores the impacts of NSP on economic self-perceptions and, specifically, on the proportion of male and female villagers who perceive that the economic situation of their household improved in the past year and the proportions that believe the economic situation in the village will improve in the forthcoming year.

There is strong evidence at both midline and endline that NSP improves economic perceptions of villagers’ generally. The effect is pronounced for female villagers, but less definitive for male villagers. For male villagers at least, the perceived benefits of NSP appear to accrue more during the period of project implementation, which would seem to indicate that stimulus impacts dominate longer-term economic effects. That NSP induces more favorable perceptions among female villagers also reinforces the findings of Section I that utilities projects, which are more relevant to women, are more effective than infrastructure projects, which are more relevant for men.

Figure 67: Blacksmith & Son in Bamiyan



Figure 68: Man & Load in Bamiyan



<sup>114</sup> Baseline augmented specification provides weak evidence of impact at midline (see Section II of Appendix III). Fixed effects interaction specification provides weak evidence of a positive impact at endline on the *Stocks and Flows* group.

<sup>115</sup> Fixed effects interaction specification provides strong evidence of a positive impact at midline on the *Production and Marketing* group.

<sup>116</sup> Fixed effects interaction specification provides evidence of a positive impact at endline on the *Migration* group.

## Perceptions of Local Economy (H9)

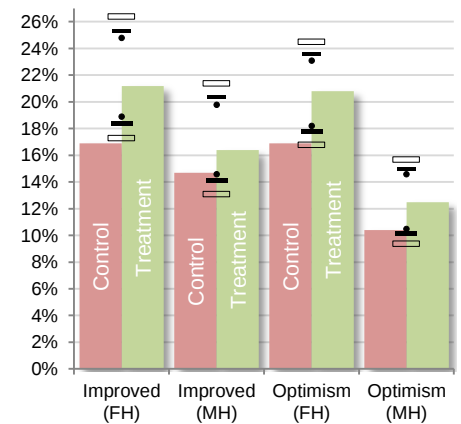
At both midline and endline, NSP increases the proportions of female villagers who perceive that their household's economic situation improved last year and who expect the local economic situation to improve next year. Among male villagers, there is strong evidence that NSP improves economic perceptions and optimism at midline, but no evidence of impacts on economic perceptions at endline (the fixed effects interaction specification provides weak evidence of a 2 percentage point increase) and only weak evidence of impacts on optimism at endline.<sup>117</sup> The time trends are significant and substantively large, implying that villagers in control villages developed worse economic perceptions and became less optimistic between 2009 and 2011.

Table 22: Effects of NSP on Perceptions of Local Economy

|                                                 |      | Endline             |                     | Midline              |         |
|-------------------------------------------------|------|---------------------|---------------------|----------------------|---------|
|                                                 |      | Coefficient         | p-Value             | Coefficient          | p-Value |
| Economic Perceptions                            |      | 0.080               | 0.001               | 0.118                | 0.000   |
| Indicator                                       | Ins. | Endline             | Midline             | Trend                | Obs.    |
| Economic Situation Improved in Past Year        | FH   | 0.050***<br>[0.018] | 0.051***<br>[0.018] | -0.133***<br>[0.022] | 8,032   |
|                                                 | MH   | 0.025<br>[0.016]    | 0.053***<br>[0.017] | -0.200***<br>[0.020] | 8,981   |
| Expects Economic Situation to Improve Next Year | FH   | 0.038**<br>[0.015]  | 0.047***<br>[0.017] | -0.221***<br>[0.018] | 8,017   |
|                                                 | MH   | 0.022*<br>[0.012]   | 0.050***<br>[0.014] | -0.156***<br>[0.015] | 8,946   |

Note: Fixed effects interaction specification renders endline *Economic Situation Improved in Past Year* (MH) estimates significant at 10 percent and endline *Expects Economic Situation to Improve Next Year* (MH) estimates significant at 5 percent.

Figure 69: Difference between Control and Treatment in Economic Perceptions at Endline



## II.ii. Stocks and Flows

This section explores the midline and endline impacts of NSP on stocks and flows. Such measures provide an objective assessment of the economic effects of the program, both in terms of any short-term stimulus arising from infusions of block grant resources and any longer-term structural economic changes that arise from improvements to infrastructure.

As reported in Table 23, there is no evidence that NSP improves objective economic outcomes at endline, although there is evidence of midline impact. NSP has no effect at endline on the security of household income and there is only weak evidence of midline impact.<sup>118</sup> NSP also has no on consumption expenditure, borrowing behavior,<sup>119</sup> or food security.

Table 23: Test for Impact of NSP on Stocks & Flows and Constituent Hypotheses

|                                      | Endline      |              | Midline      |              |
|--------------------------------------|--------------|--------------|--------------|--------------|
|                                      | Coefficient  | p-Value      | Coefficient  | p-Value      |
| <b>Stocks and Flows</b>              | <b>0.016</b> | <b>0.204</b> | <b>0.021</b> | <b>0.048</b> |
| Security of Household Income         | 0.023        | 0.355        | 0.049        | 0.059        |
| Household Consumption Expenditure    | -0.008       | 0.781        | 0.007        | 0.796        |
| Household Assets                     | 0.020        | 0.428        | 0.013        | 0.553        |
| Borrowing for Food and Medical Needs | 0.056        | 0.168        | 0.009        | 0.721        |
| Food Security                        | -0.004       | 0.831        | 0.016        | 0.282        |

Note: Fixed effects interaction specification renders endline and midline *Security of Household Income* estimates significant at 10 and 1 percent, respectively, and endline *Borrowing for Food and Medical Needs* estimate significant at 10 percent.

Figure 70: Potato Field in Bamiyan



<sup>117</sup> Fixed effects interaction specification renders optimism significant at 5 percent (see Section II of Appendix IV).

<sup>118</sup> Fixed effects interaction specification provides weak evidence of a beneficial impact at endline and strong evidence at midline (see Section I of Appendix V).

<sup>119</sup> Fixed effects interaction specification provides weak evidence of a beneficial impact at endline.

## Security of Household Income (H10)

Although household income is slightly higher, on average, in treatment villages, there is no robust evidence that NSP increases household income at midline or endline (the fixed effects interaction specification provides evidence of a 4 percent increase at midline and endline).<sup>120</sup> Similarly, NSP does not affect regularity in household income, as measured by the number of seasons during the past year income was earned. Finally, there is no evidence that NSP reduces dependence on subsistence agriculture at endline, although there is weak evidence of a beneficial impact at midline.<sup>121</sup> The time trends indicate that income levels, income regularity, and non-dependence on subsistence agriculture increased between mid-2009 and mid-2011.<sup>122</sup>

Figure 71: Differences between Control and Treatment Groups in Security of Household Income at Endline

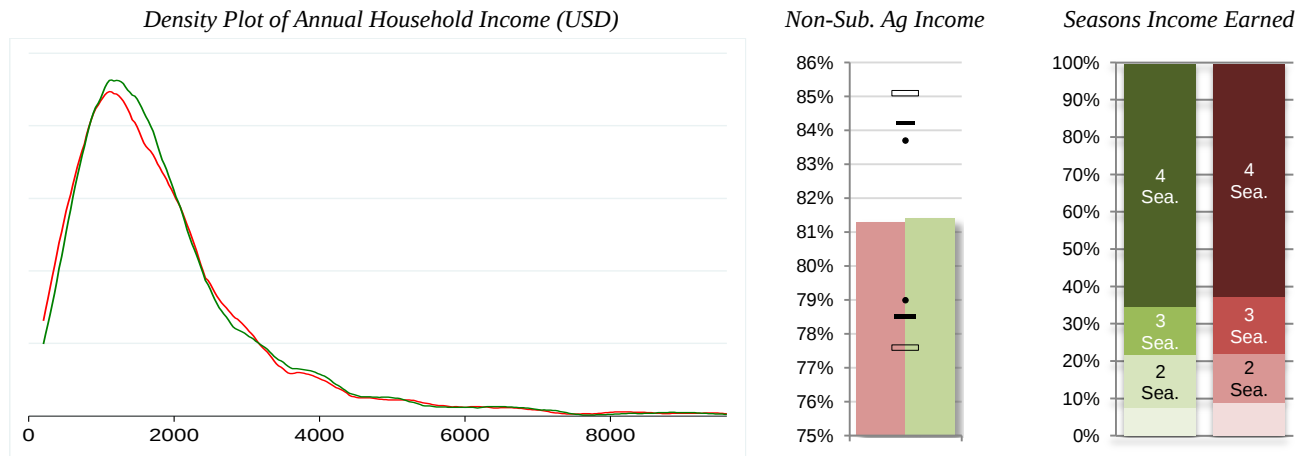


Table 24: Effects of NSP on Security of Household Income

|                                                                | Endline     |                  | Midline           |                     |       |
|----------------------------------------------------------------|-------------|------------------|-------------------|---------------------|-------|
|                                                                | Coefficient | p-Value          | Coefficient       | p-Value             |       |
| Household Income Security                                      | 0.023       | 0.355            | 0.049             | 0.059               |       |
| Indicator                                                      | Ins.        | Endline          | Midline           | Trend               | Obs.  |
| Income Earned in Past Year ( <i>ln</i> )                       | MH          | 0.037<br>[0.026] | 0.038<br>[0.024]  | 0.281***<br>[0.029] | 8,870 |
| Number of Seasons Income Earned                                | MH          | 0.030<br>[0.038] | 0.042<br>[0.040]  | 0.298***<br>[0.051] | 8,875 |
| Income Derived from Sources other than Subsistence Agriculture | MH          | 0.001<br>[0.015] | 0.027*<br>[0.015] | 0.164***<br>[0.017] | 8,891 |

Note: Fixed effects interaction specification renders midline and endline impacts on *Income Earned in Past Year* significant at 5 percent and midline impact on *Income Derived from Sources other than Subsistence Agriculture* significant at 5 percent.

## Household Consumption Expenditure (H11)

At both midline and endline, there is no evidence that NSP impacts either the level of annual expenditure or the ratio of food expenditure to total expenditure.<sup>123</sup> There is also no evidence of either midline or endline impacts on household consumption expenditure generally. The time trend indicates that, in control villages, household expenditure increased and the ratio of food expenditure to total expenditure fell between 2009 and 2011.

<sup>120</sup> Household income at midline was derived from a maximum of two income sources, while the endline figure was derived from a maximum of three sources. 36 percent of households at endline reported a tertiary source, with tertiary sources contributing 15 percent to total household income, on average. The mean annual household income at endline is \$1,976 and the median income is \$1,560. At endline, the mean annual household income derived from the primary source is \$1,450 and the median primary income is \$1,000. At midline, the mean annual income derived from the primary source is \$1,120 and the median primary income is \$900.

<sup>121</sup> Fixed effects interaction specification renders the midline impact significant at 5 percent.

<sup>122</sup> The midline and endline annual household income measures are not strictly comparable due to the addition of a third income source in composing the latter indicator.

<sup>123</sup> At endline, the mean household expenditure is \$2,832 and the median household expenditure is \$2,000.

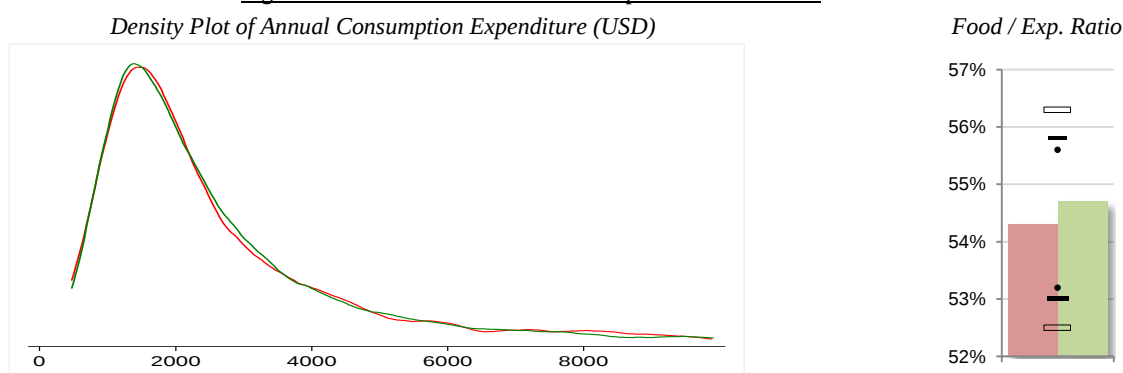
Table 25: Effects of NSP on Household Consumption Expenditure

|                                   | Endline     |         | Midline     |         |
|-----------------------------------|-------------|---------|-------------|---------|
|                                   | Coefficient | p-Value | Coefficient | p-Value |
| Household Consumption Expenditure | -0.008      | 0.781   | 0.007       | 0.796   |

| Indicator                                      | Ins. | Endline           | Midline           | Trend                | Obs.  |
|------------------------------------------------|------|-------------------|-------------------|----------------------|-------|
| Annual Expenditure ( <i>ln</i> )               | MH   | -0.004<br>[0.026] | 0.004<br>[0.022]  | 0.177***<br>[0.025]  | 8,333 |
| Ratio of Food Expenditure to Total Expenditure | MH   | 0.001<br>[0.007]  | -0.002<br>[0.007] | -0.074***<br>[0.009] | 8,327 |

Figure 72: Differences in Household Expenditure at Endline



### Household Assets (H12)

There is no evidence that NSP increases ownership of livestock or ownership of household assets at endline or midline (the fixed effects interaction specification provides weak evidence of a positive midline impact).<sup>124</sup>

Table 26: Effects of NSP on Household Assets

|                  | Endline     |         | Midline     |         |
|------------------|-------------|---------|-------------|---------|
|                  | Coefficient | p-Value | Coefficient | p-Value |
| Household Assets | 0.020       | 0.428   | 0.013       | 0.553   |

| Indicator                              | Ins. | Endline          | Midline           | Trend             | Obs.  |
|----------------------------------------|------|------------------|-------------------|-------------------|-------|
| Household Assets (Principal Component) | MH   | 0.031<br>[0.048] | 0.077<br>[0.047]  | 0.015<br>[0.043]  | 8,937 |
| Livestock Assets (Principal Component) | MH   | 0.031<br>[0.044] | -0.032<br>[0.043] | -0.033<br>[0.040] | 8,864 |

Note: Fixed effects interaction specification renders midline impacts on *Household Assets* significant at 10 percent.

### Borrowing for Food and Medical Needs (H13)

At midline, there is no evidence that NSP reduces the amount borrowed by households or the incidence of borrowing for food or medical needs. At endline, there is no evidence that NSP reduces the proportion of households which borrowed for food or medical needs,<sup>125</sup> although there is weak evidence that NSP reduces the amount that households borrow in general.<sup>126</sup>

Figure 74: Difference between Control and Treatment in Annual Borrowing at Endline

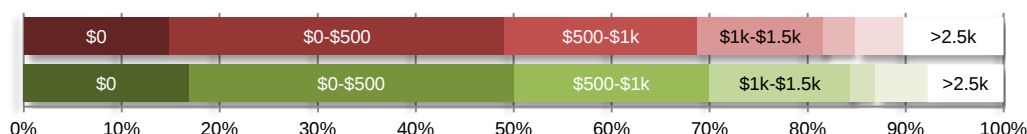
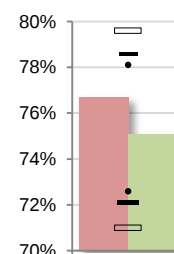


Figure 73: Borrowed for Food or Medical Needs (EL)



<sup>124</sup> The index of livestock assets is constructed using principal component analysis and consists of the following: oxen, cows, horses, donkeys, goats, sheep, chicken, and other poultry, and other animals. The index of household assets is similarly constructed and consists of the following: carpet, rug, radio, mobile telephone, television, satellite dish, wheelbarrow, motorbike, water pump, tractor, plow, and car

<sup>125</sup> At endline, the mean amount borrowed by sample households was \$977 and the median amount was \$500.

<sup>126</sup> Fixed effects interaction specification renders endline impact on amount borrowed significant at 5 percent (Section II of Appendix IV).

The results of the time trend indicate that, in control villages, the amount borrowed and the proportion of households which borrowed fell between 2009 and 2011.

Table 27: Effects of NSP on Borrowing for Food and Medical Needs

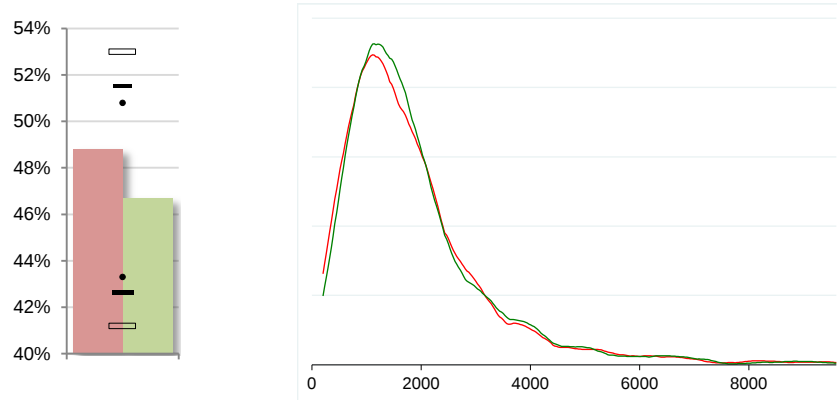
|                                              | Endline     |                    | Midline           |                      |       |
|----------------------------------------------|-------------|--------------------|-------------------|----------------------|-------|
|                                              | Coefficient | p-Value            | Coefficient       | p-Value              |       |
| Borrowing for Food and Medical Needs         | 0.056       | 0.168              | 0.009             | 0.721                |       |
| Indicator                                    | Ins.        | Endline            | Midline           | Trend                | Obs.  |
| Amount Borrowed in Past Year ( <i>ln</i> )   | MH          | -0.176*<br>[0.099] | -0.027<br>[0.063] | -0.684***<br>[0.095] | 8,106 |
| Borrowed for Food or Medical Needs Last Year | MH          | -0.014<br>[0.017]  | -0.003<br>[0.013] | -0.069***<br>[0.018] | 8,978 |

Note: Fixed effects interaction specification renders endline impacts on *Amount Borrowed* significant at 5 percent.

### Food Security (H14)

At midline, there is weak evidence that NSP increases daily caloric intake per household member,<sup>127</sup> but no evidence of impact on weekly food shortages. At endline, there is no evidence that NSP impacts caloric intake,<sup>128</sup> months per year households face food shortages, or the proportion of households that faced a food shortage at least once during the past week. The time trend indicates that caloric intake fell and weekly food shortages generally rose in control villages between 2009 and 2011.

Figure 75 – Difference between Control and Treatment Groups at Endline in Food Security  
Food Shortage Last Week      Density Plot of Caloric Intake per Day Per Household Member



Months Household Faced Food Shortage in Past Week

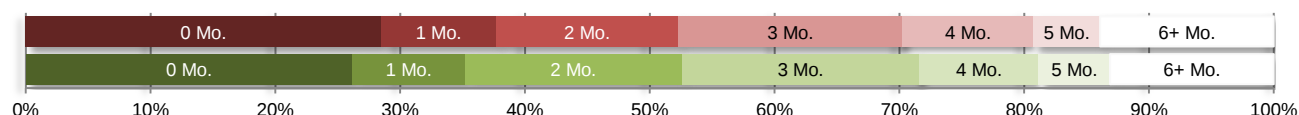


Table 28: Effects of NSP on Food Security

|                                                   | Endline     |                   | Midline           |                      |       |
|---------------------------------------------------|-------------|-------------------|-------------------|----------------------|-------|
|                                                   | Coefficient | p-Value           | Coefficient       | p-Value              |       |
| Food Security                                     | -0.004      | 0.831             | 0.016             | 0.282                |       |
| Indicator                                         | Ins.        | Endline           | Midline           | Trend                | Obs.  |
| Caloric Intake per Household Member ( <i>ln</i> ) | FH          | 0.008<br>[0.015]  | 0.024*<br>[0.014] | -0.075***<br>[0.018] | 8,035 |
| Months Household Faced Food Shortage              | FH          | 0.015<br>[0.103]  | -                 | -                    | 3,769 |
| Household Faced Food Shortage in Past Week        | FH          | -0.017<br>[0.023] | -0.003<br>[0.020] | 0.236***<br>[0.028]  | 7,977 |

Note: Fixed effects interaction specification renders midline impacts on *Caloric Intake* significant at 5 percent.

### II.iii. Production and Marketing

If effective, NSP-funded irrigation projects should increase land use, agricultural productivity and yields and NSP-funded transportation projects should increase the access of producers to markets and thereby increase sales

<sup>127</sup> Fixed effects interaction specification renders midline impacts significant at 5 percent.

<sup>128</sup> At endline, the mean daily intake per household member was 3,127 calories and the median was 2,788 calories.

revenue.<sup>129</sup> In addition, NSP-funded vocational training projects are designed to increase female villagers revenue from handicrafts sales. This section seeks to identify whether such impacts are realized.

Table 29: Test for Impact of NSP on Production & Marketing

|                                 | Endline      |              | Midline      |              |
|---------------------------------|--------------|--------------|--------------|--------------|
|                                 | Coefficient  | p-Value      | Coefficient  | p-Value      |
| <b>Production and Marketing</b> | <b>0.202</b> | <b>0.174</b> | <b>0.026</b> | <b>0.669</b> |
| Agricultural Productivity       | 0.411        | 0.163        | 0.034        | 0.773        |
| Non-Agricultural Productivity   | -0.007       | 0.843        | 0.018        | 0.358        |

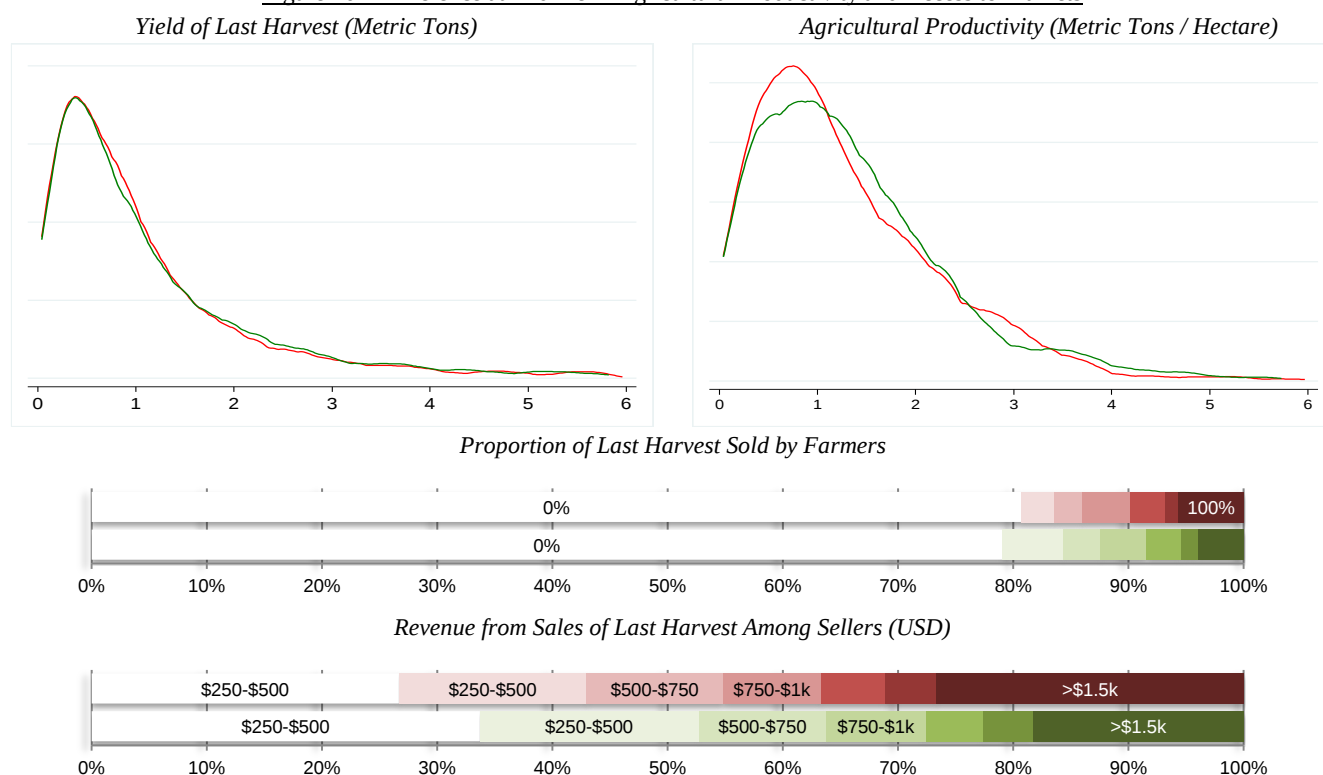
Note: Fixed effects interaction specification renders midline *Agricultural Productivity* estimate significant at 1 percent and endline *Non-Agricultural Productivity* estimate positive and significant at 5 percent.

There is no evidence that NSP impacts production and marketing outcomes. Of the constituent hypotheses, there is no evidence of impact on agricultural productivity and access to markets at either point,<sup>130</sup> nor is there any evidence of impact on non-agricultural productivity and access to markets.<sup>131</sup> Indicator-level results indicate that while NSP-funded projects potentially deliver some short-term benefits, these are not sustained beyond project completion.

### Agricultural Productivity and Access to Markets (H15)

At midline, there is evidence that NSP increases harvest revenue, but no other effects (the fixed effects interaction specification provides strong evidence of a 3 percentage point increase in harvest sales at midline). At endline, there is no evidence that NSP affects yields, productivity, harvest sales, or revenue.<sup>132</sup> The time trend indicates that, between 2009 and 2011, yields generally increased, while productivity fell.

Figure 76 – Difference at Endline in Agricultural Productivity and Access to Markets



<sup>129</sup> Barakat (2006) describes one village where, prior to NSP, farmers “could only grow 50 kg of wheat annually, but after the NSP protective wall and intake was constructed farmers . . . [were] able to grow 450 kg of wheat” and of another village where road improvements caused the cost of transportation to drop by a factor of five, allowing farmers to sell more produce.

<sup>130</sup> Fixed effects interaction specification provides strong evidence of a beneficial impact at midline.

<sup>131</sup> Fixed effects interaction specification provides evidence of a beneficial impact at endline.

<sup>132</sup> At endline, the mean yield across the sample is 1.33 mt and the median yield is 0.8 mt. The mean productivity is 1.50 mt / ha and the median productivity is 1.11 mt / ha. The average revenue was \$197. Among farmers who sold at least some harvest, the average revenue was \$986.

Table 30: Effects of NSP on Agricultural Productivity and Access to Markets

|                                                        |      | Endline           |                    | Midline              |         |
|--------------------------------------------------------|------|-------------------|--------------------|----------------------|---------|
|                                                        |      | Coefficient       | p-Value            | Coefficient          | p-Value |
| Agricultural Productivity and Access to Markets        |      | 0.411             | 0.163              | 0.034                | 0.773   |
| Indicator                                              | Ins. | Endline           | Midline            | Trend                | Obs.    |
| Yield of Most Recent Harvest [mt] ( <i>ln</i> )        | MH   | -0.007<br>[0.032] | -0.002<br>[0.028]  | 0.280***<br>[0.040]  | 6,011   |
| Productivity of Recent Harvest [mt / ha] ( <i>ln</i> ) | MH   | 0.013<br>[0.019]  | -0.014<br>[0.023]  | -0.231***<br>[0.026] | 4,527   |
| Proportion of Most Recent Harvest Sold                 | MH   | 0.476<br>[0.377]  | 0.044<br>[0.136]   | 0.044<br>[0.041]     | 4,460   |
| Revenue from Most Recent Harvest ( <i>ln</i> )         | MH   | 0.065<br>[0.104]  | 0.212**<br>[0.103] | 0.042<br>[0.113]     | 5,943   |

Note: Fixed effects interaction specification renders midline impacts on *Proportion of Harvest Sold* significant at 1 percent.

### Non-Agricultural Productivity and Access to Markets (H16)

At midline, there is weak evidence that NSP increases the proportion of households that sell handicrafts,<sup>133</sup> moderate evidence that NSP increases revenue from handicraft sales, but no evidence of impacts on sales or revenue. At endline, there is no evidence that NSP impacts sales of or revenue from handicrafts or animals or animal products. The time trend indicates that, between 2009 and 2011, handicraft revenue and from animal sales increased.

Table 31: Effects of NSP on Non-Agricultural Productivity and Access to Markets

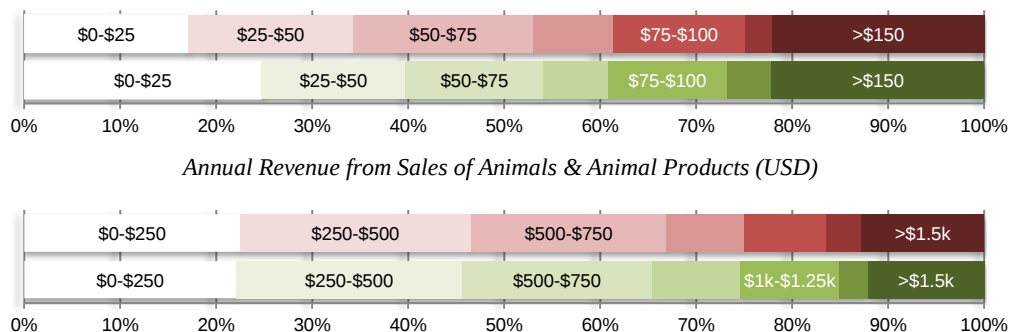
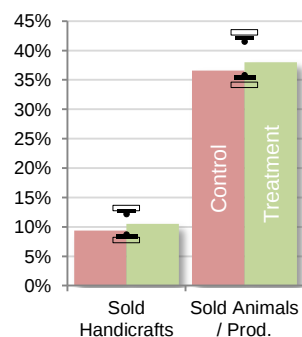
|                                                          |      | Endline           |                    | Midline             |         |
|----------------------------------------------------------|------|-------------------|--------------------|---------------------|---------|
|                                                          |      | Coefficient       | p-Value            | Coefficient         | p-Value |
| Non-Agricultural Prod. and Access to Markets             |      | -0.007            | 0.843              | 0.018               | 0.358   |
| Indicator                                                | Ins. | Endline           | Midline            | Trend               | Obs.    |
| Household Sold Handicrafts in Past Year                  | FH   | 0.011<br>[0.011]  | 0.017*<br>[0.009]  | -0.006<br>[0.011]   | 8,023   |
| Revenue from Handicraft Sales in Past Year ( <i>ln</i> ) | FH   | -0.124<br>[0.158] | 0.088**<br>[0.036] | 3.449***<br>[0.122] | 4,591   |
| Sold Animals / Animal Products Last Year                 | MH   | 0.021<br>[0.017]  | -0.002<br>[0.017]  | -0.021<br>[0.019]   | 8,954   |
| Revenue from Animals / Products Last Year ( <i>ln</i> )  | MH   | 0.009<br>[0.049]  | -0.026<br>[0.046]  | 0.278***<br>[0.051] | 3,393   |

Note: Fixed effects interaction specification renders midline impacts on *Household Sold Handicrafts* significant at 5 percent.

Figure 77 – Difference at Endline in Non-Agricultural Productivity and Access to Markets

Sales of Handicrafts & Animals

Annual Revenue from Sales of Handicrafts (USD)



### II.iv. Migration

In the event that NSP impacts economic outcomes, it may also impact migration behavior. The direction of the effect is, however, ambiguous. While better economic conditions in villages may reduce the financial incentive to migrate,

<sup>133</sup> Fixed effects interaction specification renders midline impacts significant at 5 percent.

economic stimuli may also relax financial constraints to migration. This section explores whether NSP has either of the effects on net migration levels.

Table 32: Test for Impact of NSP on Migration

|                                    | Endline     |         | Midline     |         |
|------------------------------------|-------------|---------|-------------|---------|
|                                    | Coefficient | p-Value | Coefficient | p-Value |
| <b>Migration</b>                   | 0.061       | 0.116   | 0.090       | 0.009   |
| Net Migration of Households        | 0.164       | 0.080   | 0.187       | 0.026   |
| Net Migration of Household Members | -0.036      | 0.161   | -           | -       |

Note: Baseline controls render the endline and midline Net Migration of Households estimates insignificant and significant at 10 percent, respectively.

There is some evidence that NSP affects migration behavior, particularly in the short-term. The results reported in Table 32 provide strong evidence at midline, but no evidence of endline impacts.<sup>134</sup>

### Net Migration of Households (H17)

At endline, there is weak evidence that NSP increases net household migration (that is, induces a reduction in the number of households moving out of a village and/or an increase in the number of households moving into a village). At midline, there is moderate evidence of the same effect.<sup>135</sup> However, both midline and endline results lose statistical significance if migration patterns at baseline are controlled for.<sup>136</sup>

Table 33: Effects of NSP on Net Migration of Households

|                             | Endline     |         | Midline     |         |
|-----------------------------|-------------|---------|-------------|---------|
|                             | Coefficient | p-Value | Coefficient | p-Value |
| Net Migration of Households | 0.164       | 0.080   | 0.187       | 0.026   |

| Indicator                   | Ins. | Endline           | Midline            | Trend             | Obs. |
|-----------------------------|------|-------------------|--------------------|-------------------|------|
| Net Migration of Households | MG   | 0.218*<br>[0.124] | 0.250**<br>[0.112] | -0.191<br>[0.120] | 873  |

Note: Midline and endline estimates are insignificant if baseline characteristics are controlled for. Fixed effects interaction specification renders midline impacts significant at 10 percent.

### Net Migration of Household Members (H18)

At endline, there is no evidence that NSP induces any changes in net within-household migration – that is, people moving out of the household or people moving into the household.

Table 34: Effects of NSP on Net Migration of Household Members

|                             | Endline     |         | Midline     |         |
|-----------------------------|-------------|---------|-------------|---------|
|                             | Coefficient | p-Value | Coefficient | p-Value |
| Net Migration of HH Members | -0.036      | 0.161   | -           | -       |

| Indicator                   | Ins. | Endline           | Midline | Trend | Obs.  |
|-----------------------------|------|-------------------|---------|-------|-------|
| Net Migration of HH Members | FH   | -0.019<br>[0.013] | -       | -     | 3,812 |

Figure 78 - Difference in Net HH Migration

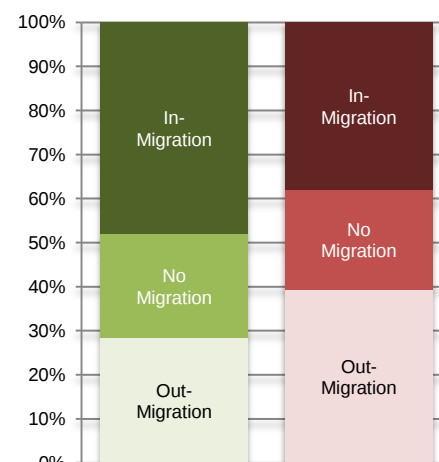
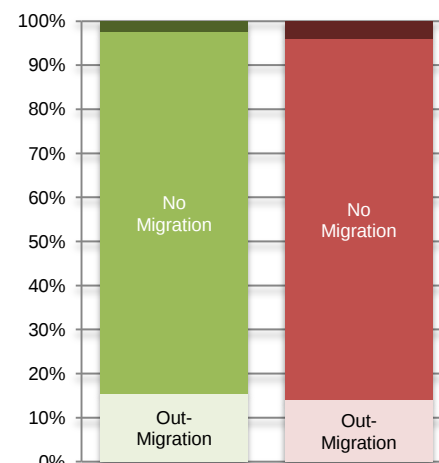


Figure 79 - Difference in Net HH Migration



<sup>134</sup> The latter result is driven, however, by the addition of the estimates of impact at the intra-household level, which are not present at midline. Fixed effects interaction specification provides evidence of a positive endline impact.

<sup>135</sup> Fixed effects interaction specification renders midline impacts significant at 10 percent.

<sup>136</sup> See Section II of Appendix II.

### III. Local Governance

NSP aims to build local governance structures centered on democratic processes and female participation. To this end, NSP creates gender-balanced Community Development Councils (CDCs) by secret-ballot, universal suffrage elections. CDCs are the only formal local government institutions,<sup>137</sup> although villages also possess *de facto* customary local governance structures that enjoy a high degree of legitimacy.<sup>138</sup>

NSP's impact on local governance will be conditioned by the composition of CDCs, the legitimacy of CDCs, and/or whether existing customary leaders change their behavior in response. If customary leaders do not capture CDCs and CDCs are accepted as legitimate local governance institutions, NSP should improve local governance by increasing local governance accountability. However, if CDCs are captured, NSP may improve local governance by introducing electoral accountability and thereby changing the behavior of existing leaders which covet CDC positions. Of course, if CDCs are not perceived as legitimate or if electoral accountability does not exist, the impact of NSP on local governance could well be muted.

There exists the possibility that NSP may worsen local governance outcomes by weakening institutional accountability and/or attracting malign actors. The creation of CDCs in parallel to customary institutions may undermine constraints on elite behavior through the diffusion of institutional responsibility across multiple authorities.<sup>139</sup> In addition, the appeal of NSP block grants to malign actors may induce an adverse composition effect by causing such actors to increase their local governance engagement in order to capture block grants.

NSP creates a channel for women to participate in local decision-making. This departs from customary norms, which discourage female participation in public affairs. If cultural constraints are binding, NSP will have limited impacts on the accountability of local governance structures to women. However, if CDCs facilitate meaningful female participation, the program may improve local governance outcomes for women.

This section presents estimates of NSP impacts on local governance quality and outlines mechanisms through which such effects occur.<sup>140</sup> The midline impacts describe the initial behavioral response of leaders and villagers to CDC creation, while endline impacts assess the durability of changes following project completion, at which point CDCs assume a more ambiguous role in local governance structures.

As reported in Table 35, NSP alters local governance outcomes at both midline and endline. At midline, CDC creation induces customary leaders to increase their activity and affiliate with representative assemblies, while boosting female representation, service provision, and participation. Impacts on female representation and female service provision prove durable, as does an increase in the regularity of assembly meetings. However, customary leaders revert to original affiliations and activity levels at endline, while increases in male participation recorded at midline fall off. There is also evidence that, at endline, NSP worsens how villagers perceive the quality of local governance.

Figure 80: Tribal Elders in Balkh District



Figure 81: Tribal Elders in Daulina



Figure 82: CDC Election in Daulina



<sup>137</sup> A 2006 by-law assigns CDCs a variety of development and project-related functions, as well as the responsibility to record demographic statistics, functions that were previously undertaken by village headmen and/or other customary leaders.

<sup>138</sup> *De facto* local governance structures generally consist of a hereditary headman, a *mullah* or other religious authority, and an informal council of tribal elders known as a *shura* or *jirga*. In areas affected by conflict, government or insurgent-aligned paramilitary commanders may supplement or dominate customary authorities. While variation exists (Pain & Kantor [2010]), authorities are generally hereditary, emphasize customary law over democratic principles, and exclude women from decision-making.

<sup>139</sup> For discussion of the constraints imposed by customary authorities in rural Afghanistan and how CDC creation may weaken these, see Brick (2008a). Persson, Roland, & Tabellini (1997) formalize how diffusion of institutional responsibility worsens governance outcomes.

<sup>140</sup> This section follows a framework outlined in Beath et al. (2010) and Beath (201). See the latter for further explication of the approach.

Table 35: Test for Aggregate Impact of NSP on Local Governance

|                           | Endline      |              | Midline      |              |
|---------------------------|--------------|--------------|--------------|--------------|
|                           | Coefficient  | p-Value      | Coefficient  | p-Value      |
| <b>Local Governance</b>   | <b>0.024</b> | <b>0.014</b> | <b>0.075</b> | <b>0.000</b> |
| Structure                 | 0.135        | 0.000        | 0.226        | 0.000        |
| Function                  | 0.038        | 0.014        | 0.074        | 0.000        |
| Quality and Participation | -0.016       | 0.245        | 0.033        | 0.004        |

Note: Fixed effects interaction specification renders the endline *Quality and Participation* estimates significant at 10 percent.

The impacts of NSP on local governance structures are concentrated in leader affiliation and female representation. At midline and endline, there is no evidence that NSP impacts the identity of *de facto* village leaders. While there is evidence that NSP increases leader affiliation with representative assemblies during project implementation, these affiliations recede by endline. However, NSP creates a durable channel for female representation that persists beyond project completion.

NSP induces an increase at midline in the general provision of key local governance services, the activity level of customary authorities, and the role served by representative assemblies in providing key local governance services. However, these impacts generally do not persist beyond project completion. CDCs do, though, remain active, with the impact on the activity level of representative assemblies persisting to endline. There is also strong evidence that NSP induces a durable increase in the provision of local governance services specific to women.

At midline, NSP increases participation in local governance, expressed desires to change village leader decisions, and increases demand for the involvement of representative assemblies in local governance. However, while the desire to change leader decisions persists, neither the effects on meeting attendance nor on demands for assembly involvement is durable. That the impact on villagers' desire for change persists while participation fades indicates the effect is driven more by increased dissatisfaction with local governance quality than by increased engagement. This view is supported by evidence that, at endline, NSP decreases satisfaction of villagers with their leadership and increases reports of elite misbehavior. The result appears not to be driven by dissatisfaction with NSP-funded projects *per se* given that adverse impacts are observed on perceptions of dispute mediation and resolution of local crimes, areas which generally lie outside CDC jurisdiction.

Finally, findings from the village benefit distribution analysis (VBDA) indicate that villages with CDCs have higher rates of embezzlement of food aid and lower participation, although the effect disappears when CDCs are mandated to manage aid distributions. This latter finding (combined with the finding that mandating female involvement increases embezzlement) indicates that local leaders react opportunistically to changes which create ambiguity in institutional accountability.

Given the findings of the endline survey and VBDA, accountability structures appear to be weakened by overlapping mandates between CDCs and customary institutions, inviting opportunistic behavior by local elites. Crucially, this effect is significant only at endline, once NSP-funded projects are complete and when greater ambiguity exists over the division of responsibilities between local authorities. In addition, the effect is not observed for tasks for which CDCs have designated responsibility, as indicated by the increases NSP induces in support for representative assemblies to manage projects and by the beneficial effects of mandating CDC management of the distribution in the VBDA.

The following sections present estimates of impact on local governance structure (III.i); local governance functions (III.ii), and quality of and participation in local governance (III.iii), with the final section (III.iv) describing VBDA results.

Figure 83: Tribal Elder in Balkh



Figure 84: Tribal Elder in Balkh



Figure 85: Tribal Elder in Balkh



### III.i. Structure

The creation of CDCs provides a mechanism by which NSP may affect the structure of local governance by introducing new individuals into the local leadership, affiliating leaders with representative assemblies, and increasing female representation. This section identifies these impacts.

Table 36: Test for Impact of NSP on Structure of Local Governance

|                                                                | Endline      |              | Midline      |              |
|----------------------------------------------------------------|--------------|--------------|--------------|--------------|
|                                                                | Coefficient  | p-Value      | Coefficient  | p-Value      |
| <b>Structure</b>                                               | <b>0.135</b> | <b>0.000</b> | <b>0.226</b> | <b>0.000</b> |
| Dynamism in Village Leadership                                 | 0.009        | 0.769        | 0.001        | 0.977        |
| Affiliation of Local Leadership with Representative Assemblies | 0.043        | 0.193        | 0.172        | 0.000        |
| Female Representation in Local Governance                      | 0.894        | 0.000        | 1.261        | 0.000        |

As reported in Table 36, there is strong evidence that NSP impacts the overall structure of local governance at both midline and endline. This impact occurs primarily through increasing female representation, an effect observed at midline and which persists beyond project completion. However, while there is strong evidence at midline that NSP increases leader affiliation with representative assemblies (such as CDCs, village councils, or the tribal eldership), leaders revert to customary affiliations following project completion, a result which implies that the institutional durability of CDCs is limited. Finally, there is no evidence at midline or endline of NSP impacts on the identity of decision-makers, indicating that CDCs do not impact the actual identity of *de facto* village leaders.

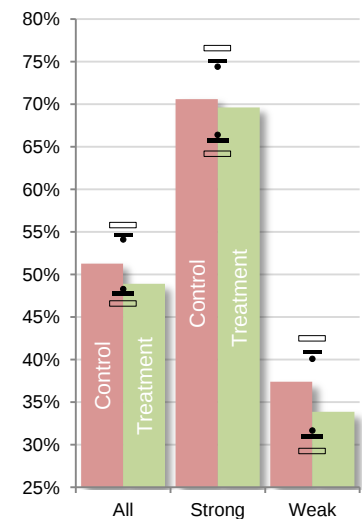
#### Dynamism in Village Leadership (H19)

To test whether NSP changes the identity of village leaders, we examine impacts on the probability that a village decision-maker identified by baseline MH respondents is re-identified by midline or endline MH respondents.<sup>141</sup> To determine whether there are differential impacts on strong and weak village leaders, the set of 2,914 decision-makers identified at baseline is partitioned into 1,798 “weak” decision-makers cited by less than four respondents and 1,116 “strong” decision makers cited by four or more.<sup>142</sup>

Table 37: Effects of NSP on Dynamism in Village Leadership

|                                      |      | Endline           |                   | Midline             |         |
|--------------------------------------|------|-------------------|-------------------|---------------------|---------|
|                                      |      | Coefficient       | p-Value           | Coefficient         | p-Value |
| Dynamism in Village Leadership       |      | 0.009             | 0.769             | 0.001               | 0.977   |
| Indicator                            | Ins. | Endline           | Midline           | Trend               | Obs.    |
| Village Decision-Maker Re-Identified | MH   | -0.001<br>[0.018] | -0.002<br>[0.017] | -0.030**<br>[0.013] | 6,046   |
| Strong Decision-Maker Re-Identified  | MH   | -0.002<br>[0.024] | 0.018<br>[0.025]  | -0.023<br>[0.019]   | 2,525   |
| Weak Decision-Maker Re-Identified    | MH   | -0.015<br>[0.026] | -0.023<br>[0.024] | -0.031*<br>[0.017]  | 3,521   |

Figure 86: Decision-Maker is Re-Identified (Endline)



NSP does not impact the probability of decision-makers being re-identified at midline or endline, regardless of whether the sample consists of all decision-makers, “strong” decision-makers, or “weak” decision-makers.<sup>143</sup>

#### Affiliation of Local Leadership with Representative Assemblies (H20)

Information on the primary titles or positions ascribed to identified decision-makers by MH and FH respondents is used to estimate the impact of NSP on whether leaders alternately affiliate with customary- or non-customary representative assemblies, such as CDCs, customary village councils, or the tribal eldership.

<sup>141</sup> For each decision-maker identified at baseline, we construct a dummy variable  $Continuity_{ij}$  that takes a value of one if a decision-maker  $i$  in village  $j$  is mentioned as one of the three most important village decision makers by at least one respondent in the midline survey, with the variable assuming zero otherwise. To identify the impact of NSP on continuity, the following regression is estimated:  $Continuity_i = \alpha + \beta \cdot NSP_j + \varepsilon_{ij}$ , where  $NSP_j$  is a dummy variable that equals one if village  $j$  is a treatment village and zero if it is a control village

<sup>142</sup> 50% of decision-makers, 70% of “strong” decision-makers, and 36% of “weak” decision-makers are re-identified at endline.

<sup>143</sup> The time trend indicates that there has been a large turnover in leaderships, with the effect concentrated among “weak” leaders.

Table 38: Effects of NSP Affiliation of Local Leadership with Representative Assemblies

|                                             | Endline     |                  | Midline             |                      |       |
|---------------------------------------------|-------------|------------------|---------------------|----------------------|-------|
|                                             | Coefficient | p-Value          | Coefficient         | p-Value              |       |
| Involvement of Assemblies                   | 0.043       | 0.193            | 0.172               | 0.000                |       |
| Indicator                                   | Ins.        | Endline          | Midline             | Trend                | Obs.  |
| 1° Decision-Maker is Elder / Council Member | FH          | 0.020<br>[0.021] | 0.051***<br>[0.019] | -0.119***<br>[0.023] | 7,734 |
| 1° Decision-Maker is Elder / Council Member | MH          | 0.023<br>[0.021] | 0.123***<br>[0.019] | -0.015<br>[0.018]    | 8,913 |

Note: Baseline augmented specification renders midline FH estimate significant at 5 percent.

At midline, there is strong evidence that NSP increases the probability that any given village leader is primarily affiliated with a representative assembly, with female and male villagers reporting a 5 and 12 percentage point increase, respectively.<sup>144</sup> At endline, however, there are no differences between treatment and control groups in the affiliation of village leaders with representative assemblies, either among male or female respondents.

### Female Representation in Local Assemblies (H21)

At midline, NSP induces a 54 percentage point increase in the proportion of villages which have at least one council with at least one female member, with a 38 percentage point increase at endline.

Table 39: Effects of NSP Female Representation in Local Assemblies

|                                           |      | Endline             |                     | Midline          |         |
|-------------------------------------------|------|---------------------|---------------------|------------------|---------|
|                                           |      | Coeff.              | p-Value             | Coeff.           | p-Value |
| Female Representation in Local Assemblies |      | 0.894               | 0.000               | 1.261            | 0.000   |
| Indicator                                 | Ins. | Endline             | Midline             | Trend            | Obs.    |
| Woman is Member of Council                | MH   | 0.382***<br>[0.034] | 0.538***<br>[0.036] | 0.014<br>[0.026] | 4,973   |

Figure 87: 1° Decision Maker is Elder / Council Member (EL)

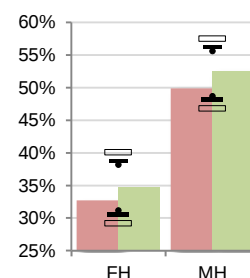
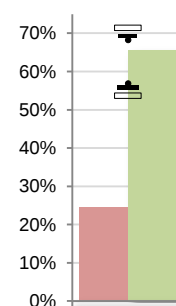


Figure 88: Female Members



### III.ii. Function

CDCs may also impact local governance by changing the behavior of existing local leaders vis-à-vis the provision of local governance services and/or by reassigning local governance functions from customary authorities to CDCs. In this section, we identify the impact of NSP on the types of local governance services provided to villagers, the engagement of customary and representative authorities in general local governance activity, and the division of responsibility among local institutions for the provision of key local governance services.

Table 40: Test for Impact of NSP on the Provision and Division of Local Governance Functions

| Function                                      | Endline      |              | Midline      |              |
|-----------------------------------------------|--------------|--------------|--------------|--------------|
|                                               | Coefficient  | p-Value      | Coefficient  | p-Value      |
|                                               | <b>0.038</b> | <b>0.014</b> | <b>0.074</b> | <b>0.000</b> |
| Provision of Local Governance Services        | 0.009        | 0.636        | 0.030        | 0.054        |
| Activity of Village Leadership & Institutions | 0.067        | 0.013        | 0.112        | 0.000        |
| Role of Representative Assemblies             | 0.022        | 0.376        | 0.061        | 0.002        |

Note: Fixed effects interaction specification renders midline *Provision of Local Governance Services* estimate significant at 5 percent.

The results in Table 40 provide strong evidence that NSP impacts the provision and division of local governance functions at midline and evidence of impact at endline. Among the constituent hypotheses, there is weak evidence at midline that NSP increases governance service provision,<sup>145</sup> but no evidence at endline; evidence that NSP increases leader activity levels at midline and endline; and strong evidence that NSP increases the role of representative assemblies at midline, but no evidence at endline. In general, the results show that the role of CDCs diminishes

<sup>144</sup> Baseline augmented specification renders midline FH indicator significant at 5 percent (see Section III of Appendix II).

<sup>145</sup> Fixed effects interaction specification provides evidence of midline impact (see Section I of Appendix V).

following project completion, but that there is a durable impact on the provision of local governance services, particularly for women.

### Provision of Local Governance Services (H22)

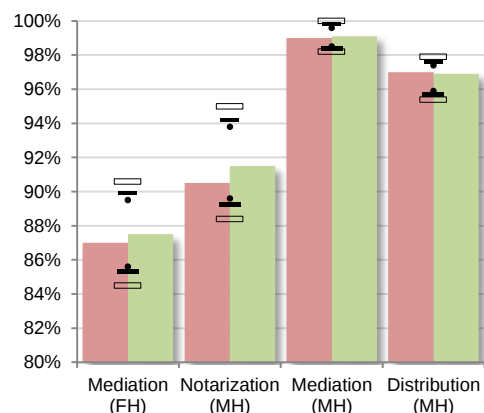
The impact of NSP on the provision of local governance services is identified by examining differences between control and treatment groups in whether villagers report that a local entity exists to provide the following services: dispute mediation for women; notarization of documents; dispute mediation; and distribution of food assistance.

Table 41: Effects of NSP on Provision of Local Governance Services

|                           | Endline |                   | Midline            |                     |       |
|---------------------------|---------|-------------------|--------------------|---------------------|-------|
|                           | Coeff.  | p-Value           | Coeff.             | p-Value             |       |
| Local Governance Services | 0.009   | 0.636             | 0.030              | 0.054               |       |
| Indicator                 | Ins.    | Endline           | Midline            | Trend               | Obs.  |
| Mediation for Women       | FH      | 0.006<br>[0.012]  | 0.020<br>[0.012]   | 0.000<br>[0.015]    | 8,032 |
| Notarization              | MH      | 0.012<br>[0.013]  | 0.034**<br>[0.013] | 0.104***<br>[0.016] | 8,984 |
| Dispute Mediation         | MH      | 0.001<br>[0.003]  | -0.003<br>[0.003]  | 0.001<br>[0.004]    | 8,984 |
| Distr. of Assistance      | MH      | -0.004<br>[0.005] | -                  | -                   | 4,321 |

Note: F.E. int. spec. renders midline impacts on *Mediation for Women* significant at 5 percent.

Figure 89: Service Provision at Endline



There is no evidence at midline or endline that NSP increases provision of dispute mediation services for men or women (the fixed effects interaction specification provides evidence of 2 percentage point increase at midline). At midline, there is evidence that NSP increases availability of notary services, but no evidence at endline. Finally, there is no evidence at endline that NSP impacts the availability of entities to distribute assistance provided to the village.

### Activity of Village Leaders and Institutions (H23)

The impact of NSP on the activity of individual village leaders is estimated by examining differences in the provision of governance services by the following local authorities (if present): village assembly (village council or tribal elders), headman, clergy, and commander. In addition, we examine impact on the regularity of village assembly meetings.

Table 42: Effects of NSP on Activity of Village Leaders and Institutions

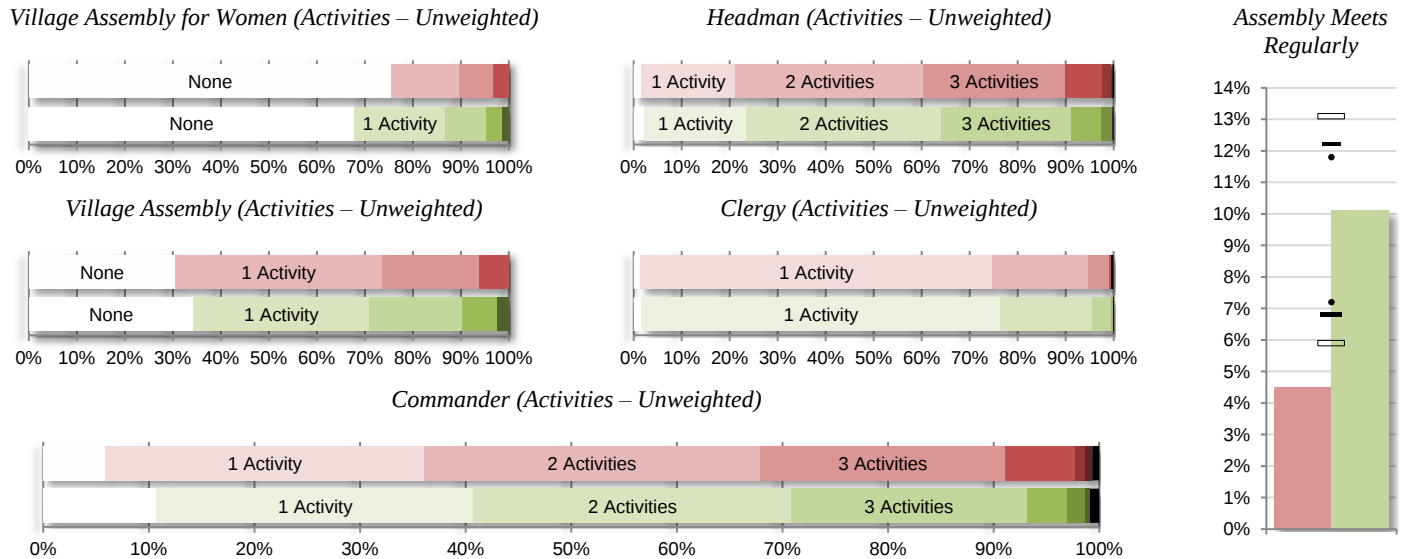
|                                                      | Endline     |                     | Midline             |                      |       |
|------------------------------------------------------|-------------|---------------------|---------------------|----------------------|-------|
|                                                      | Coefficient | p-Value             | Coefficient         | p-Value              |       |
| Activity of Village Leaders                          | 0.067       | 0.013               | 0.112               | 0.000                |       |
| Indicator                                            | Ins.        | Endline             | Midline             | Trend                | Obs.  |
| Services Provided for Women by Assembly <sup>η</sup> | FH          | 0.138***<br>[0.040] | 0.190***<br>[0.038] | -0.004<br>[0.046]    | 7,967 |
| Services Provided by Assembly <sup>ψ</sup>           | MH          | 0.115<br>[0.107]    | 0.360***<br>[0.108] | 0.143<br>[0.121]     | 8,920 |
| Services Provided by Headman <sup>ψ</sup>            | MH          | -0.269*<br>[0.155]  | 0.337**<br>[0.160]  | 0.479***<br>[0.180]  | 7,124 |
| Services Provided by Clergy <sup>ψ</sup>             | MH          | -0.118<br>[0.164]   | 0.069<br>[0.210]    | -0.834***<br>[0.224] | 8,350 |
| Services Provided by Commander <sup>ψ</sup>          | MH          | 1.293<br>[0.944]    | 2.328**<br>[1.043]  | 2.961***<br>[0.734]  | 981   |
| Village Assembly Meets Regularly                     | MH          | 0.050***<br>[0.014] | 0.173***<br>[0.017] | -0.049***<br>[0.013] | 8,794 |

Notes:  $\eta$ : represents an aggregation of z-scores of the following binary meta-categories of services provided to women during past year by village councils (excluding women's council), or in the absence of a village council, by tribal elders: establish laws; engage in local governance; resolve disputes / feuds; facilitate women's participation in decision-making; initiate, select, or manage projects or training courses for women; or other activities;  $\psi$ : represents an aggregation of z-scores of the following categories of services provided during past year: establish laws; promote good behavior; resolve disputes; certify documents; liaise with government; liaise with NGOs; manage projects; sermonize; protect village; and other.

Baseline augmented specification renders midline *Services Provided by Headman* estimate significant at 10 percent. Fixed effects interaction specification renders midline impacts on *Services Provided by Headman* insignificant and endline impacts significant at 5 percent.

At midline and endline, there is strong evidence that NSP increases service provision for women by village assemblies (village council or, if none exists, the tribal elders). There is also strong evidence at midline that NSP increases service provision for men by village assemblies, although no evidence at endline. At midline, there is evidence that NSP induces an increase in service provision by headmen (this is insignificant in the fixed effects interaction specification), but there is weak evidence of a negative impact at endline.<sup>146</sup> There is no evidence that NSP changes the activity of clergy. For commanders, there is evidence that NSP induces an increase in activity at midline, but no evidence of impact at endline. Finally, there is strong evidence at both midline and endline that NSP increases the probability, by 17 and 5 percentage points respectively, that village assemblies meet regularly.

**Figure 90: Differences between Activity of Village Leadership at Endline**



## Role of Representative Assemblies in Provision of Local Governance Services (H24)

The impact of NSP on the role of representative assemblies is assessed by examining variation in whether tribal elders and CDCs, village councils and/or their affiliates mediate disputes, notarize documents, and/or distribute aid.

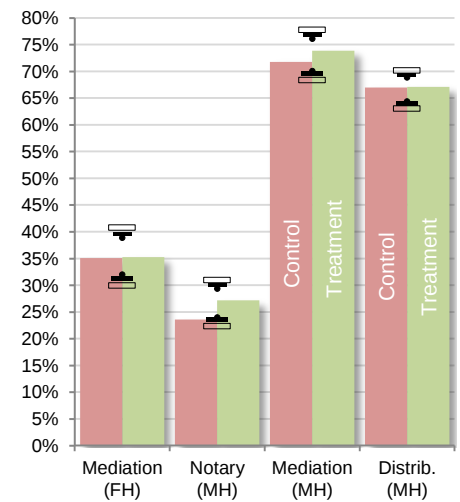
**Table 43: Effects of NSP on Role of Rep. Assemblies in Local Governance**

|                                       | Endline     |                   | Midline             |                      |       |
|---------------------------------------|-------------|-------------------|---------------------|----------------------|-------|
|                                       | Coefficient | p-Value           | Coefficient         | p-Value              |       |
| Involv. of Rep. Assemblies            | 0.022       | 0.376             | 0.061               | 0.002                |       |
| Indicator                             | Ins.        | Endline           | Midline             | Trend                | Obs.  |
| Mediator for Women is Elder / Council | FH          | 0.003<br>[0.021]  | 0.031**<br>[0.014]  | 0.349***<br>[0.023]  | 7,008 |
| Notarizer is Elder / Council          | MH          | 0.031*<br>[0.017] | 0.070***<br>[0.020] | -0.062***<br>[0.018] | 7,787 |
| Mediator is Elder / Council           | MH          | 0.013<br>[0.018]  | 0.008<br>[0.017]    | 0.041**<br>[0.021]   | 8,887 |
| Distributor of Aid is Elder / Council | MH          | -0.004<br>[0.014] | -                   | -                    | 4,202 |

Note: F.E. int. spec. renders endline impacts on *Notarizer is Elder / Council* significant at 1 percent.

At midline, there is evidence that NSP increases the involvement of representative assemblies in the mediation of disputes for women, although the effect does not persist. There is also strong evidence at midline and weak evidence at endline that NSP increases the involvement of assemblies in providing notary services.<sup>147</sup> There is no evidence that NSP changes the involvement of assemblies in dispute mediation for men or in distributing assistance.

**Figure 91: Involvement of Representative Assemblies in Local Governance (Endline)**



<sup>146</sup> Fixed effects interaction specification renders endline impacts significant at 5 percent (see Section III of Appendix IV).

<sup>147</sup> Fixed effects interaction specification renders endline impacts significant at 1 percent.

### III.iii. *Quality of Local Governance and Participation*

If the creation of CDCs through democratic processes empowers a more responsive cadre of local leaders or changes the behavior of existing leaders, NSP should improve local governance quality. However, the possibility also exists that NSP may induce the return of malign local actors,<sup>148</sup> or weaken constraints on elite behavior by diffusing institutional responsibility, either of which could worsen local governance outcomes. This section identifies how changes induced by NSP in the structure and function of local governance impact villagers, both through the quality of local governance services they receive and through how they interact with local governance institutions.

As reported in Table 44, there is strong evidence that NSP increases local governance quality and participation at midline, but no evidence of endline impact.<sup>149</sup> The positive effects of NSP on how villagers interact with local institutions are generally limited to the short-term. Of the constituent hypotheses, only participation in local governance (as proxied by meeting attendance and a desire to change leader decisions) is impacted at both midline and endline, with the latter impacts apparently driven more by increased desire to change leader decisions than by increased engagement. While there is evidence at midline that NSP increases demands for the involvement of representative assemblies in local governance, there is no evidence of endline impact. There is no evidence of impact at endline on expropriation by village leaders. Finally, while there is no impact at midline on perceptions of local governance quality, there is strong evidence of an adverse impact at endline. The finding that NSP worsens the perceived quality of local governance is consistent with the VBDA results. The most plausible explanation is that the creation of CDCs in parallel to customary institutions obfuscates institutional accountability and induces opportunistic behavior by local elites.<sup>150</sup>

Table 44: Test for Impact of NSP on Quality of and Participation in Local Governance

|                                            | Endline       |              | Midline      |              |
|--------------------------------------------|---------------|--------------|--------------|--------------|
|                                            | Coefficient   | p-Value      | Coefficient  | p-Value      |
| <b>Quality and Participation</b>           | <b>-0.016</b> | <b>0.245</b> | <b>0.033</b> | <b>0.004</b> |
| Participation in Local Governance          | 0.082         | 0.001        | 0.096        | 0.000        |
| Perceptions of Quality of Local Governance | -0.073        | 0.002        | 0.012        | 0.430        |
| Informal Taxation by Village Leaders       | -0.037        | 0.426        | -            | -            |
| Preferences for Representative Assemblies  | 0.031         | 0.149        | 0.045        | 0.029        |

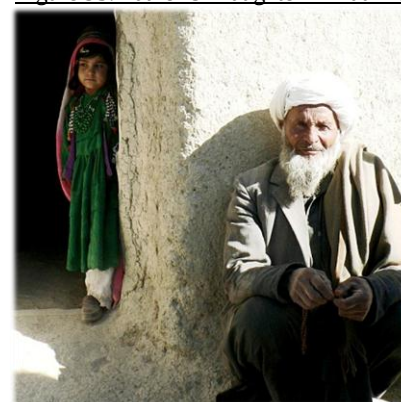
#### Participation in Local Governance (H25)

At midline, NSP increases the number of meetings of the village assembly attended by male villagers, although there is no evidence to indicate any durable impacts.

Figure 94: Male and Female CDC Members in Daulina



Figure 93: Father & Daughter in Daulina



<sup>148</sup> Brick (2008a) provides an account of a village where the headman was elected as CDC head, but as “the amount of money flowing into the village increased . . . local commanders . . . encouraged the [headman] to resign his position and bought two cars” using NSP funds (p. 38), while concluding that NSP has encouraged “the return of ‘roving bandits’ such as commanders” eager to access to block grants (p. 37).

<sup>149</sup> Fixed effects interaction specification provides weak evidence of a negative impact at endline (see Section II of Appendix V).

<sup>150</sup> See Beath, Christia & Enikolopov (2013) for further discussion.

Table 45: Effects of NSP on Participation in Local Governance

|                                     |      | Endline             |                     | Midline             |         |
|-------------------------------------|------|---------------------|---------------------|---------------------|---------|
|                                     |      | Coefficient         | p-Value             | Coefficient         | p-Value |
| Participation in Local Governance   |      | 0.082               | 0.001               | 0.096               | 0.000   |
| Indicator                           | Ins. | Endline             | Midline             | Trend               | Obs.    |
| Assembly Meetings Attended Annually | MH   | -0.013<br>[0.035]   | 0.103***<br>[0.034] | -0.079**<br>[0.032] | 8,731   |
| Desired Change in Leader Decision   | FH   | 0.011**<br>[0.004]  | 0.007*<br>[0.004]   | 0.008*<br>[0.005]   | 7,997   |
| Desired Change in Leader Decision   | MH   | 0.025***<br>[0.006] | 0.018***<br>[0.006] | -0.012**<br>[0.005] | 8,986   |

Note: Baseline augmented specification renders midline *Desired Change in Leader Decision* (FH) insignificant. Fixed effects interaction specification renders midline *Desired Change in Leader Decision* (FH) significant at 5 percent.

At midline, there is weak and strong evidence that NSP increases the propensity of female and male villagers respectively to express a desire to change a decision of their village leaders (which may indicate increased engagement among villagers and/or increased dissatisfaction).<sup>151</sup> At endline, there is also evidence that NSP increases male and female villagers' desire for change.<sup>152</sup> The estimated effect sizes are 2.5 and 1.1 percentage points, respectively.

Figure 96: Differences at Endline in Number of Meetings of the Village Assembly Attended Annually

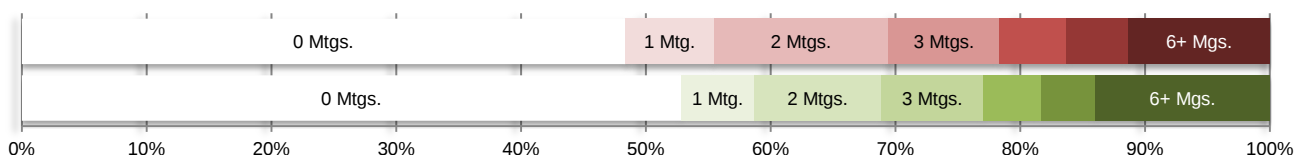
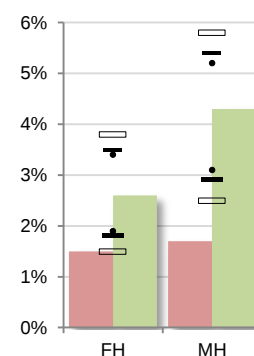


Figure 95: Desired Change in Decision (Endline)



## Perceptions of Quality of Local Governance (H26)

At midline, there is strong evidence that NSP induces a 9 percentage point increase in the proportion of female villagers who perceive that village leaders act in the interest of all villagers. There is also strong evidence at midline that NSP increases, by 5 percentage points, the proportion of female villagers who perceive that village leaders are at least somewhat responsive to women's needs.<sup>153</sup> At endline, there is no evidence that NSP alters beliefs among female villagers of whether village leaders act in the interest of all villagers (the fixed effects interaction specification provides weak evidence of a 3 percentage point decrease), nor in their perceptions of whether village leaders are responsive to women's needs (a weakly significant positive impact is observed with baseline controls). At midline and endline, there is no evidence of impact on the satisfaction of female villages with the work of their village leaders in the past year (the fixed effects interaction specification provides weak evidence of a 2 percentage point increase at midline) or whether female villagers disagreed with a decision or action of village leaders in the past year.<sup>154</sup>

At midline, there is no evidence that NSP changes whether male villagers perceive that either village leaders or headmen act in the interests of all villagers, nor is there any evidence that NSP impacts whether male villagers believe village leaders would distribute food aid to the neediest households or if male villagers are satisfied with the work of village leaders in the past year. There is, however, strong evidence at midline that NSP induces a 3 percentage point increase in male villagers who disagreed with a decision or action of the village leaders in the past year.

At endline, there is strong evidence that NSP induces a 6 percentage point decrease in whether male villagers perceive that village leaders act in the interests of all villagers, although there is no evidence of any change in perceptions of headmen (the fixed effects interaction specification provides weak evidence of a 2 percentage point decrease). There is weak evidence that NSP induces a 3 percentage point decrease in whether male villagers perceive that disputes are always resolved in an equitable manner and there is also evidence that NSP induces an 8 percentage point decrease in

<sup>151</sup> Baseline augmented specification renders midline FH indicator insignificant, but fixed effects interaction specification renders indicator significant at 5 percent.

<sup>152</sup> Baseline augmented specification renders endline FH indicator significant at 1 percent.

<sup>153</sup> Baseline augmented specification renders indicator significant at 5 percent level.

<sup>154</sup> Among those who disagreed with a decision or action of the village leaders, 77 percent complained of abuses of power in the form of embezzlement of aid or project materials, nepotism, capture of project benefits, intimidation or harassment of villagers. [Online Appendix A](#) provides a selection of transcriptions and translations of such complaints.

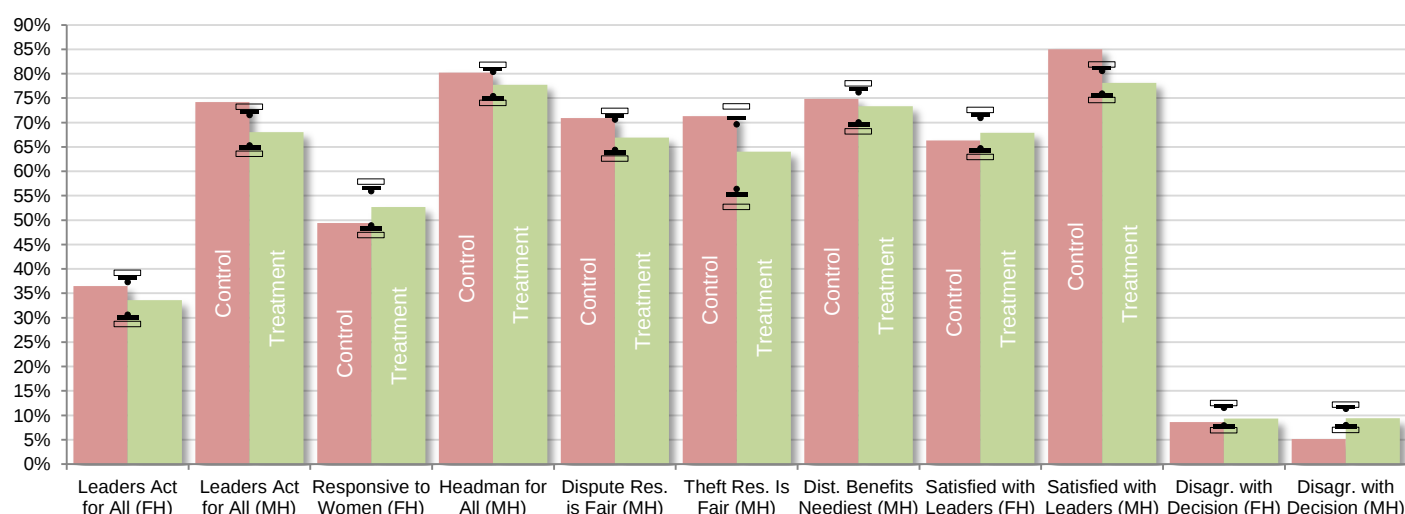
whether male villagers believe that minor crimes, such as theft, are resolved appropriately.<sup>155</sup> There is no evidence that, at endline, NSP changes whether male villagers believe that village leaders would distribute food aid to neediest households, although there is strong evidence that the program increases, by 5 percentage points, the proportion of male villagers who disagreed with a decision or action of the village leaders in the past year.<sup>156</sup>

**Table 46: Effects of NSP on Perceptions of Quality of Local Governance**

| Table 48: Effects of NSI on Perceptions of Quality of Local Governance |      |                      |                     |                      |         |
|------------------------------------------------------------------------|------|----------------------|---------------------|----------------------|---------|
|                                                                        |      | Endline              |                     | Midline              |         |
|                                                                        |      | Coefficient          | p-Value             | Coefficient          | p-Value |
| Perceptions of Quality of Local Governance                             |      | -0.073               | 0.002               | 0.012                | 0.430   |
| Indicator                                                              | Ins. | Endline              | Midline             | Trend                | Obs.    |
| Village Leaders Act in Interest of All                                 | FH   | -0.025<br>[0.020]    | 0.085***<br>[0.019] | -0.019<br>[0.020]    | 7,732   |
| Village Leaders Act in Interest of All                                 | MH   | -0.058***<br>[0.019] | -0.021<br>[0.017]   | -0.038*<br>[0.020]   | 8,906   |
| Village Leaders Responsive to Needs of Women                           | FH   | 0.030<br>[0.021]     | 0.054***<br>[0.019] | 0.004<br>[0.026]     | 8,021   |
| Headman Acts in Interest of All                                        | MH   | -0.023<br>[0.015]    | 0.008<br>[0.012]    | -0.029**<br>[0.014]  | 8,344   |
| Dispute Resolution Always Fair                                         | MH   | -0.034*<br>[0.019]   | -                   | -                    | 2,697   |
| Perceives that Theft Resolution is Always Fair                         | MH   | -0.083**<br>[0.040]  | -                   | -                    | 1,144   |
| Neediest Villagers Would Benefit from Aid                              | MH   | -0.017<br>[0.019]    | -0.016<br>[0.015]   | -0.014<br>[0.017]    | 8,870   |
| Satisfied with Village Leaders in Past Year                            | FH   | 0.015<br>[0.019]     | 0.025<br>[0.016]    | -0.065***<br>[0.024] | 7,891   |
| Satisfied with Village Leaders in Past Year                            | MH   | -0.067***<br>[0.014] | 0.012<br>[0.015]    | -0.014<br>[0.017]    | 8,534   |
| Disagreed with Leaders' Decision in Past Year                          | FH   | 0.011<br>[0.011]     | -0.001<br>[0.011]   | -0.021<br>[0.013]    | 7,792   |
| Disagreed with Leaders' Decision in Past Year                          | MH   | 0.045***<br>[0.010]  | 0.034***<br>[0.008] | 0.017**<br>[0.007]   | 8,986   |

*Note:* Baseline augmented specification renders endline *Village Leaders Responsive to Needs of Women* estimate significant at 10 percent. Fixed effects interaction specification renders *Village Leaders Act in Interest of All* (FH) estimate significant at 10 percent, endline impacts on *Headman Acts in Interest of All* significant at 10 percent, and midline impacts on FH *Satisfied with Village Leaders in Past Year* significant at 10 percent.

**Figure 97: Differences between Control and Treatment Groups at Endline in Perceptions of Quality of Local Governance**



<sup>155</sup> Baseline augmented specification renders indicator significant at 10 percent.

<sup>156</sup> The majority of complaints (78 percent) pertain to embezzlement of aid or project materials, nepotism, unfair aid distributions or capture of project benefits by village leaders [Online Appendix B](#) provides a selection of transcriptions and translations of such complaints.

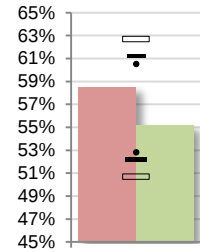
## Informal Taxation by Village Leaders (H27)

At endline, there is no evidence that NSP changes the proportion of farmers who, during the most recent harvest, paid informal agricultural taxes (*nisher / sarzamin*) to village leaders.

Table 47: Effects of NSP on Informal Taxation by Village Leaders

|                                         | Endline     |                   | Midline     |                 |       |
|-----------------------------------------|-------------|-------------------|-------------|-----------------|-------|
|                                         | Coefficient | <i>p</i> -Value   | Coefficient | <i>p</i> -Value |       |
| Informal Taxation by Village Leaders    | -0.037      | 0.426             | -           | -               |       |
| Indicator                               | Ins.        | Endline           | Midline     | Trend           | Obs.  |
| Agricultural Tax Paid to Village Leader | MH          | -0.018<br>[0.023] | -           | -               | 2,017 |

Figure 98: Tax by Village Leaders (EL)



## Preferences for Representative Assemblies to Provide Local Governance Services (H28)

There is no evidence at midline or endline that NSP impacts the proportion of male villagers who would prefer that a representative assembly function as the primary source of dispute resolution for villagers. There is also no evidence that NSP affects preferences for a representative assembly to liaise with government authorities regarding the village situation (the fixed effects interaction specification provides evidence of a 3 percentage point increase). There is strong evidence at midline and evidence at endline that NSP increases, by 4 and 3 percentage points respectively, the proportion of male villagers who would prefer that a representative assembly serve the role of selecting and managing village projects.<sup>157</sup> At midline, there is also evidence that NSP induces an increase in the proportion of female and male villagers who would recommend that a fellow villager aggrieved by an unjust dispute resolution seek recourse from a representative assembly, but no evidence of impact at endline.

Figure 99: Differences at Endline in Preference for Representative Assemblies

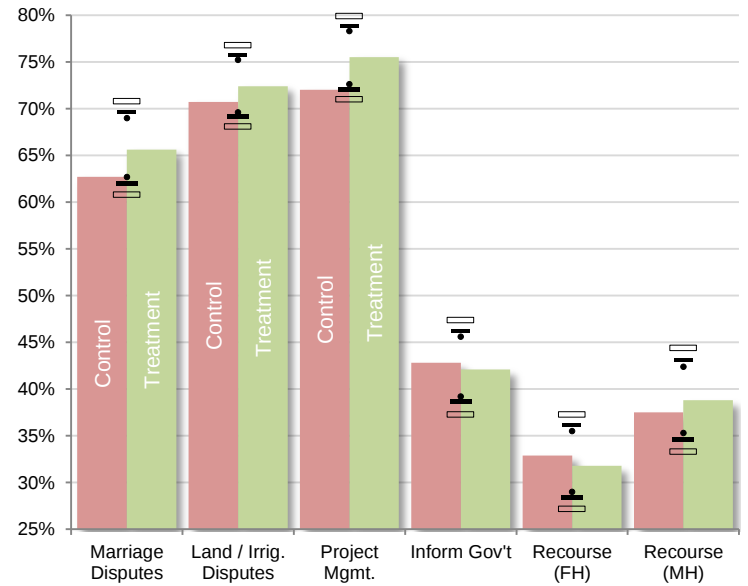


Table 48: Effects of NSP on Preference for Rep. Assemblies to Provide Local Governance Services

|                                                                                 |      | Endline            |                     | Midline              |         |
|---------------------------------------------------------------------------------|------|--------------------|---------------------|----------------------|---------|
|                                                                                 |      | Coefficient        | p-Value             | Coefficient          | p-Value |
| Preference for Representative Assemblies to Provide Services                    |      | 0.031              | 0.149               | 0.045                | 0.029   |
| Indicator                                                                       | Ins. | Endline            | Midline             | Trend                | Obs.    |
| Representative Assembly Should Resolve Marriage Disputes                        | MH   | 0.031<br>[0.019]   | -0.017<br>[0.019]   | 0.018<br>[0.023]     | 8,980   |
| Representative Assembly Should Resolve Land & Irrigation Disputes               | MH   | 0.017<br>[0.017]   | -0.014<br>[0.016]   | 0.046**<br>[0.019]   | 8,982   |
| Representative Assembly Should Select & Manage Projects                         | MH   | 0.034**<br>[0.017] | 0.043***<br>[0.016] | -0.065***<br>[0.022] | 8,962   |
| Representative Assembly Should Inform Government About Village Situation        | MH   | -0.004<br>[0.019]  | 0.023<br>[0.018]    | -0.039*<br>[0.021]   | 8,963   |
| Representative Assembly is Appropriate Recourse for Unjust Mediation of Dispute | FH   | -0.006<br>[0.020]  | 0.046**<br>[0.020]  | -0.015<br>[0.022]    | 7,556   |
| Representative Assembly is Appropriate Recourse for Unjust Mediation of Dispute | MH   | 0.014<br>[0.021]   | 0.051**<br>[0.020]  | -0.082***<br>[0.025] | 8,776   |

Note: Fixed effects interaction specification renders endline impacts on *Rep. Assembly Should Select & Manage Projects* significant at 10 percent and midline impacts on *Rep. Assembly Should Inform Gov't About Village Situation* significant at 5 percent.

<sup>157</sup> Fixed effects interaction specification renders endline impacts significant at 10 percent level.

### III.iv. Village Benefit Distribution Analysis (VBDA)<sup>158</sup>

To complement survey-based evidence, the VBDA was devised to yield behavioural measures of how CDCs impact local governance outputs. With the support of the UN's World Food Program, 720 metric tons of wheat was delivered to leaders in the 500 sample villages for re-distribution to vulnerable households. The VBDA produces five measures of leader behaviour: (i) quality of aid targeting, measured objectively; (ii) quality of aid targeting, measured subjectively; (iii) embezzlement; (iv) nepotism; and (v) participation in decision-making. To identify mechanisms by which CDCs affect local governance, randomized variation was induced in directives on how the distribution was to be managed. In half of treatment villages, the CDC was directed to manage the distribution, while in the other half, the *de facto* village leadership managed the distribution. In half of control villages, the distribution was managed by the *de facto* (and ordinarily male-dominated) village leadership, while women were directed to participate in the other half. By comparing outcomes in these four groups of villages, we isolate the effects of: (i) mandating female participation in control villages, (ii) mandating CDC management in treatment villages; and (iii) the presence of CDCs *per se*.<sup>159</sup>

The results, summarized in Table 49, show that mandating CDC management improves targeting measured by objective outcomes, but does not impact subjective targeting. Mandating female participation or the presence of CDCs *per se* has no impact on either measure relative to outcomes in control villages where customary leaders manage the distribution. While there are no differences in embezzlement of distributions managed by customary leaders in control villages and those managed by CDCs in treatment villages, embezzlement is increased by CDC presence *per se* and by female participation. There are no differences between the four groups of villages in the extent of nepotism. The quality of decision-making also is comparable in all groups of villages, except for treatment villages in which the CDC is not instructed to manage the distribution, in which decision-making is less participatory.

Table 49: Mean Effects Indices Summarizing Village Benefit Distribution Analysis Results

|                                    | Control with Female Involvement |         | Treatment w/out CDC Management |         | Treatment with CDC Management |         |
|------------------------------------|---------------------------------|---------|--------------------------------|---------|-------------------------------|---------|
|                                    | Coefficient                     | p-Value | Coefficient                    | p-Value | Coefficient                   | p-Value |
| Objective Targeting of Assistance  | 0.044                           | 0.242   | 0.001                          | 0.975   | 0.062                         | 0.095   |
| Subjective Targeting of Assistance | -0.013                          | 0.760   | -0.002                         | 0.967   | -0.003                        | 0.935   |
| Embezzlement by Village Leaders    | -0.105                          | 0.082   | -0.099                         | 0.084   | 0.008                         | 0.853   |
| Nepotism by Village Leaders        | -0.010                          | 0.812   | -0.022                         | 0.559   | 0.005                         | 0.887   |
| Participation in Decision-Making   | -0.015                          | 0.730   | -0.066                         | 0.099   | 0.046                         | 0.150   |

Note: The table reports mean effects coefficients and p-values for each of the five hypotheses tested. For further information on hypotheses tests and construction of mean effects indices for the experiment, see [Beath, Christia & Enikolopov \(2012a\)](#).

Distribution outcomes are optimal when, conditional on the existence of a CDC, CDCs manage the distribution and, conditional on the non-existence of a CDC, when women are not directed to participate. In the absence of such a mandate, CDC presence increases embezzlement and degrades decision-making quality. These findings support the theory that parallel institutions and the attendant dilution of institutional accountability worsens governance outcomes.<sup>160</sup> In this case, they indicate that the creation of CDCs can degrade governance quality unless the relationship between CDCs and established customary institutions is clearly defined.

Figure 100: Montage of VBDA Pilot Test in Balkh Province



<sup>158</sup> A full description of the VBDA results is provided in [Beath, Christia & Enikolopov \(2013\)](#).

<sup>159</sup> As with the midline and endline estimates, the VBDA utilized a pre-analysis plan (see [Beath, Christia & Enikolopov \(2012a\)](#)).

<sup>160</sup> See [Persson, Roland & Tabellini \(1997\)](#)

## IV. Political Attitudes and State-Building

The infusions of resources provided by NSP are, for most villages, historically unprecedented. Throughout Afghanistan's history, there has been little constructive interaction between the central government and the rural population, with previous state-building exercises inviting opposition and ultimate failure. As the primary vehicle by which the government engages with villages in the post-Taliban period, NSP thus serves an implicit state-building function in establishing the government as a benevolent provider of public goods.

NSP also implicitly seeks to increase support for democratic processes through exposing villagers to the use of secret-ballot elections to select local officials.<sup>161</sup> While the Afghan President and Parliament are democratically elected, village-level officials have rarely, if ever, been subject to formal elections. Accordingly, CDC elections have the potential to shape villagers' perceptions of democratic processes. In this section, we explore the midline and endline impacts of NSP on appreciation of democratic values, as well as perceptions of government, state legitimacy, and security.

As reported in Table 50, there is strong evidence that NSP improves political attitudes and state-building outcomes at both midline and endline. At the group-level, there is strong evidence at midline and endline that NSP positively impacts democratic values; strong evidence that NSP impacts state legitimacy and perceptions of government at midline, with evidence of an endline impact on both groups;<sup>162</sup> and weak evidence at midline and no evidence at endline of an impact on security.<sup>163</sup>

Figure 101: Tank Turret in Bamiyan



Table 50: Test for Aggregate Impact of NSP on Political Attitudes and State-Building

|                                               | Endline      |              | Midline      |              |
|-----------------------------------------------|--------------|--------------|--------------|--------------|
|                                               | Coefficient  | p-Value      | Coefficient  | p-Value      |
| <b>Political Attitudes and State-Building</b> | <b>0.038</b> | <b>0.001</b> | <b>0.049</b> | <b>0.000</b> |
| Democratic Values                             | 0.033        | 0.004        | 0.023        | 0.004        |
| State Legitimacy                              | 0.041        | 0.050        | 0.066        | 0.000        |
| Perceptions of Government                     | 0.038        | 0.051        | 0.063        | 0.000        |
| Security                                      | 0.042        | 0.126        | 0.041        | 0.091        |

Note: Baseline controls render endline *State Legitimacy* estimate significant at 10 percent and endline *Perceptions of Government* estimate significant at 5 percent. Fixed effects interaction specification renders endline *Perceptions of Government* estimate significant at 1 percent and endline *Security* estimates significant at 5 percent.

The impact of NSP on acceptance of democratic norms is concentrated in an increased preference among male villagers for the election of village headmen. NSP has no impact on preferences among female villagers for democratic elections or participatory decision-making procedures; on the proportion of male villagers who believe that the President or their provincial governor should be elected; on the proportion of male villagers who believe it appropriate to publicly discuss governance issues or who support the participatory resolution of major village issues. There is, however, strong evidence that NSP increased the proportion of both male and female villagers who voted in the 2010 parliamentary elections by an average of 6 and 4 percentage points, respectively, although there is no evidence that NSP has increased civic awareness among male or female villagers.

Despite the evidence that NSP increases government legitimacy generally at endline, there is no evidence of impact on individual indicators, which include views on whether the government should exercise jurisdiction over local crimes, set the school curriculum, issue ID cards, or collect income tax, as well as whether villagers prefer a centralized state or a weak federation or whether they identify primarily as Afghan or a member of a specific ethnic group. At midline,

<sup>161</sup> Former Minister of Finance Ashraf Ghani writes that “[t]he intent of [NSP] was to address the process of democratization from the ground level up, in parallel to the process of constitution making and rule writing at the center” (Ghani & Lockhart [2008]), p. 206 – 208.

<sup>162</sup> Baseline augmented specification provides weak evidence of endline impact on *State Legitimacy*. Both the baseline augmented specification and fixed effects interaction specification provide evidence and strong evidence respectively of endline impact on *Perceptions of Government* (see Section II of Appendix III and Section II of Appendix V).

<sup>163</sup> Fixed effects interaction specification provides evidence of endline impact on *Security*.

treatment villages experience an increase in linkages with government officials and representatives of the Afghan National Security Forces, although these effects are not durable.

NSP implementation induces a sharp improvement in how villagers perceive government and government-allied institutions. At midline, the President, members of Parliament, central government officials, government judges, district and provincial governors, NGO staff, and even ISAF soldiers all experience a boost of between 4 and 6 percentage points in the proportion of villages who report that their actions are consistent with the interests of all villagers. At endline, only the President, central government officials, and ISAF soldiers are perceived better, implying that the political benefits of NSP recede once project implementation is complete. This seems to imply that the continued provision of public goods is necessary to increase government legitimacy.

While NSP increases government legitimacy at midline, this effect does not translate into any reduction in the likelihood of villages suffering violent attacks either in the year preceding the midline survey or that preceding the endline survey, at least as reported by villagers. There is also no evidence that NSP affects the ability of insurgent groups to expropriate portions of farmers’ produce, as happens occasionally. However, there is evidence at midline that NSP improves perceptions of local security among male and female villagers, although only the effects for male villagers persist.

The following sections present estimates of the effects of NSP on democratic values (IV.i); state legitimacy (IV.ii); perceptions of government (IV.iii); and conflict (IV.iv).

Figure 102: Plain in Daulina District



IV.i. Democratic Values

The elections and participatory processes mandated by NSP contrast with customary decision-making processes in rural Afghanistan, which emphasize consensus among local political elites. This section identifies the extent to which NSP impacts acceptance of democratic norms, political knowledge, and participation in national elections.

Table 51: Test for Aggregate Impact of NSP on Democratic Values

|                                               | Endline      |              | Midline      |              |
|-----------------------------------------------|--------------|--------------|--------------|--------------|
|                                               | Coefficient  | p-Value      | Coefficient  | p-Value      |
| <b>Democratic Values</b>                      | <b>0.033</b> | <b>0.004</b> | <b>0.023</b> | <b>0.004</b> |
| Acceptance of Democratic Norms of Governance  | 0.022        | 0.076        | 0.033        | 0.001        |
| Electoral Participation / Political Knowledge | 0.054        | 0.014        | 0.004        | 0.801        |

As reported in Table 51, NSP increases appreciation of democratic values. Hypotheses tests provide strong evidence that, at both midline and endline, NSP increases acceptance of democratic norms of governance, although the effect appears to be channeled mainly through an increased preference for village headmen to be selected by secret-ballot elections.<sup>164</sup> While there is no evidence of an impact at midline or endline on political knowledge, NSP appears to have increased the proportion of both male and female villagers who voted in the 2010 parliamentary elections.<sup>165</sup>

Acceptance of Democratic Norms of Governance (H29)

At both midline and endline, there is strong evidence that NSP increases, by 5 and 7 percentage points respectively, the proportion of male villagers who believe that secret ballot elections are the most appropriate method by which headmen should be selected. The effect is noteworthy given that headmen ordinarily either are selected by other village leaders or inherit the position, with very few elected by villagers.<sup>166</sup> There is no evidence, however, at either midline or endline, that NSP affects female villagers’ views on whether headmen should be elected (the fixed effects

<sup>164</sup> This accords with the observation of Brick (2008a) that “the experience of participating in CDC elections encouraged community members to begin holding elections for their [headman] as well” (p. 48).  
<sup>165</sup> This finding accords with reports that NSP made it easier to explain electoral and voting concepts to villagers during voter registration for the 2004 national elections (Boesen (2004), p. 40).  
<sup>166</sup> At endline and across the sample, only 2 percent of male villagers report that their headman was selected by secret-ballot election.

interaction specification provides weak evidence of a 3 percentage point increase at endline and evidence of a 3 percentage point increase at midline).

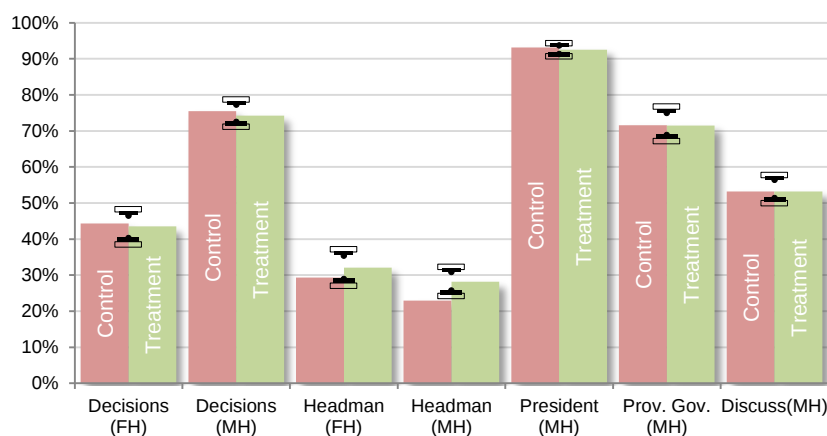
**Table 52: Effects of NSP on Democratic Norms of Governance**

|                                                | Endline     |                     | Midline             |                      |       |
|------------------------------------------------|-------------|---------------------|---------------------|----------------------|-------|
|                                                | Coefficient | p-Value             | Coefficient         | p-Value              |       |
| Acceptance of Democratic Norms of Governance   | 0.022       | 0.076               | 0.033               | 0.001                |       |
| Indicator                                      | Ins.        | Endline             | Midline             | Trend                | Obs.  |
| Prefers Important Decisions Made by Villagers  | FH          | -0.009<br>[0.019]   | -                   | -                    | 3,734 |
| Prefers Important Decisions Made by Villagers  | MH          | -0.006<br>[0.015]   | -                   | -                    | 4,321 |
| Prefers Election to Select Headman             | FH          | 0.029<br>[0.020]    | 0.028<br>[0.018]    | 0.035<br>[0.022]     | 7,218 |
| Prefers Election to Select Headman             | MH          | 0.054***<br>[0.016] | 0.073***<br>[0.016] | -0.061***<br>[0.018] | 8,874 |
| Prefers Election to Select President           | MH          | -0.006<br>[0.007]   | -                   | -                    | 4,288 |
| Prefers Election to Select Provincial Governor | MH          | 0.004<br>[0.018]    | 0.006<br>[0.016]    | -0.038*<br>[0.020]   | 8,608 |
| Appropriate to Discuss Governance Issues       | MH          | 0.007<br>[0.015]    | -                   | -                    | 4,298 |

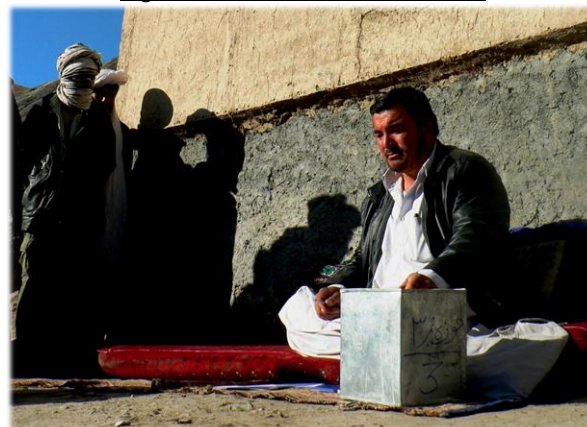
Note: Fixed effects interaction specification renders endline and midline impacts on *Prefers Election to Select Headman (FH)* significant at 5 and 10 percent, respectively.

There is no evidence that NSP has any impact, at midline or endline, on the proportion of male villagers who believe that provincial governors should be elected by residents of the province.<sup>167</sup> There is also no evidence at endline that NSP impacts the proportion of male or female villagers who believe that important decisions for the village should be made in a participatory manner by all villagers; the proportion of male villagers who believe that a secret-ballot election, as opposed to a traditional *Loya Jirga*, should be used to select the President of Afghanistan; or in the proportion who believe it is appropriate to discuss local governance issues in public.

**Figure 103: Differences at Endline in Acceptance of Democratic Norms**



**Figure 104: CDC Election in Daulina**



### Participation in National Elections and Political Knowledge (H30)

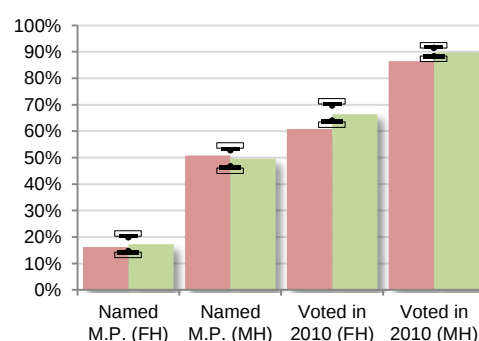
At midline and endline, there is no evidence that NSP impacts the proportion of female or male villagers who are cognizant of the name of at least one member of the delegation from their province to the *Wolesi Jirga* (lower house of the Afghan parliament). However, there is strong evidence at endline that NSP increased the proportion of male and female villagers who voted in the 2010 parliamentary elections. The effect sizes are estimated to be 6 and 4 percentage points, respectively.

<sup>167</sup> Currently, provincial governors are selected by the central government.

Table 53: Effects of NSP on Electoral Participation and Political Knowledge

|                                 | Endline     |                     | Midline          |                     |       |
|---------------------------------|-------------|---------------------|------------------|---------------------|-------|
|                                 | Coefficient | p-Value             | Coefficient      | p-Value             |       |
| Elec. Partic./ Political Knowl. | 0.054       | 0.014               | 0.004            | 0.801               |       |
| Indicator                       | Ins.        | Endline             | Midline          | Trend               | Obs.  |
| Named M.P. for Province         | FH          | 0.010<br>[0.016]    | 0.005<br>[0.011] | 0.147***<br>[0.017] | 7,994 |
| Named M.P. for Province         | MH          | -0.010<br>[0.019]   | 0.003<br>[0.018] | 0.054**<br>[0.023]  | 8,910 |
| Voted in 2010 Election          | FH          | 0.060***<br>[0.017] | -                | -                   | 3,754 |
| Voted in 2010 Election          | MH          | 0.035***<br>[0.010] | -                | -                   | 4,322 |

Figure 105: Political Knowledge &amp; Electoral Participation at Endline



#### IV.ii. State Legitimacy

Throughout the history of the Afghan state, the relationship between governments and the rural population has been limited. In this context, NSP potentially serves a state-building function. However, NSP's emphasis on secret-ballot elections and female participation contrast with customary norms and have the potential to create resentment. This section provides evidence on the impact of NSP on acceptance by villagers of central government authority and of the formation of durable links between villages and government representatives.

Table 54: Test for Aggregate Impact of NSP on State Legitimacy

|                                            | Endline      |              | Midline      |              |
|--------------------------------------------|--------------|--------------|--------------|--------------|
|                                            | Coefficient  | p-Value      | Coefficient  | p-Value      |
| <b>State Legitimacy</b>                    | <b>0.041</b> | <b>0.050</b> | <b>0.066</b> | <b>0.000</b> |
| Acceptance of Central Government Authority | 0.028        | 0.093        | 0.009        | 0.454        |
| Linkages between Villages and Government   | 0.071        | 0.245        | 0.201        | 0.000        |

Note: Fixed effects interaction specification renders endline *Acceptance of Central Government Authority* estimates significant at 1 percent and endline *Linkages between Villages and Government* significant at 5 percent.

There is strong evidence that NSP increases state legitimacy at midline and also evidence of endline impact. The midline result is driven primarily by increased visits by government officials and the Afghan National Security Forces to NSP villages. However, there is no evidence of durable impact on linkages between villages and the government.<sup>168</sup> At midline, there is no evidence that NSP makes villagers more accepting of government authority, although there is weak evidence of an impact at endline despite there being no significant differences in individual indicators.<sup>169</sup>

#### Acceptance of Central Government Authority (H31)

There is no evidence that NSP impacts the proportion of villagers who identify predominantly as Afghan, rather than as a member of an ethnic group; on whether male villagers prefer that the government (rather than local authorities) exercise jurisdiction of local crimes, whether the question is asked directly or indirectly (the fixed effects interaction specification provides weak evidence of a 3 percentage point positive impact for the indirect indicator and evidence of a 3 percentage point positive impact for the direct indicator);<sup>170</sup> on whether male villagers believe the government (rather than religious or tribal authorities) should set school curricula; on whether male villagers prefer centralized government to a federated state in which provinces manage their own affairs; on whether male villagers believe the government should issue mandatory national ID cards and require the registration of life events (the fixed effects interaction specification provides evidence a 1 percentage point positive impact); or on whether male villagers

Figure 106: Afghan National Police in Ghor



<sup>168</sup> The fixed effects interaction specification provides evidence of endline impact (see Section IV of Appendix IV).

<sup>169</sup> The fixed effects interaction specification provides strong evidence of endline impact on *Acceptance of Central Government Authority*.

<sup>170</sup> The indirect question asked MH respondents for their views on which authority should assume responsibility for punishing criminals. The direct question asked whether local authorities or the government should prosecute village crimes.

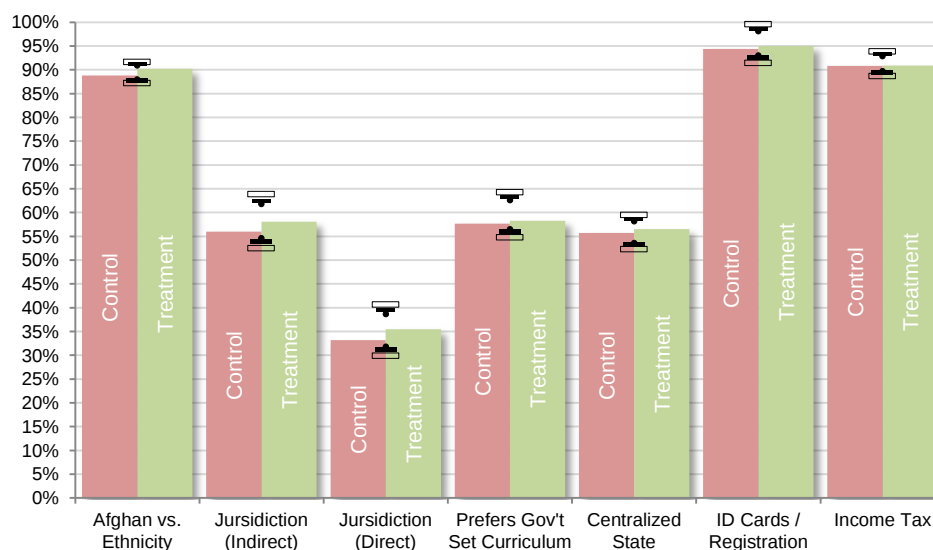
believe that income-earners should pay government taxation (the fixed effects interaction specification provides evidence of a 1 percentage point positive impact).

Table 55: Effects of NSP on Acceptance of Central Government Authority

|                                                 | Endline     |                  | Midline           |                      |       |
|-------------------------------------------------|-------------|------------------|-------------------|----------------------|-------|
|                                                 | Coefficient | p-Value          | Coefficient       | p-Value              |       |
| Acceptance of Central Government Authority      | 0.028       | 0.093            | 0.009             | 0.454                |       |
| Indicator                                       | Ins.        | Endline          | Midline           | Trend                | Obs.  |
| Identifies as Afghan, Not Ethnic Group          | MH          | 0.007<br>[0.009] | -                 | -                    | 4,312 |
| Gov’t Should Have Local Jurisdiction [Indirect] | MH          | 0.022<br>[0.022] | 0.020<br>[0.020]  | 0.050**<br>[0.025]   | 8,930 |
| Gov’t Should Have Local Jurisdiction [Direct]   | MH          | 0.021<br>[0.021] | 0.000<br>[0.019]  | -0.103***<br>[0.022] | 8,942 |
| Gov’t Should Set School Curriculum              | MH          | 0.019<br>[0.018] | -                 | -                    | 4,281 |
| Prefers Centralized Government to Federation    | MH          | 0.002<br>[0.014] | -                 | -                    | 4,215 |
| Prefers ID Cards / Registration of Life Events  | MH          | 0.012<br>[0.016] | -0.007<br>[0.016] | 0.049***<br>[0.019]  | 8,985 |
| Income Earners Should Pay Tax to Government     | MH          | 0.005<br>[0.010] | 0.014<br>[0.010]  | -0.002<br>[0.013]    | 8,867 |

Note: Fixed effects interaction specification renders endline impacts on *Gov't Should Have Local Jurisdiction [Indirect]* significant at 10 percent; endline impacts on *Gov't Should Have Local Jurisdiction [Direct]* significant at 5 percent; endline impacts on *Prefers ID Cards / Registration of Life Events* significant at 5 percent; and midline impacts on *Income Earners Should Pay Tax to Government* significant at 10 percent.

Figure 107: Differences between Control and Treatment Groups at Endline in Acceptance of Central Government Authority



### Linkages between Villages and Government (H32)

At both midline and endline, NSP does not affect the probability that a village has been visited in the past year by a representative of the district government. At midline, though, there is evidence to indicate that NSP induces a 9 percentage point increase in the probability of villages being visited by central government officials and a 5 percentage point increase in the probability of villages being visited by the Afghan National Security Forces (ANSF), although the effect is weak for the latter entity (and insignificant in the fixed effects interaction specification). At endline, there is no evidence of impact on the probability of villages being visited by either entity.

Figure 108: Villagers in Daulina

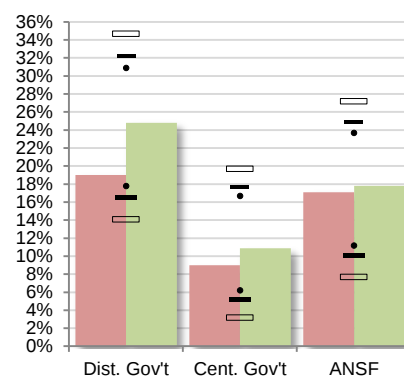


Table 56: Effects of NSP on Linkages between Village and Government

|                                   | Endline     |                  | Midline             |                   |      |
|-----------------------------------|-------------|------------------|---------------------|-------------------|------|
|                                   | Coefficient | <i>p</i> -Value  | Coefficient         | <i>p</i> -Value   |      |
| Linkages btw. Villages & Gov't    | 0.071       | 0.245            | 0.201               | 0.000             |      |
| Indicator                         | Ins.        | Endline          | Midline             | Trend             | Obs. |
| Village Visited by District Gov't | MG          | 0.054<br>[0.040] | 0.046<br>[0.038]    | -0.055<br>[0.046] | 882  |
| Village Visited by Central Gov't  | MG          | 0.024<br>[0.032] | 0.093***<br>[0.025] | 0.028<br>[0.029]  | 882  |
| Village Visited by ANSF           | MG          | 0.004<br>[0.038] | 0.053*<br>[0.031]   | 0.060<br>[0.039]  | 882  |

Note: Fixed effects interaction specification renders midline impact on *Village Visited by ANSF* insignificant.

Figure 109: Village is Visited (Endline)



#### IV.iii. Perceptions of Government

As alluded to in Section IV.ii above, an implicit goal of NSP is to improve villagers' perceptions of government. However, the effect may be limited if villages perceive the program as being delivered by the NGOs that serve as FPs, rather than by the government. In addition, there also exists the possibility that the mandating of secret-ballot elections and female participation may create resentment. To resolve this ambiguity, this section provides empirical evidence of the impacts of NSP on perceptions of central and sub-national government and government-allied actors.

Table 57: Test for Impact of NSP on Perceptions of Government

|                                         | Endline      |              | Midline      |              |
|-----------------------------------------|--------------|--------------|--------------|--------------|
|                                         | Coefficient  | p-Value      | Coefficient  | p-Value      |
| <b>Perceptions of Government</b>        | <b>0.038</b> | <b>0.051</b> | <b>0.063</b> | <b>0.000</b> |
| Perceptions of Central Government       | 0.036        | 0.080        | 0.051        | 0.000        |
| Perceptions of Sub-National Government  | 0.050        | 0.147        | 0.120        | 0.000        |
| Perceptions of Government-Allied Actors | 0.034        | 0.102        | 0.058        | 0.005        |

Note: Fixed effects interaction specification renders endline impacts on *Perceptions of Central Government*, *Perceptions of Sub-National Government*, and *Perceptions of Government-Allied Actors* significant at 5, 1, and 5 percent, respectively.

NSP has a sharp but somewhat fleeting impact on perceptions of central and sub-national government and government-allied actors, with strong evidence of impact on all at midline. At endline, there is only weak evidence on impact on perceptions of central government officials and no evidence of impact on the other categories.<sup>171</sup> Such results indicate that NSP is generally perceived as 'government-owned' and that NSP policies do not generate resentment towards government. However, the concentration of impacts on government perceptions during project implementation indicates that government legitimacy is determined more by service delivery and capacity building, rather than development outcomes *per se*.

#### Perceptions of Central Government (H33)

At midline, there is strong evidence that NSP increases the proportion of male villagers who believe that the President (5 percentage points), Members of Parliament (6 percentage points), central government officials (5 percentage points), and government judges (6 percentage points) act in the interests of all villagers, as opposed to only some villagers or in their own interests. There is no impact at midline on perceptions of Afghan National Police officers.

At endline, the President and central government officials experience a boost to their perceptions,<sup>172</sup> but there are no impacts for Members of Parliament, government judges (the fixed effects interaction specification provides evidence of a 3 percentage point increase), Afghan National Police officers, or Afghan National Army soldiers. NSP also has no significant impact of the proportion of male or female villagers who report, at endline, that living standards have greatly improved since 2002.

<sup>171</sup> Fixed effects interaction specification provides evidence of endline impact on *Perceptions of Central Government*, strong evidence of endline impact on *Sub-National Government*, and evidence of endline impact on *Perceptions of Government-Allied Actors*.

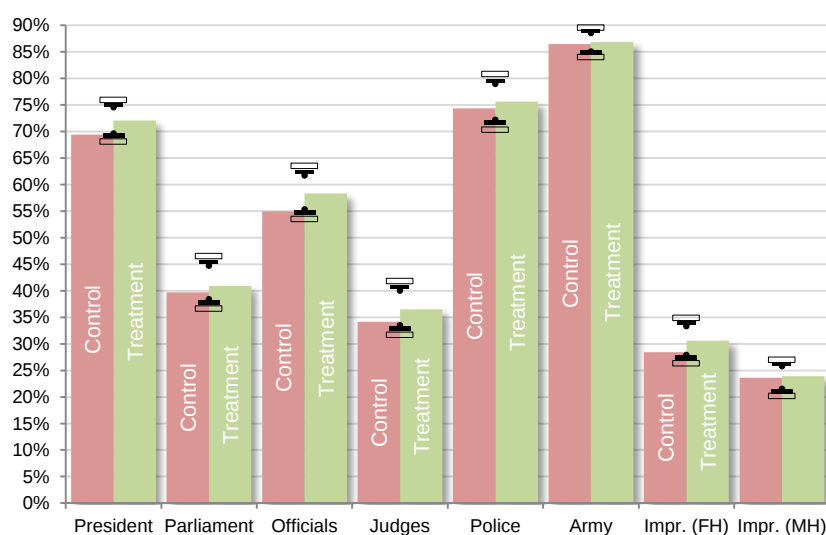
<sup>172</sup> Fixed effects interaction specification renders endline impacts on *President Acts for All* significant at 5 percent and on *Central Gov't Officials Act for All* significant at 1 percent.

Table 58: Effects of NSP on Perceptions of Central Government

|                                            |      | Endline           |                     | Midline              |         |
|--------------------------------------------|------|-------------------|---------------------|----------------------|---------|
|                                            |      | Coefficient       | p-Value             | Coefficient          | p-Value |
| Perceptions of Central Government          |      | 0.036             | 0.080               | 0.051                | 0.000   |
| Indicator                                  | Ins. | Endline           | Midline             | Trend                | Obs.    |
| President Acts for All                     | MH   | 0.026*<br>[0.015] | 0.045***<br>[0.015] | -0.059***<br>[0.018] | 8,655   |
| Members of Parliament Act for All          | MH   | 0.019<br>[0.019]  | 0.061***<br>[0.018] | -0.102***<br>[0.023] | 8,605   |
| Central Gov't Officials Act for All        | MH   | 0.036*<br>[0.019] | 0.052***<br>[0.019] | -0.085***<br>[0.021] | 8,268   |
| Government Judges Act for All              | MH   | 0.027<br>[0.020]  | 0.057***<br>[0.020] | -0.117***<br>[0.022] | 8,645   |
| Police Acts for All                        | MH   | 0.013<br>[0.020]  | -0.013<br>[0.019]   | 0.523***<br>[0.026]  | 8,836   |
| Afghan National Army Acts for All          | MH   | 0.004<br>[0.011]  | -                   | -                    | 4,221   |
| Situation Improved Greatly in Last 9 Years | FH   | 0.022<br>[0.016]  | -                   | -                    | 3,724   |
| Situation Improved Greatly in Last 9 Years | MH   | 0.000<br>[0.013]  | -                   | -                    | 4,312   |

Note: Fixed effects interaction specification renders endline impact on *President Acts for All* significant at 5 percent; endline impact on *Central Gov't Officials Act for All* significant at 1 percent; and endline impact on *Government Judges Act for All* significant at 5 percent.

Figure 110: Differences between Control and Treatment Groups at Endline in Perceptions of Central Government



### Perceptions of Sub-National Government (H34)

At midline, there is strong evidence that NSP induces a 6 percentage point increase in the proportion of male villagers who believe the district governor and provincial governor act in the interests of all villagers. At endline, however, there is no evidence of such impacts (the fixed effects interaction specification provides strong evidence of a 3 percentage point increase in the proportion of male respondents indicating that the district governor acts for all and evidence of a 3 percent of a 3 percentage point increase in the proportion of male respondents indicating that the province governor acts for all).

Figure 111: Area School in Daulina

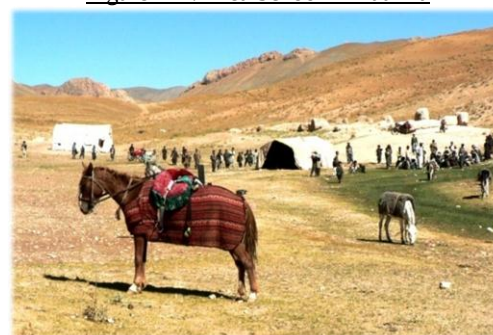
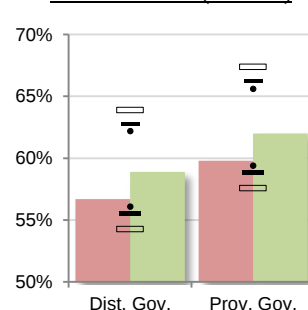


Table 59: Effects of NSP on Perceptions of Sub-National Government

|                                   | Endline     |                  | Midline             |                    |       |
|-----------------------------------|-------------|------------------|---------------------|--------------------|-------|
|                                   | Coefficient | p-Value          | Coefficient         | p-Value            |       |
| Perceptions of Sub-National Gov't | 0.050       | 0.147            | 0.120               | 0.000              |       |
| Indicator                         | Ins.        | Endline          | Midline             | Trend              | Obs.  |
| District Governor Acts for All    | MH          | 0.024<br>[0.018] | 0.062***<br>[0.017] | -0.016<br>[0.021]  | 8,499 |
| Province Governor Acts for All    | MH          | 0.027<br>[0.019] | 0.059***<br>[0.018] | -0.039*<br>[0.021] | 8,115 |

Note: Fixed effects interaction specification renders endline impacts on *District Governor Acts for All* significant at 1 percent and *Province Governor Acts for All* significant at 5 percent.

Figure 112: Perceptions of Sub-National Gov't (Endline)



### Perceptions of Government-Allied Actors (H35)

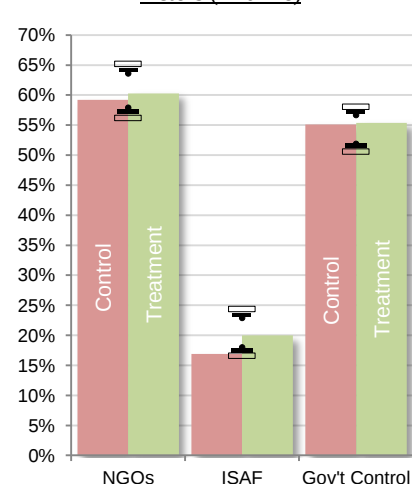
At midline, there is strong evidence and evidence that NSP improves perceptions of NGO officials (5 percentage points) and ISAF soldiers (4 percentage points), respectively.

At endline, however, NGOs are no better perceived as a result of the program and there is no evidence of any impact on the proportion of villagers who believe that the government will be able to exert full control over the district once foreign forces depart in 2014. However, there is evidence that NSP induces a durable improvement in perceptions of ISAF soldiers (4 percentage points).

Table 60: Effects of NSP on Perceptions of Government-Allied Actors

|                                    |      | Endline            |                     | Midline              |         |
|------------------------------------|------|--------------------|---------------------|----------------------|---------|
|                                    |      | Coefficient        | p-Value             | Coefficient          | p-Value |
| Perceptions of Gov't-Allied Actors |      | 0.034              | 0.102               | 0.058                | 0.005   |
| Indicator                          | Ins. | Endline            | Midline             | Trend                | Obs.    |
| NGO Staff for All                  | MH   | 0.015<br>[0.017]   | 0.046***<br>[0.017] | -0.047**<br>[0.020]  | 8,676   |
| ISAF Soldiers Act for All          | MH   | 0.036**<br>[0.015] | 0.035**<br>[0.017]  | -0.092***<br>[0.020] | 7,949   |
| Gov't Control after 2014           | MH   | -0.008<br>[0.015]  | -                   | -                    | 3,858   |

Figure 113: Perceptions of Government-Allied Actors (Endline)



### IV.iv. Security

As exemplified by the U.S. Army's *Counterinsurgency Field Manual*, there has been interest in recent years in whether development projects can reduce insurgent violence by improving perceptions of the government. This has invited speculation on whether NSP, as a government program covering almost all of rural Afghanistan, might weaken the Taliban insurgency.<sup>173</sup> This section presents empirical evidence on the extent to which NSP affects violent incidents, informal taxation by insurgent groups, and perceptions of local security.

Table 61: Test for Impact of NSP on Security

|                                       | Endline      |              | Midline      |              |
|---------------------------------------|--------------|--------------|--------------|--------------|
|                                       | Coefficient  | p-Value      | Coefficient  | p-Value      |
| <b>Conflict</b>                       | <b>0.042</b> | <b>0.126</b> | <b>0.041</b> | <b>0.091</b> |
| Violent Incidents                     | 0.042        | 0.495        | 0.023        | 0.665        |
| Informal Taxation by Insurgent Groups | -0.042       | 0.266        | -            | -            |
| Perceptions of Local Security         | 0.045        | 0.168        | 0.061        | 0.030        |

Note: Fixed effects interaction specification renders endline impacts on *Violent Incidents* significant at 10 percent and midline impacts.

<sup>173</sup> A 2009 [policy brief](#) by the Center for a New American Security, for example, recommended increased funding for NSP as a means to improve security, while a 2007 *Washington Monthly* [article](#) trumpeted NSP-funded projects as “the schools the Taliban won’t torch”. For further discussion of the impact of NSP on counter-insurgency outcomes, see [Beath, Christia & Enikolopov \(2012d\)](#)

There is weak evidence that NSP improves security at midline, but no evidence of an endline effect. At midline and endline, there is no evidence that NSP affects reports on violent incidents.<sup>174</sup> However, there is evidence at midline of improvements in perceptions of local security, although no evidence at endline. Finally, there is no evidence that NSP affects on expropriation of agricultural produce by insurgent groups.

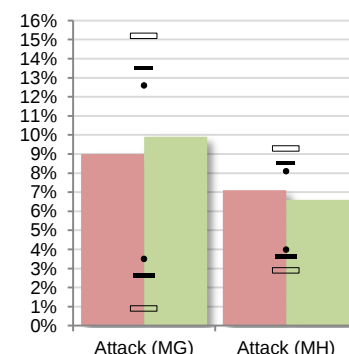
### Violent Incidents (H36)

There are no significant differences between treatment and control groups in reports, either by MG or MH respondents, that villages have been deliberately or inadvertently targeted by government forces, foreign forces, insurgents or other aggressors.

Table 62: Effects of NSP on Violent Incidents

|                               |      | Endline           |                   | Midline            |         |
|-------------------------------|------|-------------------|-------------------|--------------------|---------|
|                               |      | Coefficient       | p-Value           | Coefficient        | p-Value |
| Violent Incidents             |      | 0.042             | 0.495             | 0.023              | 0.665   |
| Indicator                     | Ins. | Endline           | Midline           | Trend              | Obs.    |
| Village Attacked in Past Year | MG   | -0.010<br>[0.027] | -0.003<br>[0.021] | 0.052*<br>[0.027]  | 881     |
| Village Attacked in Past Year | MH   | -0.010<br>[0.012] | -0.008<br>[0.010] | 0.032**<br>[0.013] | 8,984   |

Figure 114: Attack Reports (Endline)



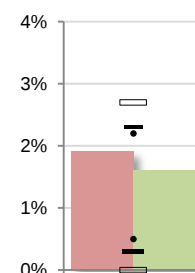
### Informal Taxation by Insurgent Groups (H37)

At endline, there is no evidence that NSP induces any change in the proportion of farmers who, during the most recent harvest season, paid agricultural taxes to insurgents.

Table 63: Effects of NSP on Informal Taxation by Insurgent Groups

|                             |      | Endline           |         | Midline     |         |
|-----------------------------|------|-------------------|---------|-------------|---------|
|                             |      | Coefficient       | p-Value | Coefficient | p-Value |
| Informal Tax by Insurgents  |      | -0.042            | 0.266   | -           | -       |
| Indicator                   | Ins. | Endline           | Midline | Trend       | Obs.    |
| Tax Paid to Insurgent Group | MH   | -0.006<br>[0.005] | -       | -           | 2,017   |

Figure 115: Tax by Insurgents (EL)



### Perceptions of Local Security (H38)

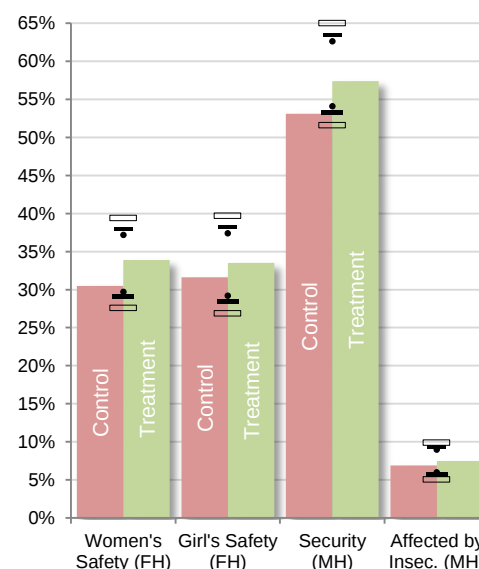
At midline, NSP induces a 5 percentage point increase in the proportion of female villagers who report improvements during the past two years in the safety of women working for NGOs or attending literacy or training courses.

Table 64: Effects of NSP on Participation in Perceptions of Local Security

|                               |      | Endline            |                    | Midline              |         |
|-------------------------------|------|--------------------|--------------------|----------------------|---------|
|                               |      | Coefficient        | p-Value            | Coefficient          | p-Value |
| Perceptions of Local Security |      | 0.045              | 0.168              | 0.061                | 0.030   |
| Indicator                     | Ins. | Endline            | Midline            | Trend                | Obs.    |
| Safety of Women Improved      | FH   | 0.030<br>[0.023]   | 0.045**<br>[0.020] | 0.018<br>[0.025]     | 7,963   |
| Safety of Girls Improved      | FH   | 0.017<br>[0.025]   | 0.038*<br>[0.020]  | 0.037<br>[0.027]     | 7,301   |
| Security Improved             | MH   | 0.052**<br>[0.026] | 0.046**<br>[0.022] | -0.087***<br>[0.028] | 8,962   |
| Impacted by Insecurity        | MH   | 0.006<br>[0.009]   | 0.005<br>[0.008]   | 0.033***<br>[0.011]  | 8,972   |

Note: Safety of Girls Improved at midline is significant at 5 percent with baseline controls and in the fixed effects interaction specification.

Figure 116: Perceptions of Security (Endline)



<sup>174</sup> Fixed effects interaction specification provides weak evidence of beneficial endline impacts on *Violent Incidents*.

There is weak evidence that NSP increases, by 4 percentage points, the proportion of women who, at midline, report an improvement during the past two years in the safety of girls attending school or socializing in the village.<sup>175</sup> While there is no evidence at midline that NSP changes the proportion of male villagers who have been personally impacted by insecurity in the past year, there is evidence of a 5 percentage point increase in the proportion of male villagers who believe that security in the local area has improved in the past year.

At endline, there is no evidence that NSP impacts the safety of women working for NGOs or attending courses or of girls attending school or socializing in the village. However, while there is again no impact on the proportion of male villagers who report being personally affected by insecurity around the village, there is evidence that NSP induces a durable 5 percentage point increase in reports by male villagers that security has improved during the past two years.

Figure 117: War-Ravaged Village in Gulran District



Figure 118: Village in Daulina

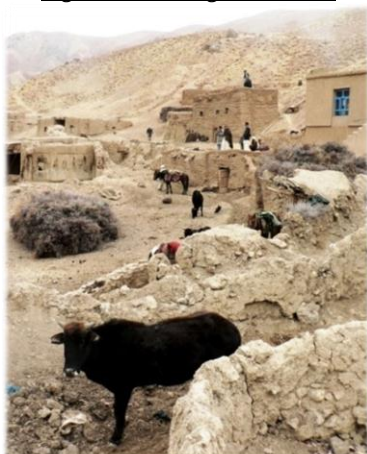


Figure 119: Woman and Child in Ghor



Figure 120: Boy in Daulina



Figure 121 – Village in Gulran



Figure 122: Morning in Ghor



<sup>175</sup> The impact on safety of girls is significant at 5 percent with baseline controls and in the fixed effects interaction specification

## V. Social Norms

As is common in CDD programs, NSP incorporates participatory practices and, in so doing, aims to improve social cohesion within villages. Quantitative studies in other contexts provide mixed evidence of the impact of CDD programs on social capital.<sup>176</sup> Qualitative research on NSP generally observes a positive impact of the program on community cohesion, although some studies also note cases of contention over NSP-related decisions.<sup>177</sup> This section sheds empirical light on this question by exploring the impact of NSP on the incidence and resolution of intra-village disputes and on levels of interpersonal trust among villagers.

Figure 123: Hazara Children in Balkh



Table 65: Test for Aggregate Impact of NSP on Social Norms

|                                  | Endline      |              | Midline      |              |
|----------------------------------|--------------|--------------|--------------|--------------|
|                                  | Coefficient  | p-Value      | Coefficient  | p-Value      |
| <b>Social Norms</b>              | <b>0.029</b> | <b>0.000</b> | <b>0.027</b> | <b>0.000</b> |
| Social Cohesion                  | 0.007        | 0.695        | -0.005       | 0.778        |
| Literacy & Computational Ability | -0.001       | 0.966        | 0.057        | 0.003        |
| Happiness                        | 0.035        | 0.113        | 0.022        | 0.284        |
| Gender Attitudes                 | 0.037        | 0.000        | 0.016        | 0.010        |
| Gender Outcomes                  | 0.034        | 0.012        | 0.046        | 0.000        |

Note: Baseline augmented specification and fixed effects interaction specification render endline *Happiness* estimates significant at 10 and 5 percent, respectively.

In addition to building community cohesion, NSP also seeks to empower villagers by providing them – through the CDC - with new capabilities in project management and decision-making, and – through NSP-funded courses – with improved basic skills. Qualitative research suggests NSP has been successful not just in imparting basic skills, but also imbuing villagers with a newfound confidence and inquisitiveness.<sup>178</sup> Either by this self-actualization, or the more prosaic fulfillment of basic needs, NSP may increase happiness among villagers. This section explores the impact of NSP on basic computational and reading abilities, as well as on reported levels of happiness.

Given the cultural constraints particular to rural Afghanistan, a key feature of NSP are provisions to ensure female participation, which include universal suffrage; gender-balanced CDCs; and a requirement that at least one project per village be prioritized by women. While some accounts exist of NSP encountering opposition due to these provisions,<sup>179</sup> qualitative research generally reports that NSP increases the role of women in local governance through demonstrating the capabilities of female villagers and by providing women with a platform to engage male villagers, while also increasing women's intra-village mobility and role in household decision-making and.<sup>180</sup> This section explores the impact of NSP on such gender attitudes and outcomes.

Figure 124: Family in Daulina



<sup>176</sup> See, for instance, the contrasting results of Casey, Glennerster & Miguel (2011b) and Fearon, Humphreys & Weinstein (2008)

<sup>177</sup> Brick (2008a), Barakat (2006), and Echavez (2010)

<sup>178</sup> Echavez (2010)

<sup>179</sup> Kakar (2005) reports that, in some villages, mandated “women’s participation [caused] the rejection of the NSP . . . on the grounds that it meant the NSP was a Communist programme.”

<sup>180</sup> Azarbaijani-Moghaddam (2010), Barakat (2006), Boesen (2004), and Echavez (2010)

As reported in Table 65, there is strong evidence that NSP changes social norms at both midline and endline. There is particularly strong evidence that NSP positively impacts gender attitudes and outcomes and also strong evidence of an impact on the literacy and computational ability of villagers at midline. However, there is no evidence that NSP impacts the literacy and computational ability of villagers beyond project completion. There is also no evidence that NSP has an impact at midline or endline on social cohesion or the general happiness of villagers.

In line with observations that the public resource decisions inherent in NSP can sometimes aggravate existing divisions within communities, we find weak evidence that, during the phase of project implementation, the program increases the incidence of disputes and feuds, while reducing resolutions rates. Once projects are completed, however, there is weak evidence that NSP slightly reduces intra-village disputes.

At both midline and endline, there is some evidence that NSP has a beneficial overall effect on interpersonal trust among villagers. At midline, there is evidence of a general effect and, while this disappears at endline, there is evidence of a lasting increase in levels of interpersonal trust among male villagers. Generally, however, these specific shifts appear to be slight and we accordingly find no overall evidence to indicate either a midline or endline impact of NSP on social cohesion.

NSP improves basic literacy and computational skills of villagers during project implementation, which may stem either from the benefits of courses specifically or from CDC activities generally. These impacts, however, do not prove to be durable. NSP also appears to have no general impacts on the happiness of villagers.<sup>181</sup> However, while no specific impacts are apparent for male villagers, there is weak evidence at both midline and endline to indicate an impact of NSP in reducing unhappiness among female villagers, which may be caused by increased availability of counseling services for women, increased female participation in local governance, and/or increased access of women to basic utilities and services.

There is evidence of a positive effect of NSP on attitudes of villagers to gender roles at both midline and endline. The program has a durable impact in increasing the acceptance of male villagers to female participation in local governance, although there is little evidence that NSP changes attitudes towards broader economic or social participation, including the education of girls. There is strong evidence that NSP increases female involvement in local governance, but no evidence of lasting impacts on the intra-village mobility of women, regularity of female socialization, or female participation in economic activity or household decision-making. NSP does, however, produce a durable increase in the ability of women to travel beyond their village.

The following sections present estimates of the impacts of NSP on social cohesion (V.i); literacy and computational ability (V.ii); happiness (V.iii); gender attitudes (V.iv); and gender outcomes (V.v).

#### V.i. Social Cohesion

NSP employs participatory processes designed to engage villagers throughout the project cycle, a feature which potentially builds social cohesion within villages. However, competition over block grants may also represent a source of contention that undermines social stability.<sup>182</sup> In this section, we explore impacts of NSP on interpersonal trust and the incidence of intra-village disputes.

Figure 125: Dispute at CDC Election in Daulina



Figure 126: Girl & Baby in Daulina



<sup>181</sup> The baseline augmented and fixed effects interaction specifications provide weak evidence and evidence of a beneficial general effect on *Happiness* at endline. See Section II of Appendix III and Section II of Appendix V for full results.

<sup>182</sup> Brick (2008a), p. 28. See also Barakat (2006), p. 111. Echavez (2011) describes how the selection of beneficiaries tailoring project created division among village women.

There is no evidence of a general effect of NSP on social cohesion at midline or endline. At midline, however, the lack of statistical significance on the general effect masks two opposing effects on indicators. Specifically, there is weak evidence that NSP increases the incidence of disputes and reduces resolution rates,<sup>183</sup> but also evidence that NSP increases interpersonal trust. Both of these effects, however, become insignificant at endline.<sup>184</sup>

**Table 66: Test for Aggregate Impact of NSP on Social Cohesion**

|                             | Endline      |              | Midline       |              |
|-----------------------------|--------------|--------------|---------------|--------------|
|                             | Coefficient  | p-Value      | Coefficient   | p-Value      |
| <b>Social Cohesion</b>      | <b>0.007</b> | <b>0.695</b> | <b>-0.005</b> | <b>0.778</b> |
| Disputes & Resolution Rates | -0.009       | 0.800        | -0.060        | 0.096        |
| Interpersonal Trust         | 0.018        | 0.363        | 0.032         | 0.044        |

Note: Baseline augmented specification and fixed effects interaction specification render midline *Disputes & Resolution Rates* estimate significant at 5 percent. Fixed effects interaction specification render endline *Interpersonal Trust* estimate significant at 10 percent.

### Intra-Village Disputes and Resolution Rates (H39)

At midline, there is no evidence from male household or male focus group respondents that NSP affects the incidence of intra-village disputes or the probability of disputes being successfully resolved. NSP also has no impact on the incidence of intra-village feuds (the baseline augmented and fixed effects interaction specifications provide weak evidence that NSP increases the incidence of intra-village feuds by 2 and 1 percentage points, respectively).<sup>185</sup>

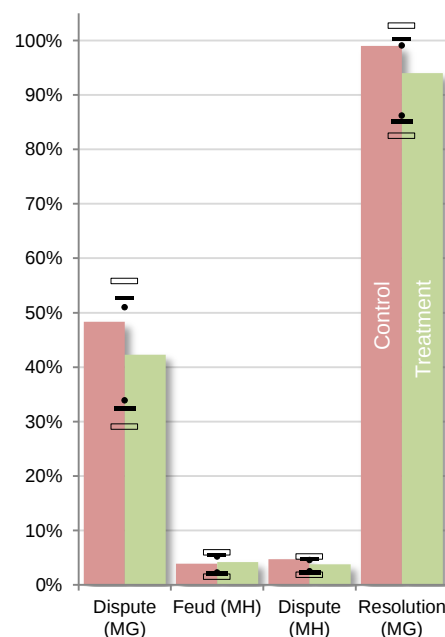
At endline, there is weak evidence that NSP induces a 1 percentage point reduction in the probability of a villager engaging in a dispute with another villager,<sup>186</sup> although there is no evidence that NSP affects the number of annual intra-village disputes reported by village leaders, the incidence of intra-village feuds, or the rate at which disputes are resolved.

**Table 67: Effects of NSP on Intra-Village Disputes and Resolution Rates**

|                          | Endline     |                    | Midline           |                   |       |
|--------------------------|-------------|--------------------|-------------------|-------------------|-------|
|                          | Coefficient | p-Value            | Coefficient       | p-Value           |       |
| Disputes and Mediation   | -0.009      | 0.800              | -0.060            | 0.096             |       |
| Indicator                | Ins.        | Endline            | Midline           | Trend             | Obs.  |
| Dispute Last Year        | MG          | -0.058<br>[0.052]  | 0.049<br>[0.046]  | 0.076<br>[0.057]  | 881   |
| Feud in Past 2 Years     | MH          | -0.002<br>[0.009]  | 0.013<br>[0.008]  | 0.010<br>[0.008]  | 8,974 |
| Personal Disp. Last Year | MH          | -0.011*<br>[0.006] | -0.006<br>[0.006] | -0.009<br>[0.007] | 8,982 |
| Resolution of Disputes   | MG          | -0.064<br>[0.039]  | -0.034<br>[0.048] | 0.040<br>[0.037]  | 379   |

Note: Baseline controls and the fixed effects interaction specification indicate that the midline *Feuds in Past 2 Years* estimate is positive and significant at 10 percent. Fixed effects interaction specification renders endline impacts on *Personal Disp. Last Year* significant at 5 percent.

**Figure 127: Disputes and Mediation (Endline)**



### Interpersonal Trust (H40)

There is no evidence at midline that NSP affects whether male villagers would be willing to ask a fellow villager to collect money or whether they have actually done so recently or whether male villagers believe that villagers are always willing to help each other (the fixed effects interaction specification provides weak evidence of a 3 percentage point positive impact) or had donated money or agricultural produce to charity or to needy villagers in the past year. There is also no evidence that NSP impacts levels of interpersonal trust among female respondents at midline, as measured by either of the two indicators (the addition of baseline controls or the fixed effects interaction specification provide

<sup>183</sup> The baseline augmented and fixed effects interaction specifications provide evidence of the respective effects at midline. See Section I of Appendix III and Section I of Appendix V for full results.

<sup>184</sup> Fixed effects interaction specification provides weak evidence of a beneficial effect on *Interpersonal Trust* at endline.

<sup>185</sup> See Section V in Appendix II for baseline controls and Section V in Appendix IV for fixed effects interaction specification.

<sup>186</sup> Fixed effects interaction specification renders endline impacts on *Personal Dispute Last Year* significant at 5 percent.

evidence of a 5 and 3 percentage point positive impacts, respectively, on the willingness of women to ask another villager to collect money).

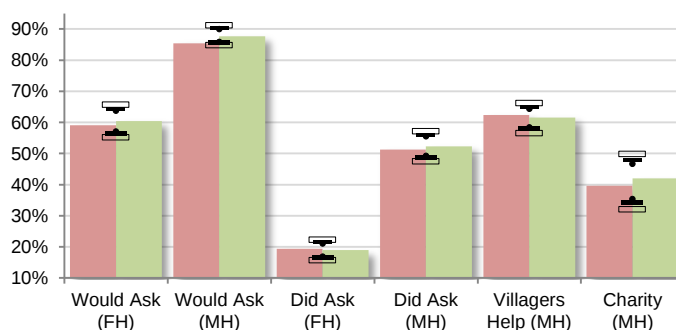
Table 68: Effects of NSP on Interpersonal Trust

|                                                | Endline     |                    | Midline           |                     |       |
|------------------------------------------------|-------------|--------------------|-------------------|---------------------|-------|
|                                                | Coefficient | p-Value            | Coefficient       | p-Value             |       |
| Interpersonal Trust                            | 0.018       | 0.363              | 0.032             | 0.044               |       |
| Indicator                                      | Ins.        | Endline            | Midline           | Trend               | Obs.  |
| Would Ask Other Villager to Collect Money      | FH          | 0.013<br>[0.020]   | 0.029<br>[0.019]  | -0.026<br>[0.024]   | 8,025 |
| Would Ask Other Villager to Collect Money      | MH          | 0.026**<br>[0.012] | 0.013<br>[0.013]  | 0.054***<br>[0.016] | 8,973 |
| Villager Has Collected Money for Respondent    | FH          | -0.004<br>[0.013]  | 0.020<br>[0.013]  | 0.008<br>[0.015]    | 7,912 |
| Villager Has Collected Money for Respondent    | MH          | 0.011<br>[0.019]   | -0.009<br>[0.017] | 0.159***<br>[0.021] | 8,980 |
| Villagers Are Always Willing to Help Others    | MH          | -0.010<br>[0.018]  | 0.025<br>[0.018]  | 0.163***<br>[0.022] | 8,971 |
| Paid Charity and/or Ag. Tax to Needy Villagers | MH          | 0.014<br>[0.034]   | 0.008<br>[0.016]  | 0.295***<br>[0.032] | 6,660 |

Note: Baseline controls and the fixed effects interaction specification render the midline *Would Ask Other Villager to Collect Money* (FH) estimate significant at 5 percent. Fixed effects interaction specification renders the midline *Villagers Are Always Willing to Help Each Other* estimate significant at 10 percent.

At endline, there is evidence that NSP increases, by 3 percentage points, the proportion of male villagers willing to ask another villager to collect money, although no evidence of impact on whether villagers do this. There is no evidence of endline impacts on the proportion of female villagers willing to ask another villager to collect money or whether villagers do this. There is also no evidence of endline impacts on whether male villagers believe other villagers are always willing to each other or have donated to charity in the past year.

Figure 128: Interpersonal Trust (Endline)



## V.ii. Literacy and Computational Ability

NSP may affect literacy and computational ability both directly and indirectly. The direct effect comes via NSP-funded vocational training and literacy courses, which are ordinarily targeted at women and run a number of months during NSP implementation.<sup>187</sup> The indirect effect comes through NSP impacts on economic activity and community participation in project management which, by ‘empowering’ male and female villages and facilitating exhibition of literacy and computational knowledge, may also improve such skills among villagers.<sup>188</sup>

At midline, there is evidence that NSP improves literacy and computation outcomes among villagers. These impacts are not observed at endline, however, and thus appear to be short-term effects triggered either by vocational and training courses and/or by the involvement of villagers in project selection, rather than more durable impacts.

### Literacy and Computational Ability (H41)

There is no evidence that NSP increases the ability of female villagers to complete a basic calculation at midline, although there is evidence of a 1 percentage point increase in the proportion of women who can read a basic

<sup>187</sup> Echavez (2010) reports that such courses improve female literacy and inspire a desire for further learning.

<sup>188</sup> In case study of how NSP implementation affected women’s lives in Parwan province, Echavez (2010) observes exactly this effect, recounting a quote from the husband of the female CDC: “[A]fter [my wife] participated in the NSP CDC as head of women’s CDC, she decided to learn how to read and write. She hopes to learn more and she asked me to teach her.” (p. 25). Another quote obtained from the secretary of the female CDC reads: “after performing all the duties of the secretary . . . I realized I could be a teacher” (p. 25).

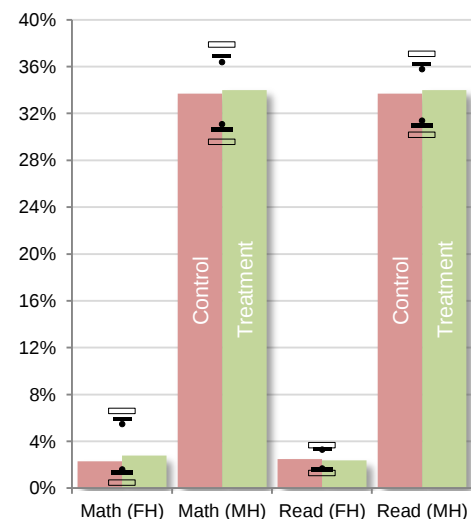
sentence. At midline, there is also weak evidence that NSP increases the proportion of male villagers who can correctly complete a basic calculation and read a basic sentence, each by 3 percentage points.<sup>189</sup>

**Table 69: Effects of NSP on Literacy and Mathematical Ability**

|                        | Endline     |                   | Midline            |                      |       |
|------------------------|-------------|-------------------|--------------------|----------------------|-------|
|                        | Coefficient | p-Value           | Coefficient        | p-Value              |       |
| Literacy & Computation | -0.001      | 0.966             | 0.057              | 0.003                |       |
| Indicator              | Ins.        | Endline           | Midline            | Trend                | Obs.  |
| Completed Calculation  | FH          | 0.013<br>[0.012]  | 0.018<br>[0.018]   | -0.358***<br>[0.018] | 8,025 |
| Completed Calculation  | MH          | -0.025<br>[0.016] | 0.024*<br>[0.013]  | -0.415***<br>[0.018] | 8,977 |
| Read Basic Sentence    | FH          | 0.000<br>[0.005]  | 0.010**<br>[0.004] | 0.008*<br>[0.004]    | 8,029 |
| Read Basic Sentence    | MH          | -0.001<br>[0.013] | 0.026*<br>[0.014]  | 0.004<br>[0.012]     | 8,979 |

*Note:* The addition of baseline controls increases the significance of the midline *Read Basic Sentence* (MH) estimate to 1 percent. Fixed effects interaction specification renders the endline *Completed Calculation* (FH) estimate significant at 5 percent, the midline *Completed Calculation* (MH) estimate significant at 5 percent, and the endline *Completed Calculation* (MH) estimate significant at 5 percent.

**Figure 129: Literacy and Computation (Endline)**



At endline, there is no evidence that NSP increases the proportion of male or female respondents who can complete a basic calculation or read a basic sentence (the fixed effects interaction specification provides evidence of a 1 percentage point increase in the proportion of female respondents who can complete a basic calculation, but evidence of a 2 percentage point decrease in the proportion of male respondents who can complete a basic calculation).

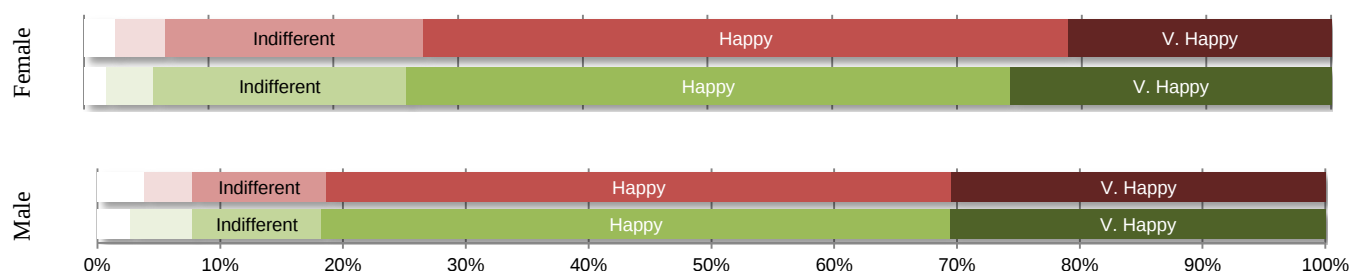
### V.iii. Happiness

If NSP is effective at improving access to basic services, increasing participation in local governance, and building social cohesion, the program may also impact villagers' happiness.<sup>190</sup> This section assesses this question using data collected from male and female villagers, who were asked to rate their level of happiness on a five-point scale. Overall, there appear to be no impacts of NSP on the happiness of villagers generally, either at midline or endline.

#### Happiness (H42)

There is no evidence at midline or endline that NSP increases or decreases the proportion of male villagers who describe themselves as “happy” or “very happy” or who describe themselves as “unhappy” or “very unhappy”. While there is no evidence that NSP impacts the proportion of female villagers who report that they are either “happy” or “very happy” at midline or endline, there is weak evidence that NSP induces a 2 percentage point decrease in the proportion of female villagers who are “unhappy” or “very unhappy”, both at midline and endline.<sup>191</sup>

**Figure 130: Differences between Control and Treatment Villages at Endline in Happiness of Male and Female Villagers**



<sup>189</sup> The statistical significance of the male literacy estimate increases to 1 percent once baseline controls are added. The fixed effects interaction specification increases the significance of the male math ability estimate to 5 percent.

<sup>190</sup> For more on the determinants of happiness, [Helliwell, Layard & Sachs \(2012\)](#), [Maslow \(1943\)](#), [Stevenson & Wolfers \(2008\)](#), and [The Economist \(2012\)](#).

<sup>191</sup> The fixed effects interaction specification increases the significance of both estimates to the 5 percent level.

Table 70: Effects of NSP on Happiness

|           | Endline     |         | Midline     |         |
|-----------|-------------|---------|-------------|---------|
|           | Coefficient | p-Value | Coefficient | p-Value |
| Happiness | 0.035       | 0.113   | 0.022       | 0.284   |

| Indicator                         | Ins. | Endline            | Midline            | Trend             | Obs.  |
|-----------------------------------|------|--------------------|--------------------|-------------------|-------|
| Happy or Very Happy with Life     | FH   | 0.022<br>[0.017]   | 0.014<br>[0.015]   | -0.033<br>[0.020] | 8,018 |
| Happy or Very Happy with Life     | MH   | 0.010<br>[0.014]   | 0.003<br>[0.012]   | -0.005<br>[0.015] | 8,944 |
| Unhappy or Very Unhappy with Life | FH   | -0.016*<br>[0.008] | -0.017*<br>[0.008] | -0.014<br>[0.010] | 8,018 |
| Unhappy or Very Unhappy with Life | MH   | -0.002<br>[0.010]  | 0.003<br>[0.009]   | -0.002<br>[0.010] | 8,944 |

Note: Fixed effects interaction specification renders the endline and midline *Unhappy or Very Unhappy with Life* (FH) significant at the 5 percent.

### V.in. Gender Attitudes

NSP mandates female participation through a number of different measures. Studies of gender quotas in India indicate that similar policies can improve attitudes to female decision-making.<sup>192</sup> Qualitative research on NSP also reports similar effects,<sup>193</sup> despite cultural constraints.<sup>194</sup> This section explores how NSP changes perceptions of gender roles by identifying the impacts on attitudes towards female economic, educational, social, and political participation.

Table 71: Test for Impact of NSP on Gender Attitudes

|                                                        | Endline      |              | Midline      |              |
|--------------------------------------------------------|--------------|--------------|--------------|--------------|
|                                                        | Coefficient  | p-Value      | Coefficient  | p-Value      |
| <b>Gender Attitudes</b>                                | <b>0.037</b> | <b>0.000</b> | <b>0.016</b> | <b>0.010</b> |
| Acceptance of Female Political Participation           | 0.046        | 0.005        | 0.006        | 0.535        |
| Acceptance of Female Economic and Social Participation | 0.031        | 0.075        | 0.019        | 0.183        |
| Cultural Constraints to Education of Girls             | 0.017        | 0.220        | 0.007        | 0.273        |
| Acceptance of Female Participation in Local Governance | 0.059        | 0.001        | 0.029        | 0.026        |

Note: Baseline augmented and fixed effects interaction specifications render endline *Acceptance of Female Economic & Social Participation* estimates significant at 5 and 1 percent levels, respectively.

There is strong evidence that NSP changes attitudes of villagers to gender roles at both midline and endline. NSP produces a durable increase in acceptance of female participation in local governance and broader political participation. However, there is no evidence at midline and only weak evidence at endline that NSP changes attitudes towards broader economic or social participation.<sup>195</sup> There is no evidence that NSP relaxes cultural constraints to the education of girls.

### Acceptance of Female Political Participation (H43)

At midline, there are no statistically significant differences between treatment and control groups in the proportion of male villagers who believe it is appropriate for women to vote in national elections or be involved, hypothetically, in the selection of the provincial governor.

Figure 131: Young Girl in Daulina



<sup>192</sup> See Beaman et al. (2009) and Bhavnani (2009)

<sup>193</sup> Boesen (2004) reports “an emerging, albeit slow, change of attitudes on the part of the male population” due to NSP (p. 49). See Beath, Christia & Enikolopov (2012c) for further discussion of women’s status in rural Afghanistan.

<sup>194</sup> Boesen (2004) reports that, in two villages visited, women were too afraid to participate in CDC activities due to their husband’s anger. Brick (2008a) also notes one case whereby male villagers later sold sheep purchased for an animal husbandry project selected by women and required by the FP in order to purchase more solar panels.

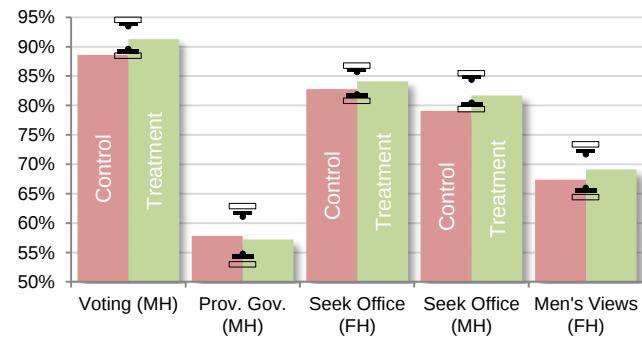
<sup>195</sup> Baseline augmented and fixed effects interaction specifications provide evidence and strong evidence of beneficial endline impacts on the *Acceptance of Female Economic and Social Participation* group.

Table 72: Effects of NSP on Acceptance of Female Political Participation

|                                              | Endline     |                     | Midline          |                      |       |
|----------------------------------------------|-------------|---------------------|------------------|----------------------|-------|
|                                              | Coefficient | <i>p</i> -Value     | Coefficient      | <i>p</i> -Value      |       |
| Acceptance of Female Political Participation | 0.046       | 0.005               | 0.006            | 0.535                |       |
| Indicator                                    | Ins.        | Endline             | Midline          | Trend                | Obs.  |
| Appropriate to Vote in National Elections    | MH          | 0.029**<br>[0.012]  | 0.004<br>[0.010] | -0.047***<br>[0.014] | 8,949 |
| Appropriate to Select Provincial Governor    | MH          | 0.002<br>[0.019]    | 0.008<br>[0.016] | -0.059***<br>[0.020] | 8,608 |
| Appropriate to Seek National Elected Office  | FH          | 0.010<br>[0.012]    | -                | -                    | 3,806 |
| Appropriate to Seek National Elected Office  | MH          | 0.033***<br>[0.012] | -                | -                    | 4,292 |
| Men Accept Women Seeking National Office     | FH          | 0.015<br>[0.017]    | -                | -                    | 3,362 |

At endline, however, there is evidence and strong evidence respectively of 3 percentage point positive impacts on the proportion of male villagers who believe it appropriate for women to vote in national elections and seek national elected office. There is, however, no evidence that NSP impacts the proportions of female villagers who believe it appropriate for women to seek national elected office or who believe that men in the village in majority hold the same opinion. There is also no impact on the proportion of male villagers who believe it appropriate for women to participate in the selection of the provincial governor.

Figure 132: Acceptance of Female Political Participation (Endline)



### Acceptance of Female Economic and Social Participation (H44)

At midline, NSP increases, by 3 percentage points, the proportion of female villagers who believe it appropriate for women to work with government and NGOs. However, there are no impacts at midline on the proportion of male villagers who believe it appropriate for women to work for government and NGOs or who would accept a female relative being treated by a male doctor. There is also no impact on the proportion of female villagers who would be willing to be treated by a male doctor.

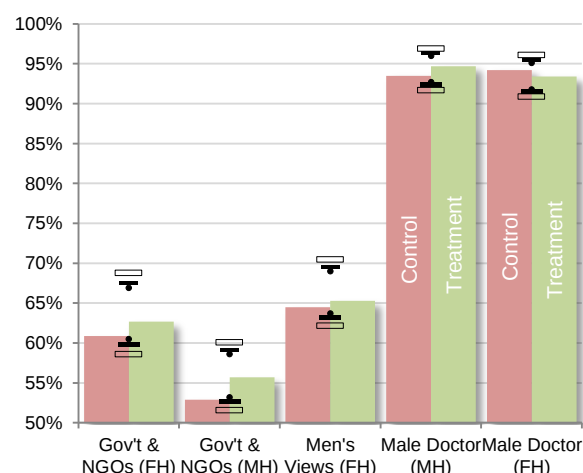
Table 73: Effects of NSP on Attitudes to Female Economic and Social Participation

|                                                       |      | Endline           |                    | Midline              |         |
|-------------------------------------------------------|------|-------------------|--------------------|----------------------|---------|
|                                                       |      | Coefficient       | p-Value            | Coefficient          | p-Value |
| Attitudes to Female Economic and Social Participation |      | 0.031             | 0.075              | 0.019                | 0.183   |
| Indicator                                             | Ins. | Endline           | Midline            | Trend                | Obs.    |
| Accepts Women Working in Gov't & NGOs                 | FH   | 0.028<br>[0.020]  | 0.033**<br>[0.016] | -0.094***<br>[0.022] | 8,006   |
| Accept Women Working in Gov't & NGOs                  | MH   | 0.030*<br>[0.016] | 0.015<br>[0.014]   | -0.139***<br>[0.016] | 8,946   |
| Men Accept Women Working in Gov't & NGOs              | FH   | 0.018<br>[0.016]  | -                  | -                    | 3,432   |
| Accept Female Relative Treated by Male Doctor         | MH   | 0.008<br>[0.010]  | -0.002<br>[0.010]  | 0.032***<br>[0.012]  | 8,968   |
| Willing to Be Treated by Male Doctor                  | FH   | -0.007<br>[0.010] | 0.001<br>[0.011]   | 0.011<br>[0.012]     | 8,025   |

Note: Baseline controls cause the endline *Accept Women Working in Gov't & NGOs* (MH) estimate to lose significance, but the *Men Accept Women Working in Gov't & NGOs* estimate to become significant at 10 percent. Fixed effects interaction specification renders both endline *Accept Women Working in Gov't & NGOs* significant at 5 percent and the endline *Accept Female Relative Treated by Male Doctor* estimate significant at 5 percent.

There is a weakly significant 3 percentage point impact on the proportion of male villagers who accept women working in government and NGOs (this is not robust to baseline controls).<sup>196</sup> There is no evidence at endline that NSP impacts the proportion of female villagers who accept women working with government and NGOs (the fixed effects interaction specification provides evidence of a 3 percentage point positive impact), or who believe the majority of men in the village accept women working in government and NGOs (this becomes significant following the addition of baseline controls). There is also no evidence that NSP impacts the proportion of men who would accept a female relative being treated by a male doctor (the fixed effects interaction specification provides evidence of a 1 percentage point positive impact) or the proportion of women who would be willing to be treated by a male doctor.

Figure 133: Acceptance of Female Ec. & Soc. Particip. (EL)



### Cultural Constraints to Education of Girls (H45)

There is no evidence that, at midline, NSP increases the value that mothers place on female birth relative to male births. There is also no evidence at endline that NSP impacts whether girls aged between 7 and 10 aspire to work in a professional occupation, attend university, or to live in the city once they reach adulthood. There is also no evidence that NSP impacts male or female views on the value of female education or female perceptions of men's views of such.

Figure 134: Cultural Constraints to Education of Girls (Endline)

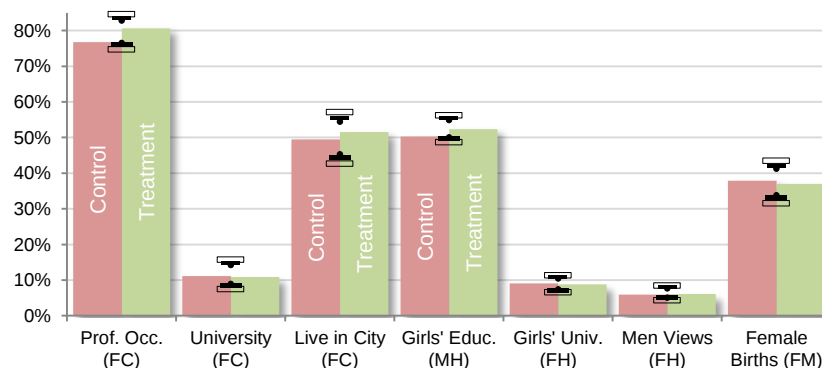


Table 74: Effects of NSP on Cultural Constraints to Education of Girls

|                                                 | Endline     |                   | Midline          |                   |       |
|-------------------------------------------------|-------------|-------------------|------------------|-------------------|-------|
|                                                 | Coefficient | p-Value           | Coefficient      | p-Value           |       |
| Cultural Constraints to Education of Girls      | 0.017       | 0.220             | 0.007            | 0.273             |       |
| Indicator                                       | Ins.        | Endline           | Midline          | Trend             | Obs.  |
| Girl Aspires to Work in Professional Occupation | FC          | 0.029<br>[0.019]  | -                | -                 | 1,241 |
| Girl Wished to Attend University                | FC          | 0.005<br>[0.016]  | -                | -                 | 1,229 |
| Girl Wants to Live in City                      | FC          | 0.004<br>[0.028]  | -                | -                 | 1,262 |
| Girls Should Receive Same Education as Boys     | MH          | 0.022<br>[0.015]  | -                | -                 | 4,307 |
| Girls Should Go to University                   | FH          | -0.001<br>[0.009] | -                | -                 | 3,725 |
| Men Believe Girls Should Go to University       | FH          | 0.004<br>[0.008]  | -                | -                 | 3,599 |
| Female Births At Least Valued Equally           | FH          | -0.003<br>[0.023] | 0.025<br>[0.024] | -0.038<br>[0.029] | 2,958 |

<sup>196</sup> The fixed effects interaction specification renders the effect significant at the 5 percent level.

## Acceptance of Female Participation in Local Governance (H46)

There is strong evidence at midline that the NSP increases, by 7 percentage points, the proportion of male villagers who believe women should participate in the selection of the village headman. However, there is no evidence at midline that NSP impacts the proportion of female villagers who believe women should participate in the selection of the headman or who believe that women should be members of the village council. There is also no evidence that, at midline, NSP changes the proportion of male villagers who believe women should be members of the village council.

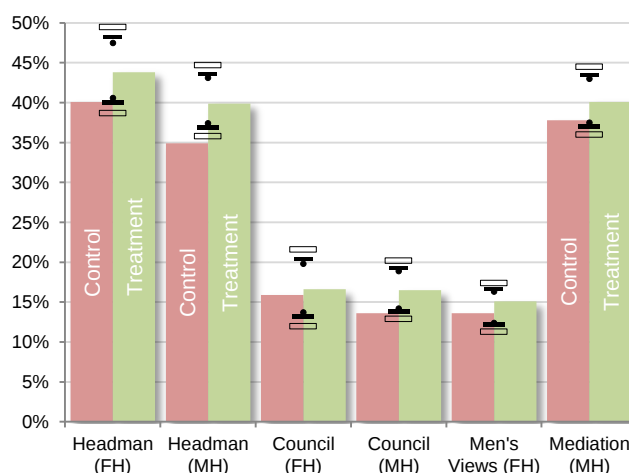
**Table 75: Effects of NSP on Acceptance of Female Participation in Local Governance**

| Acceptance of Female Participation in Local Governance |      |                     |                     |                      |         |
|--------------------------------------------------------|------|---------------------|---------------------|----------------------|---------|
|                                                        |      | Endline             |                     | Midline              |         |
|                                                        |      | Coefficient         | p-Value             | Coefficient          | p-Value |
| Acceptance of Female Participation in Local Governance |      | 0.059               | 0.001               | 0.029                | 0.026   |
| Indicator                                              | Ins. | Endline             | Midline             | Trend                | Obs.    |
| Women Should Help Select Headman                       | FH   | 0.040*<br>[0.021]   | 0.027<br>[0.021]    | 0.045*<br>[0.026]    | 7,218   |
| Women Should Help Select Headman                       | MH   | 0.053***<br>[0.017] | 0.066***<br>[0.018] | -0.042**<br>[0.019]  | 8,874   |
| Women Should Be Members of Village Council             | FH   | 0.009<br>[0.019]    | 0.012<br>[0.020]    | -0.121***<br>[0.024] | 7,544   |
| Women Should Be Members of Village Council             | MH   | 0.030**<br>[0.014]  | -0.015<br>[0.014]   | -0.026<br>[0.019]    | 8,859   |
| Men Accept Women as Members of Council                 | FH   | 0.008<br>[0.012]    | -                   | -                    | 3,340   |
| Women Should Participate in Dispute Mediation          | MH   | 0.024<br>[0.016]    | -                   | -                    | 4,286   |

Note: Baseline augmented specification renders the *Women Should Help Select Headman* (FH) insignificant, but the fixed effects interaction specification renders the estimate significant at 1 percent.

At endline, NSP increases, by 5 percentage points, the proportion of male villagers who believe women should participate in the selection of the headman and induces a 3 percentage point increase in the proportion of male villagers who believe that women should be members of the village council. There is also weak evidence of a 4 percentage point positive impact on the proportion of female villagers who believe women should help select the headman (baseline controls render the latter estimate insignificant).<sup>197</sup> There is, however, no evidence that NSP alters whether female villagers believe women should be members of the village council, whether female villagers believe that a majority of men in the village would accept women as members of the village council,<sup>198</sup> or on whether male villagers believe women should participate in dispute mediation.<sup>199</sup>

**Figure 135: Acceptance of Female Participation in Local Gov'n (EL)**



## V.v. Gender Outcomes

By increasing the openness of male villagers to female participation in local governance, NSP may also increase the involvement of women in key local governance activities, such as dispute mediation and food aid allocation. Qualitative research indicates that NSP relaxes constraints on female mobility and socialization,<sup>200</sup> but that the effect

<sup>197</sup> Fixed effects interaction specification renders the estimate significant at the 1 percent level.

<sup>198</sup> At endline and across the sample, 16 percent of female villagers believe women should be members of the village council and 15 percent of women believe that a majority of men in the village would accept women as members of the village council.

<sup>199</sup> At endline and across the sample, 39 percent of male villagers believe women should participate in dispute resolution.

<sup>200</sup> Azarbaijani-Moghaddam (2010) reports that "involvement in NSP has generally improved mobility for women, giving them somewhere legitimate to go on a regular basis and showing men that women's mobility had a positive impact on their personal growth." (p. 8). Echavez

is confined to the period of project implementation.<sup>201</sup> By empowering women generally, NSP may also increase the role of women in household decision-making.<sup>202</sup> This section explores impacts on female involvement in local governance, social activity, female mobility, and participation in economic activity and household decision-making.

Table 76: Test for Impact of NSP on Gender Outcomes

|                                                         | Endline      |              | Midline      |              |
|---------------------------------------------------------|--------------|--------------|--------------|--------------|
|                                                         | Coefficient  | p-Value      | Coefficient  | p-Value      |
| <b>Gender Outcomes</b>                                  | <b>0.034</b> | <b>0.012</b> | <b>0.046</b> | <b>0.000</b> |
| Women's Involvement in Local Governance                 | 0.079        | 0.000        | 0.041        | 0.000        |
| Social Activity Among Women                             | -0.017       | 0.303        | 0.006        | 0.417        |
| Women's Mobility                                        | 0.039        | 0.185        | 0.120        | 0.000        |
| Participation in Economic Activity & HH Decision-Making | 0.003        | 0.905        | 0.001        | 0.967        |

Note: Fixed effects interaction specification renders endline *Women's Mobility* estimate significant at 5 percent.

There is evidence that NSP impacts gender outcomes at both midline and endline. The strongest impact is on female involvement in local governance, which appears at midline and endline. While there is no evidence that NSP increases female mobility at endline,<sup>203</sup> there is strong evidence of impact at midline. There is no evidence at midline or endline that NSP impacts the extent of female socialization or women's participation in economic activity or household decision-making.

### Women's Involvement in Local Governance (H47)

At midline, there is strongly significant differences between treatment and control groups in the proportions of female and male villager respondents who report that there is at least one woman in the village who is well-respected by both men and women (8 and 9 percentage points, respectively).

Table 77: Effects of NSP on Women's Involvement in Local Governance

|                                            |      | Endline             |                     | Midline             |         |
|--------------------------------------------|------|---------------------|---------------------|---------------------|---------|
|                                            |      | Coefficient         | p-Value             | Coefficient         | p-Value |
| Women's Involvement in Local Governance    |      | 0.079               | 0.000               | 0.041               | 0.000   |
| Indicator                                  | Ins. | Endline             | Midline             | Trend               | Obs.    |
| Woman in Village Well-Respected by All     | FH   | 0.016<br>[0.021]    | 0.075***<br>[0.018] | 0.176***<br>[0.024] | 7,873   |
| Woman in Village Well-Respected by All     | MH   | 0.039<br>[0.024]    | 0.094***<br>[0.021] | 0.296***<br>[0.030] | 8,973   |
| Women Helped Mediate Most Recent Dispute   | FH   | 0.009<br>[0.006]    | -                   | -                   | 3,619   |
| Women Helped Mediate Most Recent Dispute   | MH   | 0.020***<br>[0.006] | -                   | -                   | 4,308   |
| Women Participate in Mediation Generally   | FH   | 0.012**<br>[0.006]  | -                   | -                   | 3,298   |
| Women Participate in Mediation Generally   | MH   | 0.028**<br>[0.013]  | -                   | -                   | 4,139   |
| Women's Views Considered in Aid Allocation | FH   | 0.035***<br>[0.010] | -                   | -                   | 3,391   |
| Women's Views Considered in Aid Allocation | MH   | 0.039**<br>[0.015]  | -                   | -                   | 4,095   |

Note: Baseline controls reduce the significance of *Women Participate in Mediation Generally* (FH) estimate to 10 percent.

(2010) recounts an observation from a head of the female CDC that “women can now go to the doctor by themselves or with a small girl or boy if they are not feeling well”, a situation t “unthinkable” before (p. 24).

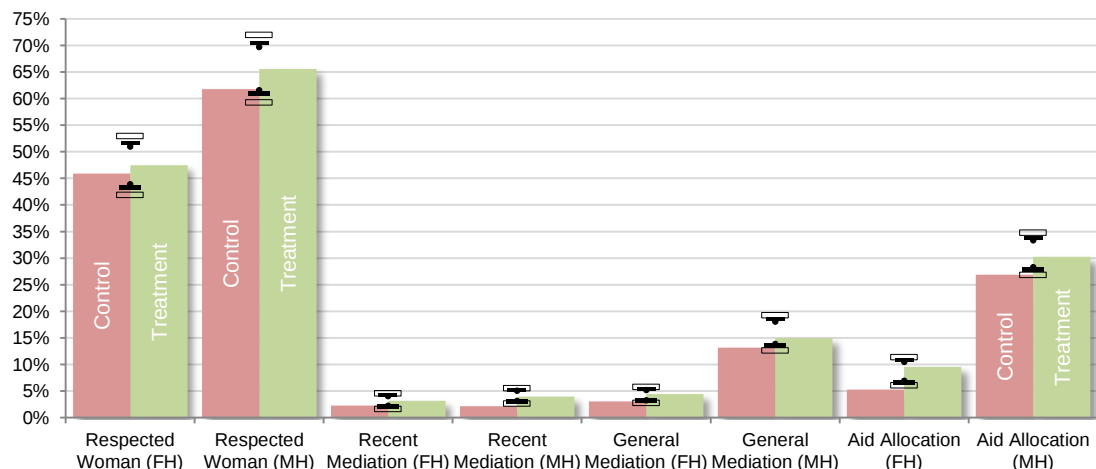
<sup>201</sup> Azarbaijani-Moghaddam (2010) notes that NSP has enabled women “to be able to gather and to get to know each other”, but that “women were no longer interested to meet and men would not let them” following project completion. (p. 10).

<sup>202</sup> Azarbaijani-Moghaddam (2010) reports that women interviewed “indicated that NSP gave them more of a say in family affairs.” (p. 15) Echavez (2010) also describes women being increasingly consulted in household decision-making due to their participation in CDCs, including control of household earnings (p. 24) and advising family on “jobs, business, and any other issue that comes up” (p. 26).

<sup>203</sup> Fixed effects interaction specification provides evidence of endline impact on female mobility.

In contrast to the midline result, there is no evidence at endline that NSP affects the proportions of male or female villagers reporting that there is a woman in the village that is well-respected by all (the fixed effect interaction specification provides strong evidence of a 4 percentage point positive impact for the male indicator). However, endline impacts are observed on the proportions of male villagers who report that women were involved in the mediation of the most recent dispute (2 percentage points), that women are generally involved in dispute mediation (3 percentage points),<sup>204</sup> or that women's views are generally considered when allocating food aid (4 percentage points). While NSP does not change the proportion of female villagers who report that women were involved in the resolution of the most recent dispute, there is evidence of impact on the proportion of female villagers that report women are generally involved in dispute mediation (1 percentage point) and that women's views are commonly considered when allocating food aid (4 percentage points).

Figure 136: Differences between Treatment and Control Groups at Endline in Women's Involvement in Local Governance



### Social Activity among Women (H48)

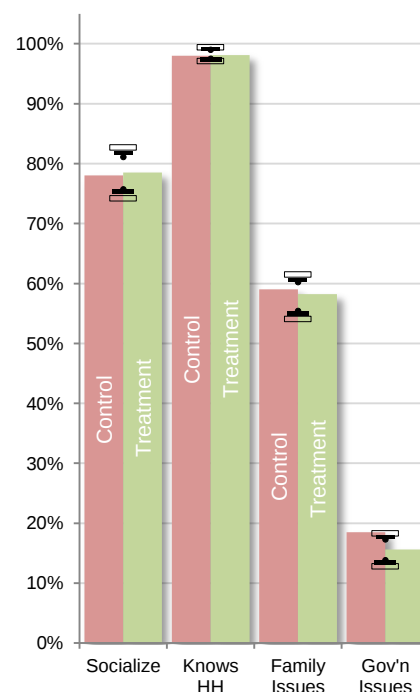
At midline and endline, there is no evidence that NSP impacts the extent to which female villagers regularly socialize with other women in the village. There is also no evidence at endline that NSP impacts whether female villagers know at least one household in a neighboring village or discussed maternal or family issues with another villager in the past week. The basic specification provides strong evidence that NSP reduces the proportion of female villagers who discussed disputes or other local governance issues with a villager in the past week, but the result disappears entirely once baseline controls are added.

Table 78: Effects of NSP on Social Activity Among Women

|                                     | Endline     |                      | Midline          |                     |       |
|-------------------------------------|-------------|----------------------|------------------|---------------------|-------|
|                                     | Coefficient | p-Value              | Coefficient      | p-Value             |       |
| Social Activity Among Women         | -0.017      | 0.303                | 0.006            | 0.417               |       |
| Indicator                           | Ins.        | Endline              | Midline          | Trend               | Obs.  |
| Socializes with Other Women         | FH          | 0.004<br>[0.016]     | 0.012<br>[0.014] | 0.063***<br>[0.019] | 8,019 |
| Knows Household in Other Village    | FH          | 0.002<br>[0.005]     | -                | -                   | 2,860 |
| Discussed Maternal of Family Issues | FH          | -0.012<br>[0.014]    | -                | -                   | 3,812 |
| Discussed Local Governance Issues   | FH          | -0.030***<br>[0.011] | -                | -                   | 3,812 |

Note: Baseline controls render the estimate of *Discussed Local Governance Issues* insignificant.

Figure 137: Social Activity (Endline)



<sup>204</sup> The addition of baseline controls reduces the significance of this estimate to the 10 percent level.

## Women's Mobility (H49)

At midline, there is weak evidence that NSP induces a 4 percentage point increase in the proportion of female villagers who visited the neighboring village in the past year (this is not robust to baseline controls),<sup>205</sup> evidence of a 7 percentage point positive impact on the probability of village women having met with women from another village in the past year, and strong evidence of a 4 percentage point positive impact on the probability of village women having met with representatives of the district government in the past year. There is no evidence of midline impacts on intra-village female mobility (measured by trips taken by female villagers outside their compound in the past month) or on the proportion of women who travel outside their compound without a male chaperone (fixed effects interaction specification provides evidence of a 3 percentage point increase), who rarely or never wear a *chadori* (burqa), or who recently visited the district center (fixed effects interaction specification provides weak evidence of a 3 percentage point increase).

Figure 139: Number of Trips Outside Compound in Past Month (Endline)

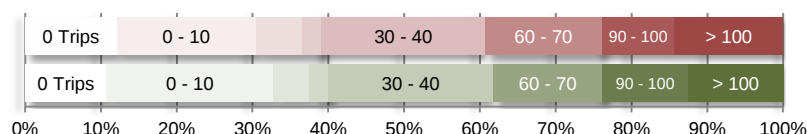


Figure 138: Women's Mobility (Endline)

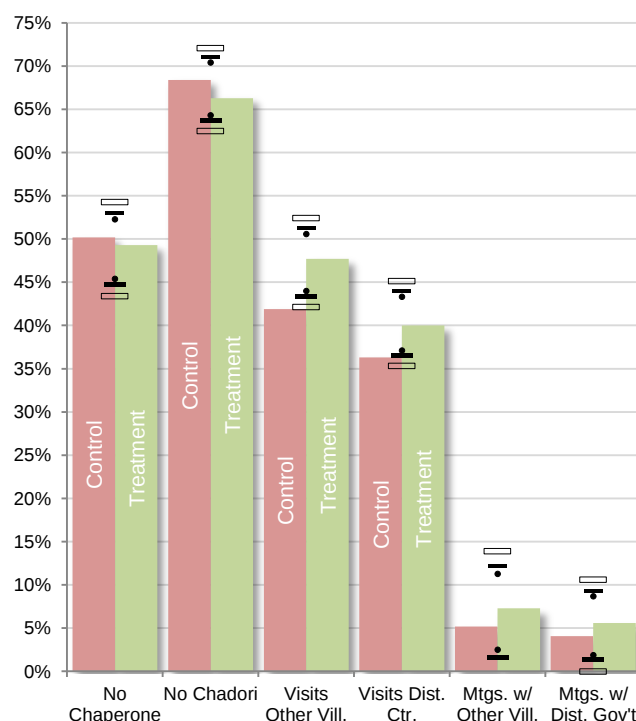


Table 79: Effects of NSP on Women's Mobility

|                                            | Endline     |                     | Midline             |                      |       |
|--------------------------------------------|-------------|---------------------|---------------------|----------------------|-------|
|                                            | Coefficient | p-Value             | Coefficient         | p-Value              |       |
| Women's Mobility                           | 0.039       | 0.185               | 0.120               | 0.000                |       |
| Indicator                                  | Ins.        | Endline             | Midline             | Trend                | Obs.  |
| Trips Outside Compound in Past 30 Days     | FH          | -0.043<br>[0.072]   | 0.029<br>[0.068]    | -0.641***<br>[0.091] | 8,003 |
| Leaves Compound Alone or with Small Child  | FH          | -0.014<br>[0.021]   | 0.027<br>[0.019]    | -0.191***<br>[0.025] | 8,014 |
| Rarely Wears <i>Chadori</i> When Outside   | FH          | -0.011<br>[0.018]   | 0.011<br>[0.021]    | -0.106***<br>[0.024] | 8,029 |
| Visited Nearest Village in Past Year       | FH          | 0.054***<br>[0.020] | 0.038*<br>[0.020]   | 0.058***<br>[0.021]  | 8,036 |
| Visited District Center in Past Month      | FH          | 0.039**<br>[0.019]  | 0.030<br>[0.020]    | 0.036*<br>[0.020]    | 8,025 |
| Met with Other Village Women in Past Year  | FG          | 0.017<br>[0.027]    | 0.073***<br>[0.022] | 0.031<br>[0.024]     | 796   |
| Women Met with District Gov't in Past Year | FG          | 0.012<br>[0.020]    | 0.041**<br>[0.017]  | 0.045**<br>[0.018]   | 795   |

Note: Baseline controls render the midline estimate for *Visited Nearest Village in Past Year* insignificant and reduce the statistical significance of the endline estimate for *Visited District Center in Past Year* to the 10 percent level. Fixed effects interaction specification renders the midline *Leaves Compound Alone or with Small Child* estimate significant at 5 percent, the midline *Visited Nearest Village in Past Year* estimate significant at 1 percent, and the midline *Visited District Center in Past Month* estimate significant at 10 percent.

At endline, NSP produces increases of 5 percentage points in the proportion of female villagers who visited a neighboring village in the past year and 4 percentage points in the proportion of female villagers who visited the district center in the past month.<sup>206</sup> However, there are no endline impacts on intra-village mobility; on the ability of

<sup>205</sup> Fixed effects interaction specification renders the estimate significant at the 1 percent level.

<sup>206</sup> Baseline augmented specification renders the latter estimate significant at 10 percent.

women to leave the compound without a male chaperone; on whether women wear a *chadori* when walking in the village; and on the probability of village women having met with district authorities or women from other villages. The observed time trends are indicative of a reduction in intra-village female mobility between 2009 and 2011, but an increase in extra-village mobility.

### Women's Participation in Economic Activity and Household Decision-Making (H50)

Although NSP induces a 5 percentage point increase at midline in the proportion of female villagers who generated income in the past year,<sup>207</sup> there are no differences in the proportion of female villagers who exert control over earned income, own at least one type of asset, exert control over assets or income they generate, or are involved in households decisions with regard to the education or marriage of children or the purchase of household items.

Figure 140: Young Girls in Daulina



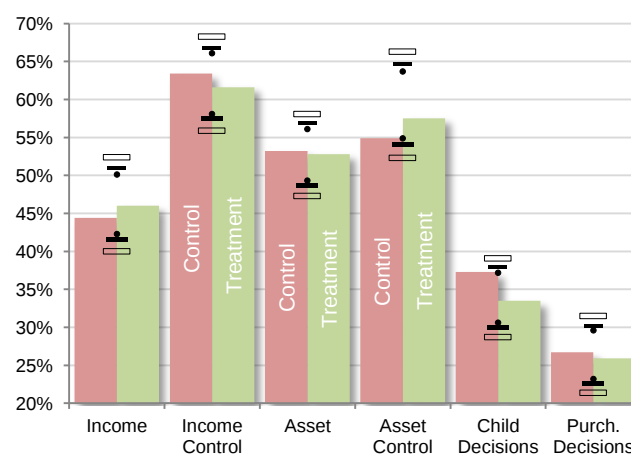
Table 80: Effects of NSP on Participation in Economic Activity and Household Decision-Making

|                                                           |      | Endline            |                    | Midline              |         |
|-----------------------------------------------------------|------|--------------------|--------------------|----------------------|---------|
|                                                           |      | Coefficient        | p-Value            | Coefficient          | p-Value |
| Participation in Economic Activity and HH Decision-Making |      | 0.003              | 0.905              | 0.001                | 0.967   |
| Indicator                                                 | Ins. | Endline            | Midline            | Trend                | Obs.    |
| Generated Income in Past Year                             | FH   | 0.018<br>[0.024]   | 0.051**<br>[0.023] | 0.057**<br>[0.028]   | 8,020   |
| Exerts Control over Income Earned                         | FH   | -0.013<br>[0.024]  | -0.016<br>[0.025]  | -0.013<br>[0.032]    | 3,317   |
| Owns At Least One Type of Asset                           | FH   | -0.005<br>[0.021]  | 0.013<br>[0.021]   | 0.107***<br>[0.026]  | 8,039   |
| Exerts Control over Assets or Income Generated            | FH   | 0.044<br>[0.027]   | -0.006<br>[0.024]  | -0.145***<br>[0.035] | 3,994   |
| Involved in Household Decisions on Children               | FH   | -0.034*<br>[0.020] | -0.017<br>[0.018]  | -0.060**<br>[0.025]  | 7,424   |
| Involved in Household Purchasing Decisions                | FH   | -0.003<br>[0.019]  | -0.023<br>[0.018]  | -0.050**<br>[0.021]  | 8,038   |

Note: Baseline augmented specification renders midline *Generated Income in Past Year* estimate significant at 10 percent and endline *Involved in Household Decisions on Children* estimate insignificant. Fixed effects interaction specification renders endline *Exerts Control over Assets or Income Generated* estimate significant at 10 percent.

At endline, there is no evidence of impact on the proportion of female villagers who engaged in income-generating activities in the past year (the time trend indicates a general increase between 2009 and 2011 due to factors other than NSP) or on the extent to which women exert control over earned income, own assets, or exert control over assets or income generated by assets (the fixed effects interaction specification provides weak evidence of a 4 percentage point positive impact). There is weak evidence that NSP induces a decline in the involvement of women in decisions concerning procreation and the education and marriage of children, although this is not robust to baseline controls. There is no evidence that NSP impacts involvement in decisions concerning the purchase of household items.

Figure 141: Female Part. in Ec. Activity and HH Dec.-Making (EL)



<sup>207</sup> Baseline augmented specification renders effects significant at 10 percent.



## Part IV - Conclusion

## I. Summary of Results

The following sections summarize estimates of NSP impacts.<sup>208</sup> Figure 157 presents the statistical significance of midline and endline impacts in graphical form, with hypothesized causal chains linking inputs, processes, and outcomes.

### I.i. Access to Utilities, Services, and Infrastructure

NSP-funded drinking water and electricity projects are generally effective. IV-based estimates indicate that drinking water projects increase usage of protected water sources by 36 percentage points at endline, reduce time spent collecting water by 30 percent, and reduce the incidence of water shortages by an average of 0.35 seasons per year. While water projects improve perceived water quality at midline, the effect is not durable, which may indicate deficiencies in construction or maintenance or adjusting perceptions of quality over time. Electricity projects meanwhile have a profound effect, inducing a 50-fold increase in electricity usage.

Although NSP rarely funds schools and clinics, it indirectly impacts education and health outcomes. NSP increases girls' school attendance and improves girls' mathematical ability, increases the probability of children visiting a doctor at least once a year by 6 percentage points, increases access to prenatal care by 7 percent, and increases the probability that an ill or injured woman receives care from a qualified specialist by 1 percentage point. NSP has no impact on boys' school attendance, infant mortality, diarrhea incidence, birth attendance, or access to medical facilities, but increases the access of women to informal counseling services by 6 percentage points. These results, in conjunction with estimates of the effects of NSP on female mobility, suggest that the NSP's policy of mandating female participation relaxes cultural constraints on female movement and activity, which improves the access of women and girls to social services.

In contrast with utilities projects, NSP-funded irrigation and transportation projects have no durable impacts. Irrigation projects do not affect the perceived sufficiency of irrigation for either land-holding villagers or land-holding village leaders. Likewise, transportation projects do not reduce the average number of months per year that villages are inaccessible due to snow or other factors and do not affect the average cost or duration of travel to the district center. Given that the indicators used are relatively sensitive, the observed lack of impact is likely not simply due to a long gestation period, but rather due to the qualities of the projects themselves. Further research is required, though, to determine the specific nature of deficiencies.

### I.ii. Economic Welfare

Given the lack of impact on infrastructure projects, it is unsurprising that there are few observed impacts on objective economic outcomes at endline. NSP has no durable, robust impacts on the average level, regularity, or sources of household income; on the level or composition of consumption expenditure; on stocks of household and livestock assets; on the incidence of borrowing to fulfill food or medical needs; on caloric intake or the incidence of food shortages; on agricultural yields, agricultural productivity, access to agricultural markets, or revenue from sales of produce; or on access to markets for sales of handicrafts, live animals, or animal products or revenue from such. There is, however, weak evidence that NSP induces a 17 percent decrease in the volume of borrowing at endline.

There are also few observed impacts of NSP on objective economic outcomes at midline, which suggests that short-term 'stimulus' effects of block grants are also limited. There is, however, weak evidence at midline that NSP induces a 2 percent increase in the average daily caloric intake of household members; evidence of a 21 percent increase in

Figure 142: Well in Daulina

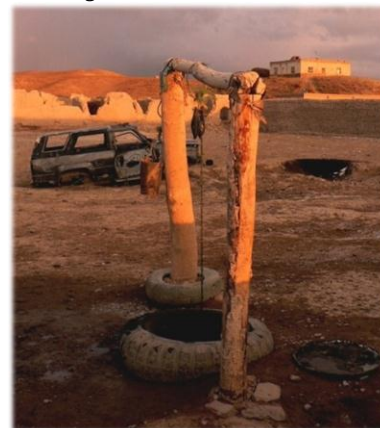


Figure 143: Children Collecting Water



Figure 144: Market Day in Balkh



<sup>208</sup> This summary focuses predominantly on estimates on endline indicators produced by the basic specification and does not report results of means effects estimation.

revenue generated from sales of agricultural produce; weak evidence of a 2 percentage point increase in sales of handicrafts; and evidence of a 9 percent increase in revenue generated from sales of handicrafts.

Notwithstanding the limited impacts on objective economic outcomes, NSP improves economic perceptions and optimism among villagers, particularly women. At endline, female respondents in treatment villages are 5 percentage points more likely to believe that the economic situation of their household has improved in the past year and 4 percentage points more likely to believe that the economic situation of their village will improve next year. Although NSP improved economic perceptions of male villagers at midline, endline impacts are much weaker. The impact of NSP on subjective economic outcomes indicates that, while the program may not necessarily increase overall economic activity, it is appreciated by villagers, particularly women, for its effects on development outcomes, such as access to drinking water and electricity.

There is some evidence that NSP's effect on economic perceptions changes migration behavior, with lower rates of out-migration of households in treatment villages. At midline, NSP induces an increase of 0.25 households in net migration, while there is weak evidence of a 0.22 increase at endline. There is, however, no evidence that NSP alters migration behavior at the intra-household level.

### I.iii. Local Governance

NSP alters structures of local governance through the creation of a gender-balanced CDC. Female representation in local institutions persists beyond project completion, with male respondents 38 percentage points more likely at endline to report the existence of a village council with at least one female member. However, CDCs are of limited institutional relevance beyond project completion, with no impact on the probability that the village's primary decision-maker is affiliated with a representative body, such as a CDC. NSP also does not impact the identities of *de facto* village leaders.

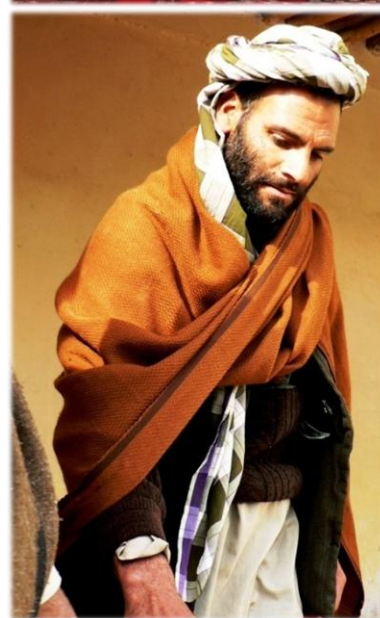
NSP has limited impact on the provision and division of local governance functions. At endline, NSP does not increase the availability of key local governance services, such as dispute mediation or notarization. However, female villagers perceive that assemblies in NSP villages are more active, while men indicate that headmen are less active but that assemblies meet more frequently. According to male villagers, NSP does not have durable impacts on the activity of assemblies, clergy, or commanders. NSP also has no impact at endline on whether representative bodies mediate disputes or distribute aid, although there is weak evidence of an increase in involvement in notarization. There is also no effect on whether villagers prefer representative bodies to resolve disputes or liaise with government, but NSP does increase, by 3 percentage points, the proportion of men who believe such bodies should manage projects. Thus, while CDCs induce some changes in the extent to which local institutions engage with women, they have limited effects on the provision of local governance services and the division thereof among local institutional actors.

NSP reduces the satisfaction of male villagers with local governance, while having no lasting impact on female villagers' satisfaction. At endline, men in treatment villages were 6 percentage points less likely at endline to perceive village leaders as benevolent, 3 percentage points less likely to believe local disputes are resolved fairly, 8 percentage points less likely to believe that local crimes are resolved fairly, 7 percentage points less likely to express satisfaction with the work of village leaders in the past year, and 5 percentage points more likely to have disagreed with a local public decision. No endline impacts of NSP were observed on female perceptions of village leaders, on whether village leaders are responsive to women, on female satisfaction with village leaders, or on the incidence of disagreement among women with a local public decision. Similarly, no impacts were observed on male perceptions of the village headman or on the expected equity of a local distribution of assistance. NSP also has no lasting effect on informal taxation by village leaders or on attendance at

Figure 145: CDC Election in Daulina



Figure 146: CDC Election in Balkh



assembly meetings. The program does, however, increase, by 1 and 3 percentage points, the proportion of men and women respectively who wanted to change a decision of the local leadership in the past year.

The results of the VBDA experiment help interpret the unanticipated impacts of NSP on perceived local governance quality. Specifically, the VBDA results show that while CDC management of distributions improves objective targeting, the presence of CDCs *per se* increases the incidence of embezzlement of aid and renders decision-making processes less participatory. This suggests that in cases whereby the mandate of the CDC is not well-defined, the presence of the additional institution may exacerbate ambiguities in institutional accountability which local leaders exploit for private benefit. Such a scenario may arise following the completion of NSP-funded projects, at which time the role of the CDC is relatively unclear and which may thereby provoke opportunistic behavior by local leaders.

#### *I.iv. Political Attitudes and State-Building*

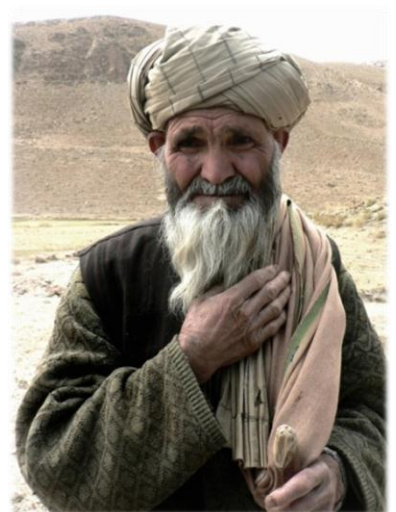
NSP impacts participation in national electoral processes and some measures of acceptance of democratic practices. At endline, men in NSP villages were 5 percentage points more likely to believe elections were the best method to select village headmen. However, NSP has no lasting effect on whether villagers believe important local decisions should be made in a participatory fashion, whether it is considered appropriate to discuss governance issues in public, or whether the president or provincial governor should be elected. Interestingly, self-reports of electoral participation in the 2010 parliamentary election were higher in NSP villages, with the program inducing a 4 percentage point increase in male voting and a 6 percentage point increase in female voting. NSP, however, has no effect on the ability of villagers to name provincial parliamentary representatives.

NSP does not have durable impacts on acceptance of government authority or linkages between villages and government. Specifically, there are no effects on the acceptance of government jurisdiction, acceptance of government determination of school curricula, support for ID cards and registration of life events, acceptance of income tax, preferences for a centralized state, or patriotism. At endline, there is no observed impact on the frequency of visits to villages of representatives of the central government, district government, or the Afghan National Security Forces.

There is only weak evidence at endline that NSP improves perceptions of government actors. A 3 percentage point increase is observed in the proportion of male villagers who believe that the President acts in the interest of all villagers and 4 percentage point increases are observed in the analogous indicators for central government officials and ISAF soldiers. NSP has no robust lasting effect on perceptions of members of parliament, government judges, Afghan National Security Forces, district administrators, provincial governors, or NGO staff. NSP also has no effect on villagers' perceptions of general economic and social progress over the previous 9 years or on the perceived capability of Afghan National Security Forces.

According to data provided by household and focus group respondents, NSP has no effect on the likelihood of villages suffering violent attacks. There is also no evidence that NSP affects the ability of insurgent groups to expropriate portions of harvests. However, NSP does induce a 5 percentage point increase in the proportion of male respondents who perceive an improvement of security over the past 2 years, although no such effect is apparent for female respondents, with respect either to girls attending school or women engaging in work or activities outside the home. NSP also has no impact on the proportion of male villagers who report being personally impacted by insecurity.

Figure 147: Elders in Daulina District



## *I.v. Social Norms*

There is some evidence that, at endline, NSP increases social cohesion among male villagers. Specifically, a 1 percentage point reduction is observed in the incidence of interpersonal disputes reported by male villagers and a 3 percentage point increase is observed in the proportion of male villagers who would be willing to ask another male villager to collect money for them. However, there are no impacts of NSP on disputes reported by village leaders, in the incidence of tribal feuds, or on the resolution of interpersonal disputes. Similarly, no impacts are observed on the proportion of female villagers who would ask another villager to collect money for them, on the proportion of male and female villagers who have asked another villager to collect money for them, on the proportion of male villagers who believe other villagers are always willing to help others, or on the proportion of households that made charitable contributions in money or kind during the past year.

At endline, there is no evidence that NSP affects the literacy or computational skills of male and female villagers, despite some evidence for effects at midline. There is weak evidence of a 2 percentage point reduction in the proportion of female villagers who report that they are unhappy, a result which could be caused by increased counseling services for women, increased female participation in local governance, and/or increased access to basic utilities and services. There is, however, no effect of NSP on the proportion of male villagers who report that they are either happy or unhappy, nor on the proportion of female villagers who report that they are happy.

There is strong evidence that NSP relaxes cultural constraints to female participation in local governance and political affairs generally. NSP increases, by 4 and 5 percentage points, the proportion of men and women who believe women should participate in the selection of the village headman. NSP also induces a 3 percentage point increase in the proportion of men who believe women should be members of the village council. However, it has no impact on women's views on the issue, whether men believe women should participate in dispute mediation, nor whether women believe men would accept women as members of the village council. NSP also increases, by 3 percentage points, the proportions of male villagers who believe it appropriate for women to vote in national elections or for women to seek national elected office. There are, however, no effects on whether men believe women should participate in the selection of the provincial governor or in the proportion of women who believe it appropriate for women to seek national elected office.

Generally, there is much weaker evidence that NSP impacts broader social attitudes to female participation in economic and social affairs. While NSP induces a 3 percentage point increase in the proportion of men who believe it appropriate for women to work with government and NGOs, the program has no impact on female views on such or whether men or women believe it appropriate for women to be treated by a male doctor in the absence of other alternatives. Similarly, NSP does not impact attitudes towards girls' education, whether this is assessed by men's or women's views or by girls' aspirations, or the relative value placed on female births.

According to male respondents, NSP induces a 2 percentage point increase in the proportion of men who report that women participated in the most recent dispute mediation, although this is not corroborated by data from female respondents. Data from female and male respondents agree, however, that NSP increases female involvement in mediation generally (1 percentage point increase according to women and 3 percentage points according to men) and the allocation of aid (4 percentage points for both). Surprisingly given midline results, NSP has no impact on whether there is at least one women in the village who is well-respected by both men and women alike.

Evidence on whether NSP increases the involvement of women in social activity is mixed. NSP does not affect the extent of socialization or frequency of discussions of family or health issues, but increases the proportion of women

Figure 148: Girls in Daulina District



Figure 149: Villagers in Balkh



Figure 150: Woman & Child in Daulina



who have visited another village in the past year or the district center in the past month by 5 and 4 percentage points respectively. However, no durable impacts are observed on measures of intra-village mobility or on meetings between women of different villages or with the district government. Finally, there is no evidence that NSP increases participation by women in economic activity or decision-making, as measured by whether women generate income, exert control over income earned, own assets, exert control over owned assets, or are involved in household purchasing decisions.

## II. Discussion of Results

The study's results provide a rigorous assessment of the absolute impact of NSP on a broad set of outcomes, covering both NSP's formal 'project development objectives' as well as areas of general interest.

Comprehensive though the results may be, there are limitations in how they should be applied. The results do not provide information about potential sources of treatment heterogeneity – that is, which types of implementation modalities or contextual conditions enhance or impair program impact. In the absence of comparable evaluations of other development programs, the results also do not provide a basis for making comparative statements about NSP's effectiveness vis-à-vis other project delivery mechanisms or interventions. Similarly, due to the lack of comparability, the results do not necessarily lend themselves to qualitative judgments concerning the relative size of the observed impacts.

The results nonetheless point to several areas of success for NSP and several areas of concern. The positive effects of NSP on subjective economic outcomes indicate that the impacts of drinking water and electricity projects have been fundamental in improving villagers' lives. Likewise, the success of NSP in improving a wide range of outcomes for women and in lessening cultural constraints to female participation in governance is an important achievement.

However, the relative failure of NSP-funded local infrastructure projects is a concern given the large proportion of block grants they consume. Finally, the observed worsening of local governance quality underscores the importance of assessing whether the presence of CDCs may be inadvertently diffusing institutional accountability in Afghan villages. With a view to exploring changes which might enhance programmatic effectiveness, the following paragraphs discuss noteworthy findings of the study:

Drinking water and electricity projects are generally effective (see Section I.i in Part III). However, although drinking water projects produce sustained increases in the use of protected sources, the strong positive impact observed at midline in the perceived quality of drinking water is not durable. As noted in Section I.i in Part IV, this may be the result of perceptions of quality adjusting over-time, but could also indicate a gradual degradation in the actual quality of drinking water produced by the newly-installed schemes, either due to a lack of maintenance or design faults.

Irrigation and transportation projects are of limited effectiveness (see Section I.iii in Part III). As noted in Section I.i in Part IV above, these results do not appear to be due to a longer gestation time for project impacts, as the respective indicators should detect any project-induced impacts during the next harvesting season (in the case of irrigation projects) or next winter (in the case of road projects), at the latest. Instrumental variable estimates of project impact also indicate that transportation projects reduce the number of months that villagers are inaccessible at midline, but this effect is no longer present at endline. This, in turn, suggests that NSP-funded transport projects may be hamstrung by design or maintenance inadequacies, although further investigation of this is required.

Figure 151: Focus Group Discussion in Herat Province



Figure 152: Boys at CDC Election in Daulina



Figure 153: Tribal Elders at CDC Election in Balkh



Although the study did not focus on the specific impact of human capital development projects such as literacy courses or vocational training, midline impacts on female literacy and mathematical competency (see Section V.ii in Part III) and on handicraft sales (see Section II.iii in Part III) suggest that these interventions may be producing short-term benefits for female villagers, but that these benefits are not sustained. Accordingly, efforts might be undertaken to expand the reach and sustainability of such interventions.

While the study generally found that NSP had limited impacts on objective economic indicators, durable impacts on subjective economic perceptions were observed at midline and endline (see Section II.i in Part III). This may indicate that villagers' economic perceptions subsume outcomes such as access to drinking water and electricity, which were both positively impacted by NSP-funded projects.

Of serious concern is that NSP worsens perceptions of the quality of local governance among male villagers at endline (see Section III.iii in Part III). This effect is not present at midline, at which point the program is observed to improve perceptions of the quality of governance among female villagers. In addition, the institutional relevance of the CDC – relatively strong at midline – fades substantially following project completion. These results, and those of the VBDA (see Section III.iv in Part III), suggest that the diffusion of institutional authority created by the co-existence of CDCs with local customary institutions and the ambiguous mandates of CDCs following project completion may be responsible for the perverse effect on local governance quality. The results underscore the need to clarify the role of the CDC vis-à-vis existing local customary institutions.

NSP has positive impacts on perceptions of government and acceptance of democratic processes (see Sections IV.i and IV.iii in Part III). These effects, though, are confined mostly to the period of project implementation, with the support boost due by NSP fading following project completion. Such dynamics suggest that program effects on government legitimacy are channeled through the delivery of services, rather than development *per se*. That is, while NSP-funded projects deliver an impact in improving access to utilities, this is not sufficient to improve perceptions of government unless there is an expectation of future service provision, which often does not exist once villages have completed NSP-funded projects (see Section II in Part I). As such, the long-term impacts of NSP on government legitimacy might be heightened by instituting a more regularized and frequent pattern of block grant disbursement.

The most pleasantly surprising set of results in the study are those pertaining to the durable impacts wrought by NSP on perceptions of gender roles and on women's lives generally (see Sections I.ii, II.i, V.iv, and V.v in Part III). These include not just increased openness to female participation in local governance and increased female participation, but also increases in access to counseling, improved inter-village mobility, increases in girls' school attendance and women's access to medical services, as well as improved economic perceptions and optimism among women. Of particular note is that while other positive impacts – such as those on perceptions of government – are not sustained beyond project completion, the effects on gender norms and outcomes are durable. These results provide a strong vindication of NSP's policy of mandating female participation in CDC elections, CDC composition, and the selection and management of sub-projects. That is, despite the cultural constraints imposed by the context, NSP's approach to ensuring substantive female participation has resulted in changes in social norms and in women's lives that extend beyond both the scope of program activities and the lifecycle of program implementation.

Figure 154: Village in Balkh District



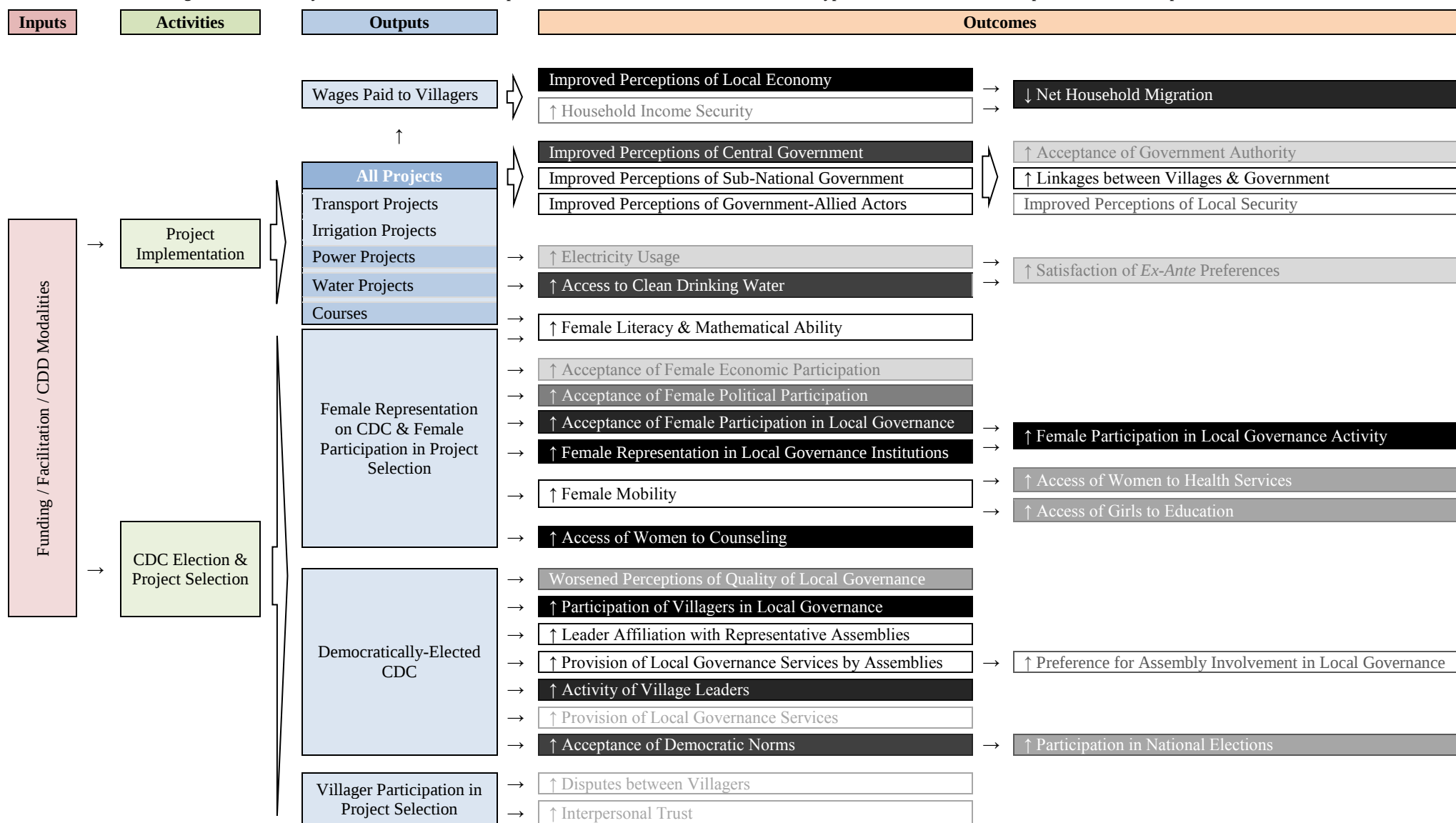
Figure 155: Kuchi Camels in Daulina District



Figure 156: Children in Daulina



Figure 157: Summary of Midline and Endline Impacts of NSP in Results Chain Format, with Hypothesized Links Between Inputs, Activities, Outputs, and Outcomes



*Note:* Only outcomes for which there are statistically significant midline or endline impacts are represented. Outcomes with a white background are statistically significant only at midline, with light grey lettering denoting statistical significance at the 10 percent level; grey lettering denoting statistical significance at the 5 percent level; and black lettering denoting statistical significance at the 1 percent level. Outcomes with a grey or black background are statistically significant at endline, with background shading indicating the level of statistical significance at midline and at endline. For example, outcomes with a black background are statistically significant at the 1 percent level in both midline and endline, while those with a light grey background are statistically significant at the 10 percent level in the endline only.

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## Appendix I – Hypotheses<sup>209</sup>

The analysis is structured around a test of 50 hypotheses, which are grouped into five families ([Access to Utilities, Services, and Infrastructure](#); [Economic Welfare](#); [Local Governance](#); [Political Attitudes and State-Building](#); and [Social Norms](#)) and numerous groups within each section:

### Family 1: Access to Utilities, Services, and Infrastructure

#### *Group A: Utilities*

H1: **NSP improves access to clean drinking water;**

H2: **NSP improves access to electricity;**

#### *Group B: Services*

H3: **NSP improves access of women to counseling services;**

H4: **NSP improves access to education;**

H5: **NSP improves access to health services and health outcomes;**

#### *Group C: Infrastructure*

H6: **NSP improves access to irrigation;**

H7: **NSP improves village accessibility and mobility of rural population;**

#### *Group D: General*

H8: **NSP satisfies the *ex-ante* project preferences of male villagers.**

### Family 2: Economic Welfare

#### *Group E: Perceptions*

H9: **NSP improves perceptions of the local economy;**

#### *Group F: Stocks and Flows*

H10: **NSP increases household income security;**

H11: **NSP increases household consumption expenditure;**

H12: **NSP increases stocks of household assets;**

H13: **NSP reduces borrowing for food and medical needs;**

H14: **NSP reduces food insecurity;**

#### *Group G: Production and Marketing*

H15: **NSP improves agricultural productivity and access to markets;**

H16: **NSP increases non-agricultural productivity and access to markets;**

#### *Group H: Migration*

H17: **NSP reduces net migration of households from the village;**

H18: **NSP reduces net migration of household members from the village.**

### Family 3: Local Governance

#### *Group I: Structure*

H19: **NSP increases dynamism in village leadership;**

H20: **NSP increases involvement of representative assemblies in village leadership;**

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<sup>209</sup> This section reproduces section IV in [Beath, Christia & Enikolopov \(2012b\)](#)

H21: **NSP increases involvement of women in local governance;**

*Group J: Function*

H22: **NSP increases the number of local governance services provided;**

H23: **NSP increases activity of village leaders;**

H24: **NSP increases involvement of representative assemblies in the provision of local governance services;**

*Group K: Quality and Participation*

H25: **NSP increases participation in local governance;**

H26: **NSP improves perceptions of the quality of local governance;**

H27: **NSP reduces informal taxation by village leaders;**

H28: **NSP increases preferences for representative assemblies to provide local governance services.**

Family 4: Political Attitudes and State-Building

*Group L: Democratic Values*

H29: **NSP increases acceptance of democratic norms of governance;**

H30: **NSP increases participation in national elections and political knowledge;**

*Group M: State Legitimacy*

H31: **NSP increases acceptance of centralized government authority by male villagers;**

H32: **NSP increases linkages between villages and central and sub-national government;**

*Group N: Perceptions of Government*

H33: **NSP improves perceptions of central government;**

H34: **NSP improves perceptions of sub-national government;**

H35: **NSP improves perceptions of government-allied actors.**

*Group O: Conflict*

H36: **NSP reduces violent incidents in and around villages;**

H37: **NSP reduces informal taxation by insurgent groups;**

H38: **NSP improves perceptions of local security.**

Family 5: Social Norms

*Group P: Social Cohesion*

H39: **NSP reduces intra-village disputes and increases dispute resolution rates;**

H40: **NSP improves interpersonal trust within villages;**

*Group Q: Literacy & Computational Ability*

H41: **NSP improves literacy and mathematical ability;**

*Group R: Happiness*

H42: **NSP increases happiness;**

*Group S: Gender Attitudes*

H43: **NSP increases acceptance of female political participation;**

H44: **NSP increases acceptance of female economic and social participation;**

H45: **NSP relaxes cultural constraints to education of girls;**

H46: **NSP increases acceptance of female participation in local governance;**

*Group T: Gender Outcomes*

H47: **NSP increases women's involvement in local governance;**

H48: **NSP increases social activity among women;**

H49: **NSP increases women's mobility;**

H50: **NSP increases women's participation in economic activity and decision-making.**

Table A1<sup>210</sup> below lists the indicators that will be used to test each hypothesis and, for each indicator, the direction of the hypothesized effect, as well as the source of data, level, format, transformation (if any) of the indicator, and whether midline survey data exists (see Section VIII.i) and whether baseline survey data exists to conduct robustness checks.

Appendix B in Beath, Christia & Enikolopov (2012b) lists, for each indicator, the questions from the endline and midline surveys that provide data for the respective indicators, as well as the questions from the baseline survey which provide data for the robustness checks, where applicable.

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<sup>210</sup> Table A1 is identical to Table 1 in Beath, Christia & Enikolopov (2012b)

Table A1 - Constituent Indicators for Hypotheses

| Group                                                       | Hypothesis         | Indicator                                                                           | dir | so | lev | for | tr | st | rc |
|-------------------------------------------------------------|--------------------|-------------------------------------------------------------------------------------|-----|----|-----|-----|----|----|----|
| Family 1: Access to Utilities, Services, and Infrastructure |                    |                                                                                     |     |    |     |     |    |    |    |
| Utilities (A)                                               | Drinking Water (1) | Primary Source of Drinking Water is Protected Source                                | +   | F  | H   | B   |    | *  | *  |
|                                                             |                    | Estimated Hours Spent Collecting Water in Past Week                                 | -   | F  | H   | R   | *  | *  | *  |
|                                                             |                    | Seasons in Past Year Water Was of Poor Quality                                      | -   | F  | H   | I   |    | *  | +  |
|                                                             |                    | Seasons in Past Year Water Was Not Available                                        | -   | F  | H   | I   |    | *  | +  |
|                                                             | Electricity (2)    | Hours of Electricity in Past Month                                                  | +   | M  | H   | R   | *  | *  | *  |
|                                                             | Counseling (3)     | Women Are Able to Avail Counseling Services in the Village                          | +   | F  | H   | B   |    | *  |    |
| Services (B)                                                | Education (4)      | Days that School-Age Boy Attended School in Past Week                               | +   | F  | I   | I   |    |    | +  |
|                                                             |                    | Days that School-Age Girl Attended School in Past Week                              | +   | F  | I   | I   |    |    | +  |
|                                                             |                    | Girl Completed Basic Calculation Correctly                                          | +   | F  | H   | B   |    |    | +  |
|                                                             | Health (5)         | Child Suffered Diarrhea in Past 2 Weeks                                             | -   | F  | I   | B   |    |    | +  |
|                                                             |                    | Child Visited Doctor in Past Year                                                   | +   | F  | I   | B   |    |    | +  |
|                                                             |                    | Most Recent Born Was Alive After 12 Months                                          | +   | F  | H   | B   |    | *  |    |
|                                                             |                    | Episodes of Prenatal Care in Most Recent Pregnancy                                  | +   | F  | H   | I   | *  | *  | +  |
|                                                             |                    | Most Recent Birth Attended by Medical Professional                                  | +   | F  | H   | B   |    | *  | +  |
|                                                             |                    | Most Recent Birth Delivered at Medical Facility                                     | +   | F  | H   | B   |    | *  | +  |
|                                                             |                    | Mother Received Tetanus Injection during Most Recent Pregnancy                      | +   | F  | H   | B   |    | *  | +  |
|                                                             |                    | Most Recent Illness or Injury Treated by Medical Professional                       | +   | F  | H   | B   |    | *  | +  |
|                                                             |                    | Most Recent Illness or Injury Treated at Medical Facility                           | +   | F  | H   | B   |    | *  | +  |
| Infrastructure (C)                                          | Irrigation (6)     | Participant's Land Is Sufficiently Irrigated                                        | +   | G  | I   | B   |    |    | +  |
|                                                             |                    | Proportion of Land Cultivated in Spring 2011 Sufficiently Irrigated                 | +   | M  | H   | R   |    | *  | +  |
|                                                             | Transport (7)      | Months During Which Road Nearest Village Was Not Useable in Past Year               | -   | G  | V   | I   | *  | *  | +  |
|                                                             |                    | Cost of Transporting 50 kg. of Wheat to District Center or Nearest Bazaar           | -   | M  | H   | \$  | *  | *  | +  |
|                                                             |                    | Duration of Most Recent Trip to District Center or Nearest Bazaar                   | -   | M  | H   | I   | *  | *  | +  |
|                                                             |                    | Trips Made to District Center in Past Month                                         | +   | M  | H   | I   | *  | *  | +  |
| General (D)                                                 | Preferences (8)    | Proportion of Respondents Who Preferred Project at Baseline Still Prefer at Endline | -   | M  | P   | R   |    | *  | N  |
| Family 2: Economic Welfare                                  |                    |                                                                                     |     |    |     |     |    |    |    |
| Perceptions (E)                                             | Change (9)         | Economic Situation Has Improved in Past Year                                        | +   | F  | H   | B   |    | *  | +  |
|                                                             |                    | Economic Situation Has Improved in Past Year                                        | +   | M  | H   | B   |    | *  | *  |
|                                                             |                    | Expects Village Economy to Improve in Next Year                                     | +   | F  | H   | B   |    | *  | +  |
|                                                             |                    | Expects Village Economy to Improve in Next Year                                     | +   | M  | H   | B   |    | *  | +  |
| Stocks & Flows (F)                                          | Income (10)        | Income Earned in Past Year                                                          | +   | M  | H   | \$  | *  | *  | *  |
|                                                             |                    | Seasons in Which Income Was Earned                                                  | +   | M  | H   | I   |    | *  | *  |
|                                                             |                    | Sources of Income Include Sectors Other than Subsistence Agriculture                | +   | M  | H   | B   |    | *  | *  |
|                                                             | Consumption (11)   | Annual Expenditure                                                                  | +   | M  | H   | \$  | *  | *  | *  |

<sup>dir</sup> Direction of Hypothesized Effect: +: positive, -: negative

<sup>so</sup> Source of Indicator: **F**: female household questionnaire; **G**: male focus group questionnaire; **M**: male household questionnaire; **W**: female focus group questionnaire

<sup>lev</sup> Level of Indicator: **H**: household; **I**: individual (sub-household); **L**: village decision-maker; **P**: project; **V**: village

<sup>for</sup> Format of Indicator: **B**: binary; **I**: integer; **R**: real number; **\$**: U.S. dollar value (converted from local currency)

<sup>tr</sup> Transformation of Indicator (if any): \*: Indicator is transformed into natural logs and *winsorized* at 1 percent; (**blank**): no transformation

<sup>st</sup> Estimation of Short-Term Effects: \*: midline data for indicator exists and short-term effects will be calculated; (**blank**): midline does not exist and no short-term effects will be calculated

<sup>rc</sup> Robustness Check with Baseline Data: \*: baseline data for identical (or similar) indicator will be used to check robustness of effects; +: baseline data for comparable (but not identical) indicator will be used to check robustness (includes indicators from other questionnaires); **N**: not applicable as indicator incorporates baseline data; (**blank**): no comparable baseline data for indicator exists.

|                                        |                                   |                                                                                                                    |   |   |   |    |   |   |
|----------------------------------------|-----------------------------------|--------------------------------------------------------------------------------------------------------------------|---|---|---|----|---|---|
|                                        |                                   | Ratio of Food Expenditure to Total Expenditure                                                                     | - | M | H | R  | * | * |
|                                        | <b>Assets (12)</b>                | Principal Component of Livestock Assets <i>(Aggregate)</i>                                                         | + | M | H | R  | * | * |
|                                        |                                   | Principal Component of Household Assets <i>(Aggregate)</i>                                                         | + | M | H | R  | * | * |
|                                        | <b>Debt (13)</b>                  | Amount Borrowed in Past Year                                                                                       | - | M | H | \$ | * | * |
|                                        |                                   | Borrowed for Food or Medical Needs in Past Year                                                                    | - | M | H | B  | * | * |
|                                        | <b>Food Security (14)</b>         | Daily Caloric Intake Per Household Member During Past Week                                                         | + | F | H | R  | * | + |
|                                        |                                   | Months in Past Year Household Faced Food Shortage                                                                  | + | F | H | I  |   | + |
|                                        |                                   | Household Experienced Hunger On At Least One Day in Past Week                                                      | + | F | H | B  | * | * |
| <b>Production &amp; Marketing (G)</b>  | <b>Agriculture (15)</b>           | Yield of Most Recent Harvest (mt)                                                                                  | + | M | H | I  | * | * |
|                                        |                                   | Agricultural Productivity of Most Recent Harvest (mt / ha)                                                         | + | M | H | R  | * | * |
|                                        |                                   | Proportion of Most Recent Harvest Sold                                                                             | + | M | H | R  | * | + |
|                                        |                                   | Revenue from Most Recent Harvest                                                                                   | + | M | H | \$ | * | * |
|                                        | <b>Non-Agriculture (16)</b>       | Household Sold Handicrafts in Past Year                                                                            | + | F | H | B  | * | + |
|                                        |                                   | Revenue from Handicraft Sales in Past Year                                                                         | + | F | H | \$ | * | + |
|                                        |                                   | Household Sold Animals or Animal Products in Past Year                                                             | + | M | H | B  | * | + |
|                                        |                                   | Revenue from Sales of Animals or Animal Products in Past Year                                                      | + | M | H | \$ | * | + |
| <b>Migration (H)</b>                   | <b>Household (17)</b>             | Net Migration of Households                                                                                        | + | G | V | I  | * | * |
|                                        | <b>Individual (18)</b>            | Net Migration of Household Members                                                                                 | + | F | H | I  | * |   |
| <b>Family 3: Local Governance</b>      |                                   |                                                                                                                    |   |   |   |    |   |   |
| <b>Structure (I)</b>                   | <b>Continuity (19)</b>            | Village Decision-Maker Identified in Baseline Survey Identified by At Least One Respondent at Endline              | - | M | L | B  | * | N |
|                                        |                                   | Village Decision-Maker Frequently Identified in Baseline Survey Identified by At Least One Respondent at Endline   | - | M | L | B  | * | N |
|                                        |                                   | Village Decision-Maker Infrequently Identified in Baseline Survey Identified by At Least One Respondent at Endline | - | M | L | B  | * | N |
|                                        | <b>Affiliation (20)</b>           | Most Important Decision-Maker is Elder or Council Member                                                           | + | F | H | B  | * | + |
|                                        |                                   | Most Important Decision-Maker is Elder or Council Member                                                           | + | M | H | B  | * | * |
|                                        | <b>Institutions (21)</b>          | At Least One Woman is a Member of At Least One Council                                                             | + | M | H | B  | * | + |
| <b>Function (J)</b>                    | <b>Service Provision (22)</b>     | There Exists an Entity to Mediate Disputes of Property Claimed by Female Villagers                                 | + | F | H | B  | * | + |
|                                        |                                   | There Exists an Entity to Notarize Documents                                                                       | + | M | H | B  | * |   |
|                                        |                                   | There Exists an Entity to Mediate Disputes                                                                         | + | M | H | B  | * | * |
|                                        |                                   | There Exists an Entity to Distribute Assistance among Villagers                                                    | + | M | H | B  | * | + |
|                                        | <b>Activities (23)</b>            | Weighted Average of Services Provided for Women by Village Assembly <i>(Aggregate)</i>                             | + | F | H | R  | * | + |
|                                        |                                   | Weighted Average of Services Provided by Village Assembly <i>(Aggregate)</i>                                       | + | M | H | R  | * | + |
|                                        |                                   | Weighted Average of Services Provided by Headman <i>(Aggregate)</i>                                                | - | M | H | R  | * | + |
|                                        |                                   | Weighted Average of Services Provided by Mullah and/or Religious Scholar <i>(Aggregate)</i>                        | - | M | H | R  | * | + |
|                                        |                                   | Weighted Average of Services Provided by Commander <i>(Aggregate)</i>                                              | - | M | H | R  | * | + |
|                                        |                                   | Village Assembly Meets Regularly                                                                                   | + | M | H | B  | * | + |
|                                        | <b>Division of Authority (24)</b> | Mediator of Women's Property Dispute is Elder or Council Member                                                    | + | F | H | B  | * | + |
|                                        |                                   | Notarizer of Documents is Elder or Council Member                                                                  | + | M | H | B  | * | + |
|                                        |                                   | Mediator is Elder or Council Member                                                                                | + | M | H | B  | * | * |
|                                        |                                   | Distributor of Aid is Elder or Council Member                                                                      | + | M | H | B  | * | + |
| <b>Quality &amp; Participation (K)</b> | <b>Participation (25)</b>         | Meetings of Village Assembly Attended in Past Year                                                                 | + | M | H | I  | * | + |
|                                        |                                   | Desired Change in Decision of Influential Villagers in Past Year                                                   | + | F | H | B  | * | + |
|                                        |                                   | Desired Change in Decision of Influential Villagers in Past Year                                                   | + | M | H | B  | * | + |
|                                        | <b>Perception of Quality (26)</b> | Perceives that Village Leaders Act in Interest of All                                                              | + | F | H | B  | * | + |
|                                        |                                   | Perceives that Village Leaders Act in Interest of All                                                              | + | M | H | B  | * | * |
|                                        |                                   | Perceives that Village Leaders Are At Least Moderately Responsive to Needs of Women                                | + | F | H | B  | * | + |
|                                        |                                   | Perceives that Headman Acts in Interest of All                                                                     | + | M | H | B  | * | + |
|                                        |                                   | Perceives that Dispute Resolution is Always Fair                                                                   | + | M | H | B  | * | + |
|                                        |                                   | Perceives that Theft Resolution is Always Fair                                                                     | + | M | H | B  | * | + |
|                                        |                                   | Expects Neediest Villagers to Benefit from Allocation of Assistance by Village Leaders                             | + | M | H | B  | * | + |

|                                                  |                                             |                                                                                                     |                                                                |   |   |   |   |   |   |
|--------------------------------------------------|---------------------------------------------|-----------------------------------------------------------------------------------------------------|----------------------------------------------------------------|---|---|---|---|---|---|
|                                                  |                                             | Satisfied with Work of Village Leaders in Past Year                                                 | +                                                              | F | H | B | * | + |   |
|                                                  |                                             | Satisfied with Work of Village Leaders in Past Year                                                 | +                                                              | M | H | B | * | * |   |
|                                                  |                                             | Disagreed with Decision(s) of Village Leaders in Past Year                                          | -                                                              | F | H | B | * | + |   |
|                                                  |                                             | Disagreed with Decision(s) of Village Leaders in Past Year                                          | -                                                              | M | H | B | * | * |   |
|                                                  | Taxation (27)                               | Agricultural Tax Paid to Village Leader                                                             | -                                                              | M | H | B |   | + |   |
|                                                  | Preferences over Division of Authority (28) | Prefers Representative Assembly or Villagers to Resolve Marriage Disputes                           | +                                                              | M | H | B | * |   |   |
|                                                  |                                             | Prefers Representative Assembly or Villagers to Resolve Land & Irrigation Disputes                  | +                                                              | M | H | B | * |   |   |
|                                                  |                                             | Prefers Representative Assembly or Villagers to Select & Manage Projects                            | +                                                              | M | H | B | * |   |   |
|                                                  |                                             | Prefers Representative Assembly or Villagers to Inform Government About Village Situation           | +                                                              | M | H | B | * |   |   |
|                                                  |                                             | Suggests Representative Assembly or Villagers as Recourse for Unjust Mediation of Dispute           | +                                                              | F | H | B | * |   |   |
|                                                  |                                             | Suggests Representative Assembly or Villagers as Recourse for Unjust Mediation of Dispute           | +                                                              | M | H | B | * |   |   |
| Family 4: Political Attitudes and State-Building |                                             |                                                                                                     |                                                                |   |   |   |   |   |   |
| Democratic Values (L)                            | Opinion (29)                                | Prefers All Villagers to Participate in Important Decisions                                         | +                                                              | F | H | B |   | + |   |
|                                                  |                                             | Prefers All Villagers to Participate in Important Decisions                                         | +                                                              | M | H | B |   | + |   |
|                                                  |                                             | Prefers Election to Select Headman                                                                  | +                                                              | F | H | B | * | + |   |
|                                                  |                                             | Prefers Election to Select Headman                                                                  | +                                                              | M | H | B | * | + |   |
|                                                  |                                             | Prefers Selection of President by Secret Ballot Election                                            | +                                                              | M | H | B |   | + |   |
|                                                  |                                             | Prefers Selection of Provincial Governor by Election                                                | +                                                              | M | H | B | * | + |   |
|                                                  |                                             |                                                                                                     | Believes it Appropriate to Discuss Governance Issues in Public | + | M | H | B |   | + |
|                                                  | Participation (30)                          | Named At Least One Member of Provincial Delegation to <i>Wolesi Jirga</i> (Parliament)              | +                                                              | F | H | B | * |   |   |
|                                                  |                                             | Named At Least One Member of Provincial Delegation to <i>Wolesi Jirga</i> (Parliament)              | +                                                              | M | H | B | * | * |   |
|                                                  |                                             | Voted in 2010 Parliamentary Election                                                                | +                                                              | F | H | B |   |   |   |
| Voted in 2010 Parliamentary Election             |                                             | +                                                                                                   | M                                                              | H | B |   | * |   |   |
| State Legitimacy (M)                             | Acceptance of State Authority (31)          | Identifies Predominantly as Afghan (As Opposed to Member of Ethnic Group)                           | +                                                              | M | H | B |   |   |   |
|                                                  |                                             | Prefers that Government / Police Prosecute Criminals ( <i>Indirect Question</i> )                   | +                                                              | M | H | B | * | + |   |
|                                                  |                                             | Prefers that Government (Not Local Authorities) Prosecute Village Crimes ( <i>Direct Question</i> ) | +                                                              | M | H | B | * | + |   |
|                                                  |                                             | Prefers that Central Government (Not Religious or Tribal Leaders) Set Curriculum                    | +                                                              | M | H | B |   | + |   |
|                                                  |                                             | Prefers Centralized Government to Federated State                                                   | +                                                              | M | H | B |   | + |   |
|                                                  |                                             | Prefers People to Have Identification Cards and Register Life Events with Government                | +                                                              | M | H | B | * | + |   |
|                                                  |                                             | Prefers that Income Earners Pay Tax to Government                                                   | +                                                              | M | H | B | * | * |   |
|                                                  | Linkages with Government (32)               | Village Visited by District Government In Past Year                                                 | +                                                              | G | V | B | * |   |   |
|                                                  |                                             | Village Visited by Central Government Officials in Past Year                                        | +                                                              | G | V | B | * |   |   |
|                                                  |                                             | Village Visited by Afghan National Security Forces in Past Year                                     | +                                                              | G | V | B | * |   |   |
| Perceptions of Government (N)                    | Central Government (33)                     | Perceives that President Acts in Interest of All                                                    | +                                                              | M | H | B | * | * |   |
|                                                  |                                             | Perceives that <i>Wolesi Jirga</i> (Parliament) Members Act in Interest of All                      | +                                                              | M | H | B | * | * |   |
|                                                  |                                             | Perceives that Central Government Officials Act in Interest of All                                  | +                                                              | M | H | B | * | * |   |
|                                                  |                                             | Perceives that Government Judges Act in Interest of All                                             | +                                                              | M | H | B | * | + |   |
|                                                  |                                             | Perceives that Police Act in Interest of All                                                        | +                                                              | M | H | B | * | + |   |
|                                                  |                                             | Perceives that Army Soldiers Act in Interest of All                                                 | +                                                              | M | H | B |   | + |   |
|                                                  |                                             | Perceives that Living Standards Have Improved Greatly in Past 9 Years                               | +                                                              | F | H | B |   | + |   |
|                                                  |                                             | Perceives that Living Standards Have Improved Greatly in Past 9 Years                               | +                                                              | M | H | B |   | * |   |
|                                                  | Sub-National Government (34)                | Perceives that District Governor Acts in Interest of All                                            | +                                                              | M | H | B | * | * |   |
|                                                  |                                             | Perceives that Province Governor Acts in Interest of All                                            | +                                                              | M | H | B | * | * |   |
|                                                  | Allied Actors (35)                          | Perceives that NGO Employees Act in Interest of All                                                 | +                                                              | M | H | B | * | * |   |
|                                                  |                                             | Perceives that NATO / ISAF / US Soldiers Act in Interest of All                                     | +                                                              | M | H | B | * | + |   |
|                                                  |                                             | Believes that Government Will Control All of District Once Foreign Forces Leave                     | +                                                              | M | H | B |   |   |   |
| Conflict (O)                                     | Attacks (36)                                | Village Experienced Attack in Past Year                                                             | -                                                              | G | V | B | * | + |   |
|                                                  |                                             | Village Experienced Attack in Past Year                                                             | -                                                              | M | H | B | * | + |   |
|                                                  | Extortion (37)                              | Agricultural Tax Paid to Insurgent Group                                                            | -                                                              | M | H | B |   |   |   |

|                                                 |                                                |                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                         |
|-------------------------------------------------|------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
|                                                 | <b>Perception (38)</b>                         | Perceives Improvement in Past 2 Years in Safety of Women Working for NGOs or Government or Attending Courses<br>Perceives Improvement in Past 2 Years in Safety of Girls Attending School or Socializing<br>Perceives Improvement in Past 2 Years in Local Security Situation<br>Reports Personal Impact in Past Year of Local Insecurity                                                             | + F H B * +<br>+ F H B * +<br>+ M H B * +<br>- M H B * +                                |
| <b>Family 5: Social Norms</b>                   |                                                |                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                         |
| <b>Social Capital (P)</b>                       | <b>Disputes (39)</b>                           | Intra-Village Dispute in Past Year<br>Intra-Village Feud in Past 2 Years<br>Dispute With Other Villager in Past Year<br>Proportion of Past Year's Disputes Resolved                                                                                                                                                                                                                                   | - G V B * *<br>- M H B * +<br>- M H B * +<br>+ G V P * +                                |
|                                                 | <b>Trust (40)</b>                              | Willing to Ask Non-Family Member to Collect Money<br>Willing to Ask Non-Family Member to Collect Money<br>Non-Family Member Has Collected Money for Respondent<br>Non-Family Member Has Collected Money for Respondent<br>Believes Villagers Are Always Willing to Help Others<br>Paid Zakat and/or Paid Agricultural Tax to Villagers or Needy Subset                                                | + F H B * +<br>+ M H B * *<br>+ F H B * +<br>+ M H B * *<br>+ M H B * *<br>+ M H B * +  |
| <b>Literacy &amp; Computational Ability (Q)</b> | <b>Literacy and Computational Ability (41)</b> | Completed Calculation Correctly<br>Completed Calculation Correctly<br>Read Basic Sentence<br>Read Basic Sentence                                                                                                                                                                                                                                                                                      | + F H B * +<br>+ M H B * *<br>+ F H B * +<br>+ M H B * *                                |
| <b>Happiness (R)</b>                            | <b>Happiness (42)</b>                          | Happy or Very Happy With Life<br>Happy or Very Happy With Life<br>Unhappy or Very Unhappy with Life<br>Unhappy or Very Unhappy With Life                                                                                                                                                                                                                                                              | + F H B * +<br>+ M H B * *<br>- F H B * +<br>- M H B * *                                |
| <b>Gender Attitudes (S)</b>                     | <b>Political Participation (43)</b>            | Believes it Appropriate for Women to Vote in National Elections<br>Prefers Women to Be Involved in Selection of Provincial Governor<br>Believes it Appropriate for Women to Seek National Elected Office<br>Believes it Appropriate for Women to Seek National Elected Office<br>Perceives that Majority of Men Believe It Appropriate for Women to Seek National Office                              | + M H B * +<br>+ M H B * +<br>+ F H B +<br>+ M H B +<br>+ F H B +                       |
|                                                 | <b>Employment and Health (44)</b>              | Agrees with Women Working in Government & NGOs<br>Agrees with Women Working in Government & NGOs<br>Perceives that Majority of Men Agree with Women Working in Government & NGOs<br>Willing to Allow Female Relative to See Male Doctor<br>Willing to Be Seen by Male Doctor                                                                                                                          | + F H B * +<br>+ M H B * +<br>+ F H B +<br>+ M H B * +<br>+ F H B * +                   |
|                                                 | <b>Girls' Education and Aspirations (45)</b>   | Girl Aspires to Work in Professional Occupation<br>Girl Prefers to Be Educated Up to University<br>Girl Wants to Live in City<br>Believes Girls Should be Educated to Same or Higher Level than Boys<br>Believes Girls Should be Educated Up to University<br>Men Believe Girls Should be Educated Up to University<br>Prefers Equal Number of Male and Female Births or More Female Than Male Births | + F H B +<br>+ F H B +<br>+ F H B +<br>+ M H B +<br>+ F H B +<br>+ F H B +<br>+ F H B * |
|                                                 | <b>Local Governance Attitudes (46)</b>         | Prefers Women To Be Involved In Selecting Headman<br>Prefers Women To Be Involved In Selecting Headman<br>Prefers Women To Be Members of Village Council<br>Prefers Women To Be Members of Village Council<br>Perceives that Majority of Men Prefer Women Should Be Members of Council<br>Prefers Women to Participate in Dispute Resolution                                                          | + F H B * +<br>+ M H B * +<br>+ F H B * +<br>+ M H B * *<br>+ F H B +<br>+ M H B +      |
|                                                 | <b>Local Governance Outcomes (47)</b>          | Woman in Village Well-Respected by All<br>Woman in Village Well-Respected by All<br>Women Involved in Resolution of Most Recent Dispute                                                                                                                                                                                                                                                               | + F H B * +<br>+ M H B * +<br>+ F H B +                                                 |
| <b>Gender Outcomes (T)</b>                      |                                                |                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                         |

|  |                                                     |                                                                                                           |   |   |   |   |       |
|--|-----------------------------------------------------|-----------------------------------------------------------------------------------------------------------|---|---|---|---|-------|
|  |                                                     | Women Involved in Resolution of Most Recent Dispute                                                       | + | M | H | B | +     |
|  |                                                     | Women Participate in Dispute Resolution                                                                   | + | F | H | B | +     |
|  |                                                     | Women Participate in Dispute Resolution                                                                   | + | M | H | B | *     |
|  |                                                     | Women's Views Considered in Allocating Food Aid                                                           | + | F | H | B | +     |
|  |                                                     | Women's Views Considered in Allocating Food Aid                                                           | + | M | H | B | +     |
|  | <b>Socialization (48)</b>                           | Socializes With Other Women in the Village                                                                | + | F | H | B | * +   |
|  |                                                     | Knows At Least One Household in Neighboring Village                                                       | + | F | H | B | +     |
|  |                                                     | Discussed Marriage, Birth or Family Issues with Villager in Past Week                                     | + | F | H | B | +     |
|  |                                                     | Discussed Disputes or Local Governance Issues with Villager in Past Week                                  | + | F | H | B | +     |
|  | <b>Mobility (49)</b>                                | Trips Outside Compound in Past 30 Days                                                                    | + | F | H | I | * * + |
|  |                                                     | Regularly Leaves Compound Alone or Accompanied Only By Small Child                                        | + | F | H | B | * +   |
|  |                                                     | Never or Only Sometimes Wears <i>Chadori</i> (Burqa) When Walking outside Compound                        | + | F | H | B | * +   |
|  |                                                     | Visited Nearest Village in Past Year                                                                      | + | F | H | B | * +   |
|  |                                                     | Visited District Center in Past Month                                                                     | + | F | H | B | * +   |
|  |                                                     | Village Women Held Meeting with Women from Other Villages in Past 12 Months                               | + | W | V | B | * +   |
|  |                                                     | Village Women Held Meeting with District Government in Past 12 Months                                     | + | W | V | B | * +   |
|  | <b>Economics and Household Decision-Making (50)</b> | Generated Income for Household in Past Year                                                               | + | F | H | B | * +   |
|  |                                                     | Exerts Control over Income Earned                                                                         | + | F | H | B | * +   |
|  |                                                     | Owns At Least One Type of Asset                                                                           | + | F | H | B | * +   |
|  |                                                     | Exerts Full or Partial Control Over Decisions Pertaining to the Sale or Use of Income Generated by Assets | + | F | H | B | * +   |
|  |                                                     | Women Are Consulted or Responsible for Children's Marriage and Education and Procreation                  | + | F | H | B | * +   |
|  |                                                     | Women Are Consulted or Responsible for Decisions on Purchases of Food, Clothes, and Medicine              | + | F | H | B | * +   |

## Appendix II – Test of Robustness of Indicator Results to Inclusion of Baseline Data

As described in Sections VIII.v and IX.ii of Part II, for indicators for which baseline data is available, baseline data is to be used as an additional control variable in order to test the robustness of results to idiosyncratic variation in indicators at baseline. The results of these tests are reported in the following sections: I reports results for indicators pertaining to Access to Utilities, Services, and Infrastructure; II for Economic Welfare; III for Local Governance; IV for Political Attitudes and State-Building; and V for Social Norms.

The tables list the corresponding hypothesis number and description for the midline or endline indicator; the instrument,<sup>211</sup> question number, and question text from which the baseline control variable is constructed (a ‘-’ is used to denote cases whereby no baseline control variable was available), with an [S] post-script denoting baseline questions of strong similarity to the corresponding endline or midline indicator and an [R] post-script denoting baseline questions which resemble the corresponding endline or midline indicator (or which are drawn from a different survey instrument); the coefficients and standard errors for the endline, midline, and time trend estimates with baseline controls including, plus the number of observations; and the coefficients and standard errors for the endline and midline estimates with baseline controls excluded. The final two columns indicate whether or not the significance of the endline or midline coefficients is affected by the addition of baseline controls: “0” denotes no change; “-1” denotes a loss of one level of significance (e.g., from 1 percent to 5 percent); “-2” denotes a loss of two levels; and “-3” denotes a loss of three levels; with positive values indicating a gain of the corresponding level; and “!” indicating either a loss or gain of statistical significance.<sup>212</sup>

### I. Access to Utilities, Services, and Infrastructure

Table A2: Robustness of Access to Utilities, Services, and Infrastructure Indicators to Baseline Controls

| Midline / Endline Indicator |                                                          | Baseline Control Variable |      |                                                                                                                     | Results with Baseline Controls |                      |                      |       | Results w/out Controls |                      | Change |     |
|-----------------------------|----------------------------------------------------------|---------------------------|------|---------------------------------------------------------------------------------------------------------------------|--------------------------------|----------------------|----------------------|-------|------------------------|----------------------|--------|-----|
| H#                          | Description                                              | Ins.                      | Q#   | Question                                                                                                            | Endline                        | Midline              | Trend                | Obs.  | Endline                | Midline              | End    | Mid |
| 1                           | Primary Source of Drinking Water is Protected Source (F) | M                         | 2.01 | What is your household’s main source of drinking water? [S]                                                         | 0.042*<br>[0.022]              | 0.044**<br>[0.021]   | -0.025<br>[0.018]    | 8,038 | 0.050**<br>[0.023]     | 0.049**<br>[0.022]   | -1     | 0   |
| 1                           | Hours Spent Collecting Water in Past Week (F)            | M                         | 2.05 | How long does it take (on foot) to get to the water source, take water and come back? [S]                           | -0.052*<br>[0.030]             | 0.059<br>[0.046]     | -1.190***<br>[0.039] | 7,987 | -0.053*<br>[0.030]     | 0.053<br>[0.046]     | 0      | 0   |
| 1                           | Seasons in Past Year Water Was of Poor Quality (F)       | M                         | 6.35 | Has your household faced one of the following problems . . . in the last 12 months?: Shortage of Drinking Water [R] | -0.055<br>[0.062]              | -0.151***<br>[0.054] | 0.106<br>[0.065]     | 7,581 | -0.054<br>[0.062]      | -0.151***<br>[0.055] | 0      | 0   |
| 1                           | Seasons in Past Year Water Was Not Available (F)         | M                         | 6.35 | Has your household faced one of the following problems . . . in the last 12 months?: Shortage of Drinking Water [R] | -0.048<br>[0.035]              | -0.058**<br>[0.027]  | 0.207***<br>[0.038]  | 7,375 | -0.048<br>[0.035]      | -0.058**<br>[0.027]  | 0      | 0   |
| 2                           | Hours of Electricity in Past Month (M)                   | M                         | 2.10 | How many days has your house had electricity, on average, during the last 30 days? [S]                              | 0.263**<br>[0.126]             | 0.124<br>[0.111]     | 1.031***<br>[0.143]  | 8,932 | 0.261**<br>[0.130]     | 0.131<br>[0.126]     | 0      | 0   |
| 3                           | Women Can Avail Counseling Services in Village (F)       |                           |      | -                                                                                                                   |                                |                      |                      | 8,051 | 0.059***<br>[0.017]    | 0.067***<br>[0.014]  |        |     |
| 4                           | Days School-Age Girl Attended School Last Week (F)       | G                         | 3.04 | Where do the boys in your village study? [R]                                                                        | 0.250**<br>[0.123]             |                      |                      | 4,506 | 0.283**<br>[0.128]     |                      | 0      |     |
| 4                           | Days School-Age Boy Attended School Last Week (F)        | G                         | 3.05 | Where do the girls in your village study? [R]                                                                       | -0.034<br>[0.104]              |                      |                      | 4,931 | -0.047<br>[0.103]      |                      | 0      |     |

<sup>211</sup> An “(F)” post-script indicates that the source of data is the Female Household survey; a “(G)” post-script indicates that the source of data is the Male Focus Group instrument; a “(M)” post-script indicates that the source of data is the Male Household instrument; and a “(W)” post-script indicates that the source of data is the Female Focus Group instrument.

<sup>212</sup> Shaded rows indicate substantive changes in coefficients, with red denoting a drop in significance level, orange denoting a loss of significance, grey denoting a rise in significance level, and blue denoting a gain of significance. Deeper tones represent changes of greater magnitude.

|   |                                                               |   |      |                                                                                                       |                     |                    |                     |       |                     |                    |     |   |
|---|---------------------------------------------------------------|---|------|-------------------------------------------------------------------------------------------------------|---------------------|--------------------|---------------------|-------|---------------------|--------------------|-----|---|
| 4 | Girl Completed Basic Calculation Correctly (F)                | G | 3.05 | Where do the girls in your village study? [R]                                                         | 0.035<br>[0.021]    |                    |                     | 1,278 | 0.037*<br>[0.021]   |                    | -1! |   |
| 5 | Child Suffered Diarrhea in Past 2 Weeks (F)                   | I | 3.21 | Have you or a women or girl in your family been ill or injured in the last 30 days? [R]               | -0.002<br>[0.012]   |                    |                     | 4,967 | -0.002<br>[0.012]   |                    | 0   |   |
| 5 | Child Visited Doctor in Past Year (F)                         | W | 2.14 | When somebody gets ill, where do you normally take him\her for treatment and examination? [R]         | 0.067***<br>[0.016] |                    |                     | 4,919 | 0.064***<br>[0.015] |                    | 0   |   |
| 5 | Most Recent Born Was Alive after 12 Months (F)                |   |      | -                                                                                                     |                     |                    |                     | 3,545 | -0.005<br>[0.008]   | 0.001<br>[0.007]   |     |   |
| 5 | Episodes of Prenatal Care in Most Recent Pregnancy (F)        | W | 2.14 | When somebody gets ill, where do you normally take him\her for treatment and examination? [R]         | 0.075**<br>[0.032]  | 0.006<br>[0.033]   | -0.047<br>[0.035]   | 3,364 | 0.065**<br>[0.031]  | 0.000<br>[0.032]   | 0   | 0 |
| 5 | Most Recent Birth Attended by Medical Professional (F)        | W | 2.14 | When somebody gets ill, where do you normally take him\her for treatment and examination? [R]         | 0.013<br>[0.015]    | -0.031*<br>[0.017] | -0.005<br>[0.017]   | 3,481 | 0.014<br>[0.015]    | -0.031*<br>[0.017] | 0   | 0 |
| 5 | Most Recent Birth Delivered at Medical Facility (F)           | I | 3.22 | Have you treated your problem? If the answer is 'No' why? [R]                                         | 0.006<br>[0.016]    | -0.020<br>[0.016]  | 0.041***<br>[0.014] | 3,121 | 0.011<br>[0.015]    | -0.014<br>[0.015]  | 0   | 0 |
| 5 | Mother Received Tetanus Injection during Pregnancy (F)        | W | 2.14 | When somebody gets ill, where do you normally take him\her for treatment and examination? [R]         | 0.038<br>[0.024]    | 0.012<br>[0.026]   | 0.028<br>[0.028]    | 3,443 | 0.033<br>[0.024]    | 0.016<br>[0.026]   | 0   | 0 |
| 5 | Most Recent Illness or Injury Treated by Medical Prof. (F)    | I | 3.22 | Have you treated your problem? If the answer is 'No' why? [R]                                         | 0.009**<br>[0.004]  | 0.012**<br>[0.005] | 0.003<br>[0.007]    | 4,052 | 0.010**<br>[0.005]  | 0.012**<br>[0.005] | 0   | 0 |
| 5 | Most Recent Illness or Injury Treated at Medical Facility (F) | W | 2.14 | When somebody gets ill, where do you normally take him\her for treatment and examination? [R]         | -0.002<br>[0.014]   | 0.026*<br>[0.014]  | -0.025<br>[0.018]   | 4,535 | -0.006<br>[0.014]   | 0.027*<br>[0.014]  | 0   | 0 |
| 6 | Share of Participants Whose Land Sufficiently Irrigated (G)   | M | 6.76 | What are the main sources of your land irrigation in the summer? [R]                                  | -0.013<br>[0.050]   |                    |                     | 394   | -0.009<br>[0.048]   |                    | 0   |   |
| 6 | Propn. of Land Cultivated in Spring 2011 Suff. Irrigated (M)  | M | 6.76 | What are the main sources of your land irrigation in the summer? [R]                                  | 0.028<br>[0.023]    |                    |                     | 2,856 | 0.026<br>[0.023]    |                    | 0   |   |
| 7 | Months Road Nearest Village Not Useable in Past Year (G)      | G | 3.28 | Which roads where blocked during the past 12 months (not suitable for traveling)? [R]                 | 0.093<br>[0.204]    | -0.134<br>[0.148]  | -0.267<br>[0.203]   | 870   | 0.020<br>[0.204]    | -0.175<br>[0.147]  | 0   | 0 |
| 7 | Cost of Trans. 50 kg. of Wheat to Dist. Ctr. / Bazaar (M)     | G | 3.27 | Can vehicles travel across the nearest road to your village throughout the year including winter? [R] | -0.001<br>[0.038]   | -0.026<br>[0.039]  | 0.125***<br>[0.034] | 2,374 | 0.003<br>[0.038]    | -0.011<br>[0.042]  | 0   | 0 |
| 7 | Duration of Most Recent Trip to Dist. Ctr. / Bazaar (M)       | G | 3.27 | Can vehicles travel across the nearest road to your village throughout the year including winter? [R] | -0.004<br>[0.049]   | 0.008<br>[0.047]   | -0.090**<br>[0.038] | 8,816 | -0.003<br>[0.049]   | 0.009<br>[0.046]   | 0   | 0 |
| 7 | Trips Made to District Center in Past Month (M)               | G | 3.27 | Can vehicles travel across the nearest road to your village throughout the year including winter? [R] | 0.009<br>[0.048]    | 0.067<br>[0.043]   | -0.117**<br>[0.050] | 8,875 | 0.002<br>[0.047]    | 0.059<br>[0.043]   | 0   | 0 |

## II. Economic Welfare

Table A3: Robustness of Economic Welfare Indicators to Baseline Controls

| Indicator |                                                          | Baseline Control Variable |       |                                                                                                                         | Results with Baseline Controls |                     |                      |       | Results w/out Controls |                     | Change |     |
|-----------|----------------------------------------------------------|---------------------------|-------|-------------------------------------------------------------------------------------------------------------------------|--------------------------------|---------------------|----------------------|-------|------------------------|---------------------|--------|-----|
| H#        | Indicator                                                | Ins.                      | Q#    | Question                                                                                                                | Endline                        | Midline             | Trend                | Obs.  | Endline                | Midline             | End    | Mid |
| 9         | Economic Situation Has Improved in Past Year (F)         | M                         | 8.14  | If you compare your household condition with last year, has [it] improved, remained the same or deteriorated? [R]       | 0.049***<br>[0.018]            | 0.050***<br>[0.018] | -0.133***<br>[0.022] | 8,032 | 0.050***<br>[0.018]    | 0.051***<br>[0.018] | 0      | 0   |
| 9         | Economic Situation Has Improved in Past Year (M)         | M                         | 8.14  | If you compare your household condition with last year, has [it] improved, remained the same or deteriorated? [S]       | 0.025<br>[0.016]               | 0.053***<br>[0.017] | -0.200***<br>[0.020] | 8,981 | 0.025<br>[0.016]       | 0.053***<br>[0.017] | 0      | 0   |
| 9         | Expects Village Economy to Improve in Next Year (F)      | M                         | 8.14  | If you compare your household condition with last year, has [it] improved, remained the same or deteriorated? [R]       | 0.038**<br>[0.015]             | 0.047***<br>[0.017] | -0.221***<br>[0.018] | 8,017 | 0.038**<br>[0.015]     | 0.047***<br>[0.017] | 0      | 0   |
| 9         | Expects Village Economy to Improve in Next Year (F)      | M                         | 8.14  | If you compare your household condition with last year, has [it] improved, remained the same or deteriorated? [R]       | 0.021*<br>[0.012]              | 0.050***<br>[0.014] | -0.156***<br>[0.015] | 8,946 | 0.022*<br>[0.012]      | 0.050***<br>[0.014] | 0      | 0   |
| 10        | Income Earned in Past Year (M)                           | M                         | 6.04+ | How much did you make in a month on average from this activity? [S]                                                     | 0.037<br>[0.026]               | 0.038<br>[0.024]    | 0.281***<br>[0.029]  | 8,870 | 0.037<br>[0.026]       | 0.038<br>[0.024]    | 0      | 0   |
| 10        | Seasons in Which Income Was Earned (M)                   | M                         | 6.03+ | In which season of the year did you make the income generated from this activity? [S]                                   | 0.024<br>[0.038]               | 0.039<br>[0.040]    | 0.298***<br>[0.051]  | 8,875 | 0.030<br>[0.038]       | 0.042<br>[0.040]    | 0      | 0   |
| 10        | Sources of Income Other than Subsistence Agriculture (M) | M                         | 6.01+ | What was the most important income activity of your household? [S]                                                      | 0.001<br>[0.015]               | 0.027*<br>[0.015]   | 0.164***<br>[0.017]  | 8,891 | 0.001<br>[0.015]       | 0.027*<br>[0.015]   | 0      | 0   |
| 11        | Annual Expenditure (M)                                   | M                         | 6.13+ | What was your household’s total expenditure for each of the items below in the last 30 days? [S]                        | -0.002<br>[0.025]              | 0.007<br>[0.022]    | 0.178***<br>[0.025]  | 8,333 | -0.004<br>[0.026]      | 0.004<br>[0.022]    | 0      | 0   |
| 11        | Ratio of Food Expenditure to Total Expenditure (M)       | M                         | 6.13+ | What was your household’s total expenditure for each of the items below in the last 30 days? [S]                        | 0.001<br>[0.007]               | -0.002<br>[0.007]   | -0.074***<br>[0.009] | 8,327 | 0.001<br>[0.007]       | -0.002<br>[0.007]   | 0      | 0   |
| 12        | Livestock Assets (M)                                     | M                         | 6.61+ | Which one of the following livestock do you have? [S]                                                                   | 0.019<br>[0.059]               | 0.064<br>[0.048]    | 0.016<br>[0.043]     | 8,937 | 0.031<br>[0.058]       | 0.077<br>[0.047]    | 0      | 0   |
| 12        | Household Assets (M)                                     | M                         | 6.44+ | Does your household have the following items? [S]                                                                       | 0.004<br>[0.051]               | -0.052<br>[0.044]   | -0.019<br>[0.042]    | 8,383 | 0.031<br>[0.048]       | -0.032<br>[0.043]   | 0      | 0   |
| 13        | Amount Borrowed in Past Year (M)                         | M                         | 7.07  | How much was your main loan? [S]                                                                                        | -0.172*<br>[0.099]             | -0.024<br>[0.063]   | -0.685***<br>[0.095] | 8,106 | -0.176*<br>[0.099]     | -0.027<br>[0.063]   | 0      | 0   |
| 13        | Borrowed for Food or Medical Needs in Past Year (M)      | M                         | 7.01  | Have you or any member of your family received a loan . . . in the last 12 months that should have been reimbursed? [S] | -0.014<br>[0.017]              | -0.003<br>[0.013]   | -0.069***<br>[0.018] | 8,978 | -0.014<br>[0.017]      | -0.003<br>[0.013]   | 0      | 0   |
| 14        | Caloric Intake Per Household Member Last Week (F)        | M                         | 6.42  | How many times did you face problems when supplying food for your family last year? [R]                                 | 0.008<br>[0.015]               | 0.024*<br>[0.014]   | -0.075***<br>[0.018] | 8,035 | 0.008<br>[0.015]       | 0.024*<br>[0.014]   | 0      | 0   |
| 14        | Months in Past Year Household Faced Food Shortage (F)    | M                         | 6.42  | How many times did you face problems when supplying food for your family last year? [R]                                 | 0.043<br>[0.102]               |                     |                      | 3,769 | 0.015<br>[0.103]       |                     | 0      |     |
| 14        | HH Experienced Hunger At Least One Day Last Week (F)     | M                         | 6.42  | How many times did you face problems when supplying food for your family last year? [S]                                 | -0.020<br>[0.023]              | -0.004<br>[0.020]   | 0.237***<br>[0.028]  | 7,977 | -0.017<br>[0.023]      | -0.003<br>[0.020]   | 0      | 0   |
| 15        | Yield of Most Recent Harvest (M)                         |                           |       | -                                                                                                                       |                                |                     |                      | 6,027 | -0.007<br>[0.032]      | -0.002<br>[0.028]   |        |     |
| 15        | Agricultural Productivity of Most Recent Harvest (M)     |                           |       | -                                                                                                                       |                                |                     |                      | 4,543 | 0.013<br>[0.019]       | -0.014<br>[0.023]   |        |     |
| 15        | Proportion of Most Recent Harvest Sold (M)               | M                         | 6.86  | Did you sell the harvest you gained in the last season? [R]                                                             | 0.476<br>[0.378]               | 0.045<br>[0.136]    | 0.045<br>[0.041]     | 4,460 | 0.476<br>[0.377]       | 0.044<br>[0.136]    | 0      | 0   |

|    |                                                         |   |      |                                                                           |                   |                    |                     |       |                   |                    |     |     |
|----|---------------------------------------------------------|---|------|---------------------------------------------------------------------------|-------------------|--------------------|---------------------|-------|-------------------|--------------------|-----|-----|
| 15 | Revenue from Most Recent Harvest (M)                    | M | 6.88 | How much money did you make from selling the last season vegetations? [S] | 0.075<br>[0.103]  | 0.213**<br>[0.102] | 0.038<br>[0.112]    | 5,943 | 0.065<br>[0.104]  | 0.212**<br>[0.103] | 0   | 0   |
| 16 | Household Sold Handicrafts in Past Year (F)             | M | 6.01 | What was the most important income activity of your household? [R]        | 0.011<br>[0.011]  | 0.016*<br>[0.009]  | -0.007<br>[0.011]   | 8,023 | 0.011<br>[0.011]  | 0.017*<br>[0.009]  | 0   | 0   |
| 16 | Revenue from Handicraft Sales in Past Year (M)          | M | 6.01 | What was the most important income activity of your household? [R]        | -0.116<br>[0.159] | 0.087**<br>[0.036] | 3.443***<br>[0.123] | 4,591 | -0.124<br>[0.158] | 0.088**<br>[0.036] | 0   | 0   |
| 16 | Household Sold Animals or Animal Products Last Year (M) | M | 6.01 | What was the most important income activity of your household? [R]        | 0.020<br>[0.017]  | -0.002<br>[0.017]  | -0.020<br>[0.019]   | 8,954 | 0.021<br>[0.017]  | -0.002<br>[0.017]  | 0   | 0   |
| 16 | Revenue from Animal Sales / Products in Past Yr. (M)    | M | 6.01 | What was the most important income activity of your household? [R]        | 0.009<br>[0.049]  | -0.025<br>[0.046]  | 0.278***<br>[0.051] | 3,393 | 0.009<br>[0.049]  | -0.026<br>[0.046]  | 0   | 0   |
| 17 | Net Migration of Households (G)                         | G | 2.06 | How many families moved in to your village last year? [S]                 | 0.162<br>[0.188]  | 0.168<br>[0.190]   | -0.140<br>[0.172]   | 502   | 0.218*<br>[0.124] | 0.250**<br>[0.112] | -1! | -2! |
| 18 | Net Migration of Household Members (F)                  |   |      | -                                                                         |                   |                    |                     | 3,842 | -0.019<br>[0.013] |                    |     |     |

### III. Local Governance

Table A4: Robustness of Local Governance Indicators to Baseline Controls

| Indicator |                                                               | Baseline Control Variable |      |                                                                                                                              | Results with Baseline Controls |                     |                      |       | Results w/out Controls |                     | Change |     |
|-----------|---------------------------------------------------------------|---------------------------|------|------------------------------------------------------------------------------------------------------------------------------|--------------------------------|---------------------|----------------------|-------|------------------------|---------------------|--------|-----|
| H#        | Indicator                                                     | Ins.                      | Q#   | Question                                                                                                                     | Endline                        | Midline             | Trend                | Obs.  | Endline                | Midline             | End    | Mid |
| 20        | Most Important Dec.-Maker is Elder or Council Member (F)      | I                         | 1.03 | Does this person have another position or duty in the village? [R]                                                           | 0.019<br>[0.022]               | 0.046**<br>[0.020]  | -0.121***<br>[0.023] | 7,489 | 0.020<br>[0.021]       | 0.051***<br>[0.019] | 0      | -1  |
| 20        | Most Important Dec.-Maker is Elder or Council Member (M)      | M                         | 3.02 | Do these people have other status in the village too? [S]                                                                    | 0.020<br>[0.021]               | 0.122***<br>[0.019] | -0.014<br>[0.018]    | 8,913 | 0.023<br>[0.021]       | 0.123***<br>[0.019] | 0      | 0   |
| 21        | At Least One Woman is Member of Council (M)                   |                           |      | -                                                                                                                            |                                |                     |                      | 4,992 | 0.382***<br>[0.034]    | 0.538***<br>[0.036] |        |     |
| 22        | There Exists an Entity to Mediate Female Disputes (F)         | I                         | 1.04 | If two or more persons of the village has a legal case, who will help them resolve it, what does such person do? [R]         | 0.005<br>[0.012]               | 0.021<br>[0.012]    | 0.000<br>[0.016]     | 7,911 | 0.006<br>[0.012]       | 0.020<br>[0.012]    | 0      | 0   |
| 22        | There Exists an Entity to Notarize Documents (M)              |                           |      | -                                                                                                                            |                                |                     |                      | 9,014 | 0.012<br>[0.013]       | 0.034**<br>[0.013]  |        |     |
| 22        | There Exists an Entity to Mediate Disputes (M)                | M                         | 3.03 | If two or more people in the village have a dispute, where and who would settle their case? [S]                              | 0.001<br>[0.003]               | -0.003<br>[0.003]   | 0.001<br>[0.004]     | 8,984 | 0.001<br>[0.003]       | -0.003<br>[0.003]   | 0      | 0   |
| 22        | Entity to Distribute Assistance among Villagers (M)           | M                         | 3.06 | Who is responsible for creating development projects or money for production activities? What is his/her responsibility? [R] | 0.007<br>[0.005]               |                     |                      | 2,657 | -0.004<br>[0.005]      |                     | 0      |     |
| 23        | Services Provided for Women by Village Assembly (F)           | I                         | 1.20 | What was the main work that the council or village elders did for women last year? [R]                                       | 0.132***<br>[0.039]            | 0.198***<br>[0.037] | -0.012<br>[0.046]    | 7,897 | 0.138***<br>[0.040]    | 0.190***<br>[0.038] | 0      | 0   |
| 23        | Services Provided by Village Assembly (M)                     | M                         | 3.15 | What was the main work done by (the council or village elders) last year? [R]                                                | 0.114<br>[0.107]               | 0.360***<br>[0.108] | 0.144<br>[0.121]     | 8,920 | 0.115<br>[0.107]       | 0.360***<br>[0.108] | 0      | 0   |
| 23        | Services Provided by Headman (M)                              | M                         | Var. | Aggregate Measure of Responsibilities Accorded to Entity [R]                                                                 | -0.280*<br>[0.156]             | 0.316*<br>[0.162]   | 0.477***<br>[0.180]  | 7,124 | -0.269*<br>[0.155]     | 0.337**<br>[0.160]  | 0      | -1  |
| 23        | Services Provided by Mullah and/or Religious Scholar (M)      | M                         | Var. | Aggregate Measure of Responsibilities Accorded to Entity [R]                                                                 | -0.084<br>[0.160]              | 0.098<br>[0.208]    | -0.835***<br>[0.224] | 8,350 | -0.118<br>[0.164]      | 0.069<br>[0.210]    | 0      | 0   |
| 23        | Services Provided by Commander (M)                            | M                         | Var. | Aggregate Measure of Responsibilities Accorded to Entity [R]                                                                 | 1.235<br>[0.937]               | 2.194**<br>[1.076]  | 3.026***<br>[0.739]  | 981   | 1.293<br>[0.944]       | 2.328**<br>[1.043]  | 0      | 0   |
| 23        | Village Assembly Meets Regularly (M)                          | M                         | 3.12 | How many times did (the council or village elders) meet last year? [R]                                                       | 0.049***<br>[0.014]            | 0.167***<br>[0.017] | -0.049***<br>[0.014] | 8,462 | 0.050***<br>[0.014]    | 0.173***<br>[0.017] | 0      | 0   |
| 24        | Mediator of Women's Disputes is Elder / Council Member (F)    | I                         | 1.04 | If two or more persons of the village have a legal case, who will help them resolve it, what does such person do? [R]        | -0.001<br>[0.021]              | 0.032**<br>[0.014]  | 0.350***<br>[0.023]  | 6,893 | 0.003<br>[0.021]       | 0.031**<br>[0.014]  | 0      | 0   |
| 24        | Notarizer of Documents is Elder or Council Member (M)         | M                         | Var. | What was the main work done by (the council or village elders) last year? [R]                                                | 0.031*<br>[0.017]              | 0.071***<br>[0.020] | -0.062***<br>[0.018] | 7,787 | 0.031*<br>[0.017]      | 0.070***<br>[0.020] | 0      | 0   |
| 24        | Mediator is Elder or Council Member (M)                       | M                         | 3.03 | If two or more people in the village have a legal argument, where and who would settle their case? [S]                       | 0.014<br>[0.018]               | 0.010<br>[0.017]    | 0.041**<br>[0.021]   | 8,887 | 0.013<br>[0.018]       | 0.008<br>[0.017]    | 0      | 0   |
| 24        | Distributor of Aid is Elder or Council Member (M)             | M                         | 3.04 | If someone needs food and money . . . who will give him/her food and money to survive? What would be this person's job? [R]  | -0.012<br>[0.017]              |                     |                      | 2,543 | -0.004<br>[0.014]      |                     | 0      |     |
| 25        | Meetings of Village Assembly Attended in Past Year (M)        | M                         | 3.13 | Have you or a member of your household were present in the meetings of (the council or village elders) last year? [R]        | -0.020<br>[0.036]              | 0.099***<br>[0.034] | -0.076**<br>[0.032]  | 8,658 | -0.013<br>[0.035]      | 0.103***<br>[0.034] | 0      | 0   |
| 25        | Desired Change in Decision of Infl. Villagers in Past Yr. (F) | I                         | 1.26 | What are the unjust decisions or things they carried out that you don't agree with? [R]                                      | 0.013***<br>[0.005]            | 0.004<br>[0.004]    | 0.006<br>[0.005]     | 7,238 | 0.011**<br>[0.004]     | 0.007*<br>[0.004]   | +1     | -1! |

|    |                                                               |   |      |                                                                                                                         |                      |                     |                      |       |                      |                     |     |    |
|----|---------------------------------------------------------------|---|------|-------------------------------------------------------------------------------------------------------------------------|----------------------|---------------------|----------------------|-------|----------------------|---------------------|-----|----|
| 25 | Desired Change in Decision of Infl. Villagers in Past Yr. (M) | M | 3.24 | Have the . . . people with influence done any work or made [an unjust] decision. . . or you did not agree with it? [R]  | 0.025***<br>[0.006]  | 0.018***<br>[0.006] | -0.012**<br>[0.005]  | 8,986 | 0.025***<br>[0.006]  | 0.018***<br>[0.006] | 0   | 0  |
| 26 | Perceives that Village Leaders Act in Interest of All (F)     | I | 1.24 | Do the council or elders make their decisions in favor of the people in the village . . . ? [R]                         | -0.029<br>[0.021]    | 0.082***<br>[0.019] | -0.016<br>[0.020]    | 7,518 | -0.025<br>[0.020]    | 0.085***<br>[0.019] | 0   | 0  |
| 26 | Perceives that Village Leaders Act in Interest of All (M)     | M | 3.20 | Do the council or elders make their decisions in favor of the people in the village . . . ? [S]                         | -0.058***<br>[0.019] | -0.021<br>[0.017]   | -0.038*<br>[0.020]   | 8,906 | -0.058***<br>[0.019] | -0.021<br>[0.017]   | 0   | 0  |
| 26 | Village Leaders Responsive to Women's Needs (F)               | I | 1.35 | To what extent [did] village council or village elders . . . consider women's demand and proposals . . . ? [R]          | 0.036*<br>[0.022]    | 0.042**<br>[0.020]  | -0.009<br>[0.026]    | 7,714 | 0.030<br>[0.021]     | 0.054***<br>[0.019] | +1! | -1 |
| 26 | Perceives that Headman Acts in Interest of All (M)            | M | 5.13 | In your view, do (Shura / Jirga Members) work for the benefit of all the people in the village . . . ? [R]              | -0.023<br>[0.015]    | 0.008<br>[0.012]    | -0.029**<br>[0.014]  | 8,344 | -0.023<br>[0.015]    | 0.008<br>[0.012]    | 0   | 0  |
| 26 | Perceives that Dispute Resolution is Always Fair (M)          | M | 3.20 | Do the council or elders make their decisions in favor of the people in the village . . . ? [R]                         | -0.035*<br>[0.019]   |                     |                      | 2,697 | -0.034*<br>[0.019]   |                     | 0   |    |
| 26 | Perceives that Theft Resolution is Always Fair (M)            | M | 3.20 | Do the council or village elders make their decisions in favor of the people in the village . . . ? [R]                 | -0.069*<br>[0.039]   |                     |                      | 1,144 | -0.083**<br>[0.040]  |                     | -1  |    |
| 26 | Expects Neediest Villagers to Benefit from Allocation (M)     | M | 3.20 | Do the council or village elders make their decisions in favor of the people in the village . . . ? [R]                 | -0.017<br>[0.019]    | -0.015<br>[0.015]   | -0.013<br>[0.017]    | 8,870 | -0.017<br>[0.019]    | -0.016<br>[0.015]   | 0   | 0  |
| 26 | Satisfied with Work of Village Leaders in Past Year (F)       | I | 1.30 | Are you happy, indifferent or dissatisfied with the performance of the council or village elders? [R]                   | 0.013<br>[0.019]     | 0.018<br>[0.016]    | -0.067***<br>[0.025] | 7,656 | 0.015<br>[0.019]     | 0.025<br>[0.016]    | 0   | 0  |
| 26 | Satisfied with Work of Village Leaders in Past Year (M)       | M | 3.29 | Are you happy, indifferent or dissatisfied with the performance of the council or village elders? [S]                   | -0.068***<br>[0.014] | 0.012<br>[0.015]    | -0.014<br>[0.017]    | 8,534 | -0.067***<br>[0.014] | 0.012<br>[0.015]    | 0   | 0  |
| 26 | Disagreed with Decision(s) of Village Leaders Last Year (F)   | I | 1.25 | Have the . . . influential people of the village done any work or made decisions that you think were unjust . . . ? [R] | 0.015<br>[0.012]     | 0.001<br>[0.011]    | -0.014<br>[0.014]    | 7,043 | 0.011<br>[0.011]     | -0.001<br>[0.011]   | 0   | 0  |
| 26 | Disagreed with Decision(s) of Village Leaders Last Year (M)   | M | 3.24 | Have the . . . people with influence done any work or made [an unjust] decision. . . or you did not agree with it? [S]  | 0.045***<br>[0.010]  | 0.034***<br>[0.008] | 0.017**<br>[0.007]   | 8,986 | 0.045***<br>[0.010]  | 0.034***<br>[0.008] | 0   | 0  |
| 27 | Agricultural Tax Paid to Village Leader (M)                   | M | 4.09 | To whom did you pay this tax or present? [R]                                                                            | -0.018<br>[0.023]    |                     |                      | 2,017 | -0.018<br>[0.023]    |                     | 0   |    |
| 28 | Prefers Rep. Assembly to Resolve Marriage Disputes (M)        |   |      | -                                                                                                                       |                      |                     |                      | 9,010 | 0.031<br>[0.019]     | -0.017<br>[0.019]   |     |    |
| 28 | Prefers Rep. Assembly to Resolve Disputes (M)                 |   |      | -                                                                                                                       |                      |                     |                      | 9,012 | 0.017<br>[0.017]     | -0.014<br>[0.016]   |     |    |
| 28 | Prefers Rep. Assembly to Select & Manage Projects (M)         |   |      | -                                                                                                                       |                      |                     |                      | 8,992 | 0.034**<br>[0.017]   | 0.043***<br>[0.016] |     |    |
| 28 | Prefers Rep. Assembly to Inform Gov't (M)                     |   |      | -                                                                                                                       |                      |                     |                      | 8,993 | -0.004<br>[0.019]    | 0.023<br>[0.018]    |     |    |
| 28 | Suggests Rep. Assembly as Recourse (F)                        |   |      | -                                                                                                                       |                      |                     |                      | 7,586 | -0.006<br>[0.020]    | 0.046**<br>[0.020]  |     |    |
| 28 | Suggests Rep. Assembly as Recourse (M)                        |   |      | -                                                                                                                       |                      |                     |                      | 8,806 | 0.014<br>[0.021]     | 0.051**<br>[0.020]  |     |    |

## IV. Political Attitudes and State-Building

Table A5: Robustness of Political Attitudes and State-Building Indicators to Baseline Controls

| Indicator |                                                              | Baseline Control Variable |      |                                                                                                                               | Results with Baseline Controls |                     |                      |       | Results w/out Controls |                     | Change |     |
|-----------|--------------------------------------------------------------|---------------------------|------|-------------------------------------------------------------------------------------------------------------------------------|--------------------------------|---------------------|----------------------|-------|------------------------|---------------------|--------|-----|
| H#        | Indicator                                                    | Ins.                      | Q#   | Question                                                                                                                      | Endline                        | Midline             | Trend                | Obs.  | Endline                | Midline             | End    | Mid |
| 29        | Prefers Villagers to Participate in Imp. Decisions (F)       | I                         | 1.29 | Do you think a village itself should elect members of the council or village elders? [R]                                      | -0.004<br>[0.019]              |                     |                      | 3,630 | -0.009<br>[0.019]      |                     | 0      |     |
| 29        | Prefers Villagers to Participate in Imp. Decisions (M)       | M                         | 3.28 | Do you think a village itself should elect members of the council or village elders? [R]                                      | -0.006<br>[0.015]              |                     |                      | 4,321 | -0.006<br>[0.015]      |                     | 0      |     |
| 29        | Prefers Election to Select Headman (F)                       | I                         | 1.29 | Do you think a village itself should elect members of the council or village elders? [R]                                      | 0.026<br>[0.020]               | 0.025<br>[0.019]    | 0.037*<br>[0.022]    | 7,017 | 0.029<br>[0.020]       | 0.028<br>[0.018]    | 0      | 0   |
| 29        | Prefers Election to Select Headman (M)                       | M                         | 3.28 | Do you think a village itself should elect members of the council or village elders? [R]                                      | 0.054***<br>[0.016]            | 0.073***<br>[0.016] | -0.061***<br>[0.018] | 8,874 | 0.054***<br>[0.016]    | 0.073***<br>[0.016] | 0      | 0   |
| 29        | Prefers Selection of President by Secret Ballot Election (M) | M                         | 3.28 | Do you think a village itself should elect members of the council or village elders? [R]                                      | -0.006<br>[0.007]              |                     |                      | 4,288 | -0.006<br>[0.007]      |                     | 0      |     |
| 29        | Prefers Selection of Provincial Governor by Election (M)     | M                         | 3.28 | Do you think a village itself should elect members of the council or village elders? [R]                                      | 0.004<br>[0.018]               | 0.006<br>[0.016]    | -0.038*<br>[0.020]   | 8,608 | 0.004<br>[0.018]       | 0.006<br>[0.016]    | 0      | 0   |
| 29        | Believes it Appropriate to Discuss Gov’n Issues (M)          | M                         | 3.28 | Do you think a village itself should elect members of the council or village elders? [R]                                      | 0.007<br>[0.015]               |                     |                      | 4,298 | 0.007<br>[0.015]       |                     | 0      |     |
| 30        | Named At Least One Member of Parliament (F)                  |                           |      | -                                                                                                                             |                                |                     |                      | 8,024 | 0.010<br>[0.016]       | 0.005<br>[0.011]    |        |     |
| 30        | Named At Least One Member of Parliament (F)                  | M                         | 8.04 | What is the name of your area’s representative in the parliament? [S]                                                         | -0.014<br>[0.019]              | 0.001<br>[0.018]    | 0.055**<br>[0.023]   | 8,910 | -0.010<br>[0.019]      | 0.003<br>[0.018]    | 0      | 0   |
| 30        | Voted in 2010 Parliamentary Election (F)                     |                           |      | -                                                                                                                             |                                |                     |                      | 3,783 | 0.060***<br>[0.017]    |                     |        |     |
| 30        | Voted in 2010 Parliamentary Election (M)                     | M                         | 8.10 | Did you vote in the last parliamentary elections? [S]                                                                         | 0.036***<br>[0.010]            |                     |                      | 4,322 | 0.035***<br>[0.010]    |                     | 0      |     |
| 31        | Identifies Predominantly as Afghan (M)                       |                           |      | -                                                                                                                             |                                |                     |                      | 4,342 | 0.007<br>[0.009]       |                     |        |     |
| 31        | Prefers that Gov’t Prosecutes Criminals (Indirect – M)       | M                         | Var. | Aggregate of Perceptions of President, Governor, Uloswol, MPs, Central Gov’t Officials, & NGO workers [R]                     | 0.022<br>[0.022]               | 0.021<br>[0.020]    | 0.049**<br>[0.025]   | 8,930 | 0.022<br>[0.022]       | 0.020<br>[0.020]    | 0      | 0   |
| 31        | Prefers that Gov’t Prosecutes Criminals (Direct – M)         | M                         | Var. | Aggregate of Perceptions of President, Governor, Uloswol, MPs, Central Gov’t Officials, & NGO workers [R]                     | 0.019<br>[0.021]               | -0.001<br>[0.019]   | -0.103***<br>[0.022] | 8,942 | 0.021<br>[0.021]       | 0.000<br>[0.019]    | 0      | 0   |
| 31        | Prefers that Gov’t Set Curriculum (M)                        | M                         | Var. | Aggregate of Perceptions of President, Governor, Uloswol, MPs, Central Gov’t Officials, & NGO workers [R]                     | 0.015<br>[0.018]               |                     |                      | 4,281 | 0.019<br>[0.018]       |                     | 0      |     |
| 31        | Prefers Centralized Government (M)                           | M                         | Var. | Aggregate of Perceptions of President, Governor, Uloswol, MPs, Central Gov’t Officials, & NGO workers [R]                     | 0.000<br>[0.014]               |                     |                      | 4,215 | 0.002<br>[0.014]       |                     | 0      |     |
| 31        | Prefers People to Have ID / Register Life Events (M)         | M                         | Var. | Aggregate of Perceptions of President, Governor, Uloswol, MPs, Central Gov’t Officials, & NGO workers [R]                     | 0.012<br>[0.016]               | -0.007<br>[0.016]   | 0.049***<br>[0.019]  | 8,985 | 0.012<br>[0.016]       | -0.007<br>[0.016]   | 0      | 0   |
| 31        | Prefers that Income Earners Pay Tax to Government (M)        | M                         | 4.15 | Do you think that the people in the village should pay tax to village elders, central government or another organization? [S] | 0.005<br>[0.010]               | 0.014<br>[0.010]    | -0.002<br>[0.013]    | 8,867 | 0.005<br>[0.010]       | 0.014<br>[0.010]    | 0      | 0   |
| 32        | Village Visited by District Government In Past Year (G)      |                           |      | -                                                                                                                             |                                |                     |                      | 884   | 0.054<br>[0.040]       | 0.046<br>[0.038]    |        |     |

|    |                                                             |   |      |                                                                                                                                |                    |                     |                      |       |                    |                     |   |    |
|----|-------------------------------------------------------------|---|------|--------------------------------------------------------------------------------------------------------------------------------|--------------------|---------------------|----------------------|-------|--------------------|---------------------|---|----|
| 32 | Village Visited by Central Gov't Officials in Past Yr. (G)  |   |      | -                                                                                                                              |                    |                     |                      | 884   | 0.024<br>[0.032]   | 0.093***<br>[0.025] |   |    |
| 32 | Village Visited by ANSF in Past Year (G)                    |   |      | -                                                                                                                              |                    |                     |                      | 884   | 0.004<br>[0.038]   | 0.053*<br>[0.031]   |   |    |
| 33 | Perceives that President Acts in Interest of All (M)        | M | 5.10 | In your view, does the (President of Afghanistan) work for the benefit of all the people in the village . . .? [S]             | 0.026*<br>[0.015]  | 0.045***<br>[0.015] | -0.059***<br>[0.018] | 8,655 | 0.026*<br>[0.015]  | 0.045***<br>[0.015] | 0 | 0  |
| 33 | Perceives that Parliament Members Act for All (M)           | M | 5.11 | In your view, does the (Members of Parliament) work for the benefit of all the people in the village . . .? [S]                | 0.019<br>[0.019]   | 0.061***<br>[0.018] | -0.102***<br>[0.023] | 8,605 | 0.019<br>[0.019]   | 0.061***<br>[0.018] | 0 | 0  |
| 33 | Perceives that Central Gov't Officials Act for All (M)      | M | 5.09 | In your view, do (Central Government Authorities) work for the benefit of all the people in the village . . .? [S]             | 0.036*<br>[0.019]  | 0.052***<br>[0.019] | -0.085***<br>[0.021] | 8,268 | 0.036*<br>[0.019]  | 0.052***<br>[0.019] | 0 | 0  |
| 33 | Perceives that Government Judges Act for All (M)            | M | Var. | Aggregate of Perceptions of President, Governor, Uloswol, MPs, Central Gov't Officials, & NGO workers [R]                      | 0.026<br>[0.020]   | 0.056***<br>[0.020] | -0.117***<br>[0.022] | 8,645 | 0.027<br>[0.020]   | 0.057***<br>[0.020] | 0 | 0  |
| 33 | Perceives that Police Act for All (M)                       | M | Var. | Aggregate of Perceptions of President, Governor, Uloswol, MPs, Central Gov't Officials, & NGO workers [R]                      | 0.014<br>[0.020]   | -0.013<br>[0.019]   | 0.522***<br>[0.026]  | 8,836 | 0.013<br>[0.020]   | -0.013<br>[0.019]   | 0 | 0  |
| 33 | Perceives that Army Soldiers Act for All (M)                | M | Var. | Aggregate of Perceptions of President, Governor, Uloswol, MPs, Central Gov't Officials, & NGO workers [R]                      | 0.006<br>[0.011]   |                     |                      | 4,221 | 0.004<br>[0.011]   |                     | 0 |    |
| 33 | Perceives that Living Standards Improved in Past 9 Yrs. (F) | M | Var. | Aggregate of Perceptions of President, Governor, Uloswol, MPs, Central Gov't Officials, & NGO workers [R]                      | 0.022<br>[0.017]   |                     |                      | 3,724 | 0.022<br>[0.016]   |                     | 0 |    |
| 33 | Perceives that Living Standards Improved in Past 9 Yrs. (M) | M | Var. | Aggregate of Perceptions of President, Governor, Uloswol, MPs, Central Gov't Officials, & NGO workers [R]                      | 0.000<br>[0.014]   |                     |                      | 4,312 | 0.000<br>[0.013]   |                     | 0 |    |
| 34 | Perceives that Dist. Governor Acts in Interest of All (M)   | M | 5.07 | In your view, do (District Government Authorities) work for the benefit of all the people in the village . . .? [S]            | 0.025<br>[0.018]   | 0.062***<br>[0.017] | -0.016<br>[0.021]    | 8,499 | 0.024<br>[0.018]   | 0.062***<br>[0.017] | 0 | 0  |
| 34 | Perceives that Prov. Governor Acts in Interest of All (M)   | M | 5.08 | In your view, do (Provincial Government Authorities) work for the benefit of all the people in the village . . .? [S]          | 0.027<br>[0.019]   | 0.059***<br>[0.018] | -0.039*<br>[0.021]   | 8,115 | 0.027<br>[0.019]   | 0.059***<br>[0.018] | 0 | 0  |
| 35 | Perceives that NGO Employees Act in Interest of All (M)     | M | 5.16 | In your view, do (NGO Employees) work for the benefit of all the people in the village . . .? [S]                              | 0.015<br>[0.017]   | 0.046***<br>[0.017] | -0.047**<br>[0.020]  | 8,676 | 0.015<br>[0.017]   | 0.046***<br>[0.017] | 0 | 0  |
| 35 | Perceives that ISAF Soldiers Act in Interest of All (M)     | M | Var. | Aggregate of Perceptions of President, Governor, Uloswol, MPs, Central Gov't Officials, & NGO workers [R]                      | 0.036**<br>[0.015] | 0.035**<br>[0.017]  | -0.092***<br>[0.020] | 7,949 | 0.036**<br>[0.015] | 0.035**<br>[0.017]  | 0 | 0  |
| 35 | Believes that Gov't Will Control District after 2014 (M)    | M | Var. | Aggregate of Perceptions of President, Governor, Uloswol, MPs, Central Gov't Officials, & NGO workers [R]                      | -0.009<br>[0.014]  |                     |                      | 3,858 | -0.008<br>[0.015]  |                     | 0 |    |
| 36 | Village Experienced Attack in Past Year (G)                 | M | 6.31 | Has your household faced one of the following problems and been affected by it in the last 12 months?: War and Insecurity. [R] | -0.011<br>[0.028]  | -0.004<br>[0.021]   | 0.052*<br>[0.027]    | 881   | -0.010<br>[0.027]  | -0.003<br>[0.021]   | 0 | 0  |
| 36 | Village Experienced Attack in Past Year (M)                 | M | 6.31 | Has your household faced one of the following problems and been affected by it in the last 12 months?: War and Insecurity. [R] | -0.011<br>[0.012]  | -0.008<br>[0.010]   | 0.032**<br>[0.013]   | 8,984 | -0.010<br>[0.012]  | -0.008<br>[0.010]   | 0 | 0  |
| 37 | Agricultural Tax Paid to Insurgent Group (M)                | M | 4.09 | To whom did you pay this tax or present? [R]                                                                                   | -0.006<br>[0.005]  |                     |                      | 2,017 | -0.006<br>[0.005]  |                     | 0 |    |
| 38 | Perceives Improvement in Safety of Women (F)                | M | 6.31 | Has your household faced one of the following problems and been affected by it in the last 12 months?: War and Insecurity. [R] | 0.031<br>[0.023]   | 0.046**<br>[0.020]  | 0.018<br>[0.025]     | 7,963 | 0.030<br>[0.023]   | 0.045**<br>[0.020]  | 0 | 0  |
| 38 | Perceives Improvement in Safety of Girls (F)                | M | 6.31 | Has your household faced one of the following problems and been affected by it in the last 12 months?: War and Insecurity. [R] | 0.019<br>[0.025]   | 0.040**<br>[0.020]  | 0.037<br>[0.027]     | 7,301 | 0.017<br>[0.025]   | 0.038*<br>[0.020]   | 0 | +1 |
| 38 | Perceives Improvement in Local Security (M)                 | M | 6.31 | Has your household faced one of the following problems and been affected by it in the last 12 months?: War and Insecurity. [R] | 0.053**<br>[0.026] | 0.046**<br>[0.022]  | -0.087***<br>[0.028] | 8,962 | 0.052**<br>[0.026] | 0.046**<br>[0.022]  | 0 | 0  |
| 38 | Reports Personal Impact of Local Insecurity (M)             | M | 6.31 | Has your household faced one of the following problems and been affected by it in the last 12 months?: War and Insecurity. [S] | 0.005<br>[0.009]   | 0.004<br>[0.008]    | 0.033***<br>[0.011]  | 8,972 | 0.006<br>[0.009]   | 0.005<br>[0.008]    | 0 | 0  |

## V. Social Norms

Table A6: Robustness of Social Norms Indicators to Baseline Controls

| Indicator |                                                          | Baseline Control Variable |      |                                                                                                                                | Results with Baseline Controls |                     |                      |       | Results w/out Controls |                    |     |     |
|-----------|----------------------------------------------------------|---------------------------|------|--------------------------------------------------------------------------------------------------------------------------------|--------------------------------|---------------------|----------------------|-------|------------------------|--------------------|-----|-----|
| H#        | Indicator                                                | Ins.                      | Q#   | Question                                                                                                                       | Endline                        | Midline             | Trend                | Obs.  | Endline                | Midline            | End | Mid |
| 39        | Intra-Village Dispute in Past Year (G)                   | G                         | 6.01 | Did anyone in your village have a legal case last year? [S]                                                                    | -0.056<br>[0.052]              | 0.052<br>[0.046]    | 0.075<br>[0.057]     | 880   | -0.058<br>[0.052]      | 0.049<br>[0.046]   | 0   | 0   |
| 39        | Intra-Village Feud in Past 2 Years (M)                   | G                         | 6.05 | Is there an old vendetta among the tribes in your village? [R]                                                                 | 0.000<br>[0.009]               | 0.015*<br>[0.009]   | 0.009<br>[0.008]     | 8,934 | -0.002<br>[0.009]      | 0.013<br>[0.008]   | 0   | +1! |
| 39        | Dispute With Other Villager in Past Year (M)             | M                         | 5.01 | Did anyone in your village have a legal case last year? [R]                                                                    | -0.011*<br>[0.006]             | -0.006<br>[0.006]   | -0.009<br>[0.007]    | 8,982 | -0.011*<br>[0.006]     | -0.006<br>[0.006]  | 0   | 0   |
| 39        | Proportion of Past Year's Disputes Resolved (G)          | G                         | 6.02 | Has this case been settled? [R]                                                                                                | 0.020<br>[0.048]               | -0.026<br>[0.037]   | 0.002<br>[0.036]     | 216   | -0.064<br>[0.039]      | -0.034<br>[0.048]  | 0   | 0   |
| 40        | Willing to Ask Non-Family Member to Collect Money (F)    | W                         | 4.12 | Would you be willing to ask someone in your village who is not a member of your household to receive money on your behalf? [R] | 0.031<br>[0.026]               | 0.046**<br>[0.023]  | -0.046<br>[0.032]    | 5,446 | 0.013<br>[0.020]       | 0.029<br>[0.019]   | 0   | +2! |
| 40        | Willing to Ask Non-Family Member to Collect Money (M)    | M                         | 5.05 | Would you be willing to ask someone in your village who is not a member of your household to receive money on your behalf? [S] | 0.025**<br>[0.012]             | 0.013<br>[0.013]    | 0.054***<br>[0.016]  | 8,973 | 0.026**<br>[0.012]     | 0.013<br>[0.013]   | 0   | 0   |
| 40        | Non-Family Member Collected Money for Respondent (F)     | W                         | 4.13 | Have you ever done this? [R]                                                                                                   | -0.017<br>[0.029]              | 0.005<br>[0.029]    | 0.006<br>[0.025]     | 3,438 | -0.004<br>[0.013]      | 0.020<br>[0.013]   | 0   | 0   |
| 40        | Non-Family Member Collected Money for Respondent (M)     | M                         | 5.06 | Has something like this ever happened? [S]                                                                                     | 0.011<br>[0.019]               | -0.009<br>[0.017]   | 0.159***<br>[0.021]  | 8,980 | 0.011<br>[0.019]       | -0.009<br>[0.017]  | 0   | 0   |
| 40        | Believes Villagers Are Always Willing to Help Others (M) | M                         | 5.17 | Do people of this village always help other people of the village, help and cooperated with them when necessary? [S]           | -0.008<br>[0.018]              | 0.027<br>[0.018]    | 0.163***<br>[0.022]  | 8,971 | -0.010<br>[0.018]      | 0.025<br>[0.018]   | 0   | 0   |
| 40        | Paid Charity or Paid Agricultural Tax to Needy (M)       | M                         | 6.29 | Expenditure on Charity and relief [S]                                                                                          | 0.017<br>[0.034]               | 0.010<br>[0.016]    | 0.294***<br>[0.032]  | 6,660 | 0.014<br>[0.034]       | 0.008<br>[0.016]   | 0   | 0   |
| 41        | Completed Calculation Correctly (F)                      | W                         | 5.02 | Can you calculate this? [R]                                                                                                    | 0.010<br>[0.012]               | 0.022<br>[0.017]    | -0.358***<br>[0.018] | 7,895 | 0.013<br>[0.012]       | 0.018<br>[0.018]   | 0   | 0   |
| 41        | Completed Calculation Correctly (M)                      | M                         | 8.02 | Now, I want you to calculate this for me. How much is 5 times 6? [S]                                                           | -0.024<br>[0.015]              | 0.025*<br>[0.013]   | -0.415***<br>[0.018] | 8,977 | -0.025<br>[0.016]      | 0.024*<br>[0.013]  | 0   | 0   |
| 41        | Read Basic Sentence (F)                                  | W                         | 5.01 | Can you read this message for me? [R]                                                                                          | -0.001<br>[0.005]              | 0.010**<br>[0.004]  | 0.008*<br>[0.004]    | 7,919 | 0.000<br>[0.005]       | 0.010**<br>[0.004] | 0   | 0   |
| 41        | Read Basic Sentence (M)                                  | M                         | 8.01 | Can you read this message for me? [S]                                                                                          | 0.004<br>[0.013]               | 0.032***<br>[0.012] | 0.005<br>[0.012]     | 8,979 | -0.001<br>[0.013]      | 0.026*<br>[0.014]  | 0   | +2  |
| 42        | Happy or Very Happy (F)                                  | I                         | 3.39 | Please tell us how happy are you with your life? [R]                                                                           | 0.026<br>[0.017]               | 0.015<br>[0.015]    | -0.035*<br>[0.021]   | 7,948 | 0.022<br>[0.017]       | 0.014<br>[0.015]   | 0   | 0   |
| 42        | Happy or Very Happy (M)                                  | M                         | 8.16 | Please tell us how happy are you with your life? [S]                                                                           | 0.012<br>[0.014]               | 0.005<br>[0.013]    | -0.005<br>[0.015]    | 8,944 | 0.010<br>[0.014]       | 0.003<br>[0.012]   | 0   | 0   |
| 42        | Unhappy or Very Unhappy (F)                              | I                         | 3.39 | Please tell us how happy are you with your life? [R]                                                                           | -0.016*<br>[0.009]             | -0.016*<br>[0.008]  | -0.014<br>[0.011]    | 7,948 | -0.016*<br>[0.008]     | -0.017*<br>[0.008] | 0   | 0   |
| 42        | Unhappy or Very Unhappy (M)                              | M                         | 8.16 | Please tell us how happy are you with your life? [S]                                                                           | -0.003<br>[0.010]              | 0.002<br>[0.010]    | -0.002<br>[0.010]    | 8,944 | -0.002<br>[0.010]      | 0.003<br>[0.009]   | 0   | 0   |
| 43        | Appropriate for Women to Vote in National Elections (M)  | M                         | 3.31 | Do you think women should have membership of (the council or village elders)? [R]                                              | 0.029**<br>[0.012]             | 0.004<br>[0.010]    | -0.047***<br>[0.014] | 8,949 | 0.029**<br>[0.012]     | 0.004<br>[0.010]   | 0   | 0   |

|    |                                                           |   |      |                                                                                                                                       |                     |                     |                      |       |                     |                     |     |   |
|----|-----------------------------------------------------------|---|------|---------------------------------------------------------------------------------------------------------------------------------------|---------------------|---------------------|----------------------|-------|---------------------|---------------------|-----|---|
| 43 | Prefers Women Involved in Selection of Prov. Gov. (M)     | M | 3.31 | Do you think women should have membership of (the council or village elders)? <b>[R]</b>                                              | 0.003<br>[0.019]    | 0.009<br>[0.016]    | -0.059***<br>[0.020] | 8,608 | 0.002<br>[0.019]    | 0.008<br>[0.016]    | 0   | 0 |
| 43 | Appropriate for Women to Seek Elected Office (F)          | M | 3.31 | Do you think women should have membership of (the council or village elders)? <b>[R]</b>                                              | 0.010<br>[0.011]    |                     |                      | 3,806 | 0.010<br>[0.012]    |                     | 0   |   |
| 43 | Appropriate for Women to Seek Elected Office (M)          | M | 3.31 | Do you think women should have membership of (the council or village elders)? <b>[R]</b>                                              | 0.033***<br>[0.012] |                     |                      | 4,292 | 0.033***<br>[0.012] |                     | 0   |   |
| 43 | Men Believe It Appropriate for Women to Seek Office (F)   | M | 3.31 | Do you think women should have membership of (the council or village elders)? <b>[R]</b>                                              | 0.015<br>[0.017]    |                     |                      | 3,362 | 0.015<br>[0.017]    |                     | 0   |   |
| 44 | Agrees with Women Working in Government & NGOs (F)        | I | 3.16 | Have you worked for an organization or someone else other than your family member in the last 30 days? <b>[R]</b>                     | 0.028<br>[0.020]    | 0.035**<br>[0.017]  | -0.094***<br>[0.022] | 7,938 | 0.028<br>[0.020]    | 0.033**<br>[0.016]  | 0   | 0 |
| 44 | Agrees with Women Working in Government & NGOs (M)        | I | 3.16 | Have you worked for an organization or someone else other than your family member in the last 30 days? <b>[R]</b>                     | 0.027<br>[0.016]    | 0.012<br>[0.014]    | -0.139***<br>[0.016] | 8,876 | 0.030*<br>[0.016]   | 0.015<br>[0.014]    | -1! | 0 |
| 44 | Men Agree with Women Working in Gov't & NGOs (F)          | I | 3.16 | Have you worked for an organization or someone else other than your family member in the last 30 days? <b>[R]</b>                     | 0.027*<br>[0.016]   |                     |                      | 3,402 | 0.018<br>[0.016]    |                     | +1! |   |
| 44 | Willing to Allow Fem. Relative to See Male Doctor (M)     | W | 2.18 | If your daughter gets ill, and there is no female nurse or doctor to cure her do you take your daughter to a male doctor? <b>[S]</b>  | 0.011<br>[0.010]    | -0.004<br>[0.012]   | 0.037***<br>[0.013]  | 7,381 | 0.008<br>[0.010]    | -0.002<br>[0.010]   | 0   | 0 |
| 44 | Willing to Be Seen by Male Doctor (F)                     | M | 2.19 | When a woman in your village becomes ill, is there a health worker available . . . to treat the patient . . . ? <b>[R]</b>            | -0.007<br>[0.010]   | 0.002<br>[0.011]    | 0.011<br>[0.012]     | 8,025 | -0.007<br>[0.010]   | 0.001<br>[0.011]    | 0   | 0 |
| 45 | Girl Aspires to Work in Professional Occupation (F)       | M | 8.08 | Are girls in your village allowed to go to school? <b>[R]</b>                                                                         | 0.030<br>[0.019]    |                     |                      | 1,241 | 0.029<br>[0.019]    |                     | 0   |   |
| 45 | Girl Prefers to Be Educated Up to University (F)          | M | 8.08 | Are girls in your village allowed to go to school? <b>[R]</b>                                                                         | 0.004<br>[0.016]    |                     |                      | 1,229 | 0.005<br>[0.016]    |                     | 0   |   |
| 45 | Girl Wants to Live in City (F)                            | M | 8.08 | Are girls in your village allowed to go to school? <b>[R]</b>                                                                         | 0.007<br>[0.028]    |                     |                      | 1,262 | 0.004<br>[0.028]    |                     | 0   |   |
| 45 | Girls Should be Educated to Same Level as Boys (M)        | M | 8.08 | Are girls in your village allowed to go to school? <b>[R]</b>                                                                         | 0.022<br>[0.015]    |                     |                      | 4,307 | 0.022<br>[0.015]    |                     | 0   |   |
| 45 | Believes Girls Should be Educated Up to University (F)    | W | 2.08 | We want to ask this question separately from every one of you; do you think that girls should be allowed to go to schools? <b>[R]</b> | -0.001<br>[0.010]   |                     |                      | 3,566 | -0.001<br>[0.009]   |                     | 0   |   |
| 45 | Men Believe Girls Should be Educated Up to University (F) | M | 8.08 | Are girls in your village allowed to go to school? <b>[R]</b>                                                                         | 0.003<br>[0.008]    |                     |                      | 3,599 | 0.004<br>[0.008]    |                     | 0   |   |
| 45 | Prefers Equal Number of Male and Female Births (F)        | M | 8.08 | Are girls in your village allowed to go to school? <b>[R]</b>                                                                         | -0.005<br>[0.023]   | 0.023<br>[0.024]    | -0.039<br>[0.029]    | 2,958 | -0.003<br>[0.023]   | 0.025<br>[0.024]    | 0   | 0 |
| 46 | Prefers Women To Be Involved In Selecting Headman (F)     | I | 1.32 | Do you think women should have membership of the council or village elders too? <b>[R]</b>                                            | 0.029<br>[0.021]    | 0.021<br>[0.021]    | 0.044*<br>[0.027]    | 7,017 | 0.040*<br>[0.021]   | 0.027<br>[0.021]    | -1! | 0 |
| 46 | Prefers Women To Be Involved In Selecting Headman (M)     | M | 3.31 | Do you think women should have membership of (the council or village elders)? <b>[S]</b>                                              | 0.051***<br>[0.017] | 0.063***<br>[0.018] | -0.043**<br>[0.019]  | 8,874 | 0.053***<br>[0.017] | 0.066***<br>[0.018] | 0   | 0 |
| 46 | Prefers Women to Be Members of Village Council (F)        | I | 1.32 | Do you think women should have membership of the council or village elders too? <b>[R]</b>                                            | 0.008<br>[0.019]    | 0.012<br>[0.021]    | -0.122***<br>[0.025] | 7,340 | 0.009<br>[0.019]    | 0.012<br>[0.020]    | 0   | 0 |
| 46 | Prefers Women to Be Members of Village Council (M)        | M | 3.31 | Do you think women should have membership of (the council or village elders)? <b>[R]</b>                                              | 0.030**<br>[0.014]  | -0.015<br>[0.014]   | -0.025<br>[0.019]    | 8,859 | 0.030**<br>[0.014]  | -0.015<br>[0.014]   | 0   | 0 |
| 46 | Men Prefer Women to Be Members of Council (F)             | I | 1.32 | Do you think women should have membership of the council or village elders too? <b>[R]</b>                                            | 0.005<br>[0.012]    |                     |                      | 3,240 | 0.008<br>[0.012]    |                     | 0   |   |
| 46 | Prefers Women to Participate in Dispute Resolution (M)    | M | 3.31 | Do you think women should have membership of (the council or village elders)? <b>[R]</b>                                              | 0.023<br>[0.016]    |                     |                      | 4,286 | 0.024<br>[0.016]    |                     | 0   |   |

|    |                                                         |   |      |                                                                                                            |                     |                     |                      |       |                      |                     |     |     |
|----|---------------------------------------------------------|---|------|------------------------------------------------------------------------------------------------------------|---------------------|---------------------|----------------------|-------|----------------------|---------------------|-----|-----|
| 47 | Woman in Village Well-Respected by All (F)              | I | 3.15 | Are the views of the women who are heads of families considered in settling a legal case? <b>[R]</b>       | 0.018<br>[0.022]    | 0.077***<br>[0.018] | 0.177***<br>[0.024]  | 7,803 | 0.016<br>[0.021]     | 0.075***<br>[0.018] | 0   | 0   |
| 47 | Woman in Village Well-Respected by All (M)              | G | 4.16 | Are women members of this (council or village elders) or they have a separate council? <b>[R]</b>          | 0.033<br>[0.025]    | 0.098***<br>[0.022] | 0.297***<br>[0.031]  | 8,773 | 0.039<br>[0.024]     | 0.094***<br>[0.021] | 0   | 0   |
| 47 | Women Involved in Resolution of Most Recent Dispute (F) | I | 3.15 | Are the views of the women who are heads of families considered in settling a legal case? <b>[R]</b>       | 0.006<br>[0.005]    |                     |                      | 3,589 | 0.009<br>[0.006]     |                     | 0   |     |
| 47 | Women Involved in Resolution of Most Recent Dispute (M) | G | 4.16 | Are women members of this (council or village elders) or they have a separate council? <b>[R]</b>          | 0.020***<br>[0.006] |                     |                      | 4,209 | 0.020***<br>[0.006]  |                     | 0   |     |
| 47 | Women Participate in Dispute Resolution (F)             | I | 3.15 | Are the views of the women who are heads of families considered in settling a legal case? <b>[S]</b>       | 0.011*<br>[0.006]   |                     |                      | 3,272 | 0.012**<br>[0.006]   |                     | -1  |     |
| 47 | Women Participate in Dispute Resolution (M)             | G | 4.16 | Are women members of this (council or village elders) or they have a separate council? <b>[R]</b>          | 0.028**<br>[0.013]  |                     |                      | 4,041 | 0.028**<br>[0.013]   |                     | 0   |     |
| 47 | Women's Views Considered in Allocating Food Aid (F)     | I | 3.15 | Are the views of the women who are heads of families considered in settling a legal case? <b>[R]</b>       | 0.033***<br>[0.010] |                     |                      | 3,363 | 0.035***<br>[0.010]  |                     | 0   |     |
| 47 | Women's Views Considered in Allocating Food Aid (M)     | G | 4.16 | Are women members of this (council or village elders) or they have a separate council? <b>[R]</b>          | 0.037**<br>[0.016]  |                     |                      | 4,002 | 0.039**<br>[0.015]   |                     | 0   |     |
| 48 | Socializes With Other Women in the Village (F)          | W | 4.10 | Do the women in the village socialize with the women who are not their relatives? <b>[R]</b>               | 0.015<br>[0.019]    | 0.025<br>[0.016]    | 0.051**<br>[0.021]   | 6,738 | 0.004<br>[0.016]     | 0.012<br>[0.014]    | 0   | 0   |
| 48 | Knows At Least One Household in Other Village (F)       | W | 4.10 | Do the women in the village socialize with the women who are not their relatives? <b>[R]</b>               | 0.001<br>[0.005]    |                     |                      | 2,387 | 0.002<br>[0.005]     |                     | 0   |     |
| 48 | Discussed Marriage, Birth or Family Issues (F)          | W | 4.10 | Do the women in the village socialize with the women who are not their relatives? <b>[R]</b>               | 0.002<br>[0.016]    |                     |                      | 3,222 | -0.012<br>[0.014]    |                     | 0   |     |
| 48 | Discussed Disputes or Local Governance Issues (F)       | W | 4.10 | Do the women in the village socialize with the women who are not their relatives? <b>[R]</b>               | -0.020<br>[0.012]   |                     |                      | 3,222 | -0.030***<br>[0.011] |                     | -3! |     |
| 49 | Trips Outside Compound in Past 30 Days (F)              | I | 3.23 | How many times did you come out of the house in the last 30 days? <b>[S]</b>                               | -0.052<br>[0.072]   | 0.018<br>[0.071]    | -0.648***<br>[0.092] | 7,712 | -0.043<br>[0.072]    | 0.029<br>[0.068]    | 0   | 0   |
| 49 | Leaves Compound Alone (F)                               | I | 3.25 | Do you always have a company when you leave the house? <b>[S]</b>                                          | -0.008<br>[0.021]   | 0.029<br>[0.019]    | -0.193***<br>[0.025] | 7,944 | -0.014<br>[0.021]    | 0.027<br>[0.019]    | 0   | 0   |
| 49 | Never or Only Sometimes Wears Chadori (F)               | I | 3.26 | Do you wear a chadori ( <i>burqa</i> ) when you go out of the house? When do you wear chadori? <b>[S]</b>  | -0.010<br>[0.019]   | 0.012<br>[0.022]    | -0.105***<br>[0.024] | 7,959 | -0.011<br>[0.018]    | 0.011<br>[0.021]    | 0   | 0   |
| 49 | Visited Nearest Village in Past Year (F)                | I | 3.23 | How many times did you come out of the house in the last 30 days? <b>[R]</b>                               | 0.054***<br>[0.021] | 0.031<br>[0.020]    | 0.055**<br>[0.021]   | 7,743 | 0.054***<br>[0.020]  | 0.038*<br>[0.020]   | 0   | -1! |
| 49 | Visited District Center in Past Month (F)               | I | 3.23 | How many times did you come out of the house in the last 30 days? <b>[R]</b>                               | 0.035*<br>[0.019]   | 0.024<br>[0.020]    | 0.033<br>[0.020]     | 7,734 | 0.039**<br>[0.019]   | 0.030<br>[0.020]    | -1  | 0   |
| 49 | Held Meeting with Women from Other Villages (W)         |   |      | -                                                                                                          |                     |                     |                      | 798   | 0.017<br>[0.027]     | 0.073***<br>[0.022] |     |     |
| 49 | Village Women Held Meeting with District Government (W) |   |      | -                                                                                                          |                     |                     |                      | 797   | 0.012<br>[0.020]     | 0.041**<br>[0.017]  |     |     |
| 50 | Generated Income for Household in Past Year (F)         | W | 4.05 | Do you do any work to generate money to be used by your family and other people in the village? <b>[S]</b> | 0.010<br>[0.027]    | 0.048*<br>[0.025]   | 0.041<br>[0.031]     | 6,723 | 0.018<br>[0.024]     | 0.051**<br>[0.023]  | 0   | -1  |
| 50 | Exerts Control over Income Earned (F)                   | I | Var. | Exerts Control over Income Earned <b>[S]</b>                                                               | -0.006<br>[0.028]   | -0.019<br>[0.034]   | -0.020<br>[0.037]    | 2,467 | -0.013<br>[0.024]    | -0.016<br>[0.025]   | 0   | 0   |
| 50 | Owns At Least One Type of Asset (F)                     | I | Var. | Owns At Least One Type of Asset <b>[S]</b>                                                                 | -0.003<br>[0.021]   | 0.014<br>[0.021]    | 0.109***<br>[0.026]  | 7,969 | -0.005<br>[0.021]    | 0.013<br>[0.021]    | 0   | 0   |

|    |                                                        |   |      |                                                                                                                      |                   |                   |                      |       |                    |                   |    |   |
|----|--------------------------------------------------------|---|------|----------------------------------------------------------------------------------------------------------------------|-------------------|-------------------|----------------------|-------|--------------------|-------------------|----|---|
| 50 | Exerts Control Over Decisions Pertaining to Assets (F) | I | Var. | Exerts Full or Partial Control Over Decisions Pertaining to the Sale or Use of Income Generated by Assets <b>[S]</b> | 0.047<br>[0.030]  | -0.004<br>[0.026] | -0.138***<br>[0.038] | 3,710 | 0.044<br>[0.027]   | -0.006<br>[0.024] | 0  | 0 |
| 50 | Women Consulted on Decisions on Children (F)           | I | Var. | Women Are Consulted or Responsible for Children's Marriage and Education and Procreation <b>[S]</b>                  | -0.030<br>[0.020] | -0.010<br>[0.018] | -0.058**<br>[0.025]  | 7,363 | -0.034*<br>[0.020] | -0.017<br>[0.018] | -1 | 0 |
| 50 | Women Consulted on Decisions on Purchases (F)          | I | CV   | Women Are Consulted or Responsible for Decisions on Purchases of Food, Clothes, and Medicine <b>[S]</b>              | -0.003<br>[0.020] | -0.023<br>[0.019] | -0.049**<br>[0.022]  | 7,968 | -0.003<br>[0.019]  | -0.023<br>[0.018] | 0  | 0 |

# Appendix III – Test of Robustness of Family, Group & Hypotheses Results to Inclusion of Baseline Data<sup>213</sup>

## I. Hypotheses Results

Table A7: Robustness of Hypotheses to Baseline Controls

| H#                                             | Hypothesis                                                                     | Endline  |          |             |          | Midline  |          |             |          | Change |     |
|------------------------------------------------|--------------------------------------------------------------------------------|----------|----------|-------------|----------|----------|----------|-------------|----------|--------|-----|
|                                                |                                                                                | Controls |          | No Controls |          | Controls |          | No Controls |          | End    | Mid |
|                                                |                                                                                | Coeff.   | p-Values | Coeff.      | p-Values | Coeff.   | p-Values | Coeff.      | p-Values |        |     |
| Access to Utilities, Services & Infrastructure |                                                                                |          |          |             |          |          |          |             |          |        |     |
| 1                                              | Access to Drinking Water                                                       | 0.064    | 0.027    | 0.064       | 0.028    | 0.059    | 0.025    | 0.060       | 0.023    | 0      | 0   |
| 2                                              | Access to Electricity                                                          | 0.098    | 0.059    | 0.099       | 0.052    | 0.052    | 0.282    | 0.051       | 0.314    | 0      | 0   |
| 3                                              | Counseling Services for Women                                                  | -        | -        | 0.099       | 0.052    | -        | -        | 0.207       | 0.000    |        |     |
| 4                                              | Access to Education                                                            | 0.053    | 0.051    | 0.058       | 0.035    | -        | -        | -           | -        | -1     |     |
| 5                                              | Health Services & Outcomes                                                     | 0.041    | 0.007    | 0.040       | 0.013    | 0.007    | 0.686    | 0.009       | 0.597    | +1     | 0   |
| 6                                              | Access to Irrigation                                                           | 0.015    | 0.710    | 0.015       | 0.696    | -        | -        | -           | -        | -      | -   |
| 7                                              | Accessibility & Mobility                                                       | -0.009   | 0.824    | -0.002      | 0.954    | 0.030    | 0.315    | 0.027       | 0.384    | 0      | 0   |
| 8                                              | Project Preferences of Male Villagers                                          | -        | -        | -           | -        | -        | -        | -           | -        |        |     |
| Economic Activity                              |                                                                                |          |          |             |          |          |          |             |          |        |     |
| 9                                              | Perceptions of Local Economy                                                   | 0.080    | 0.001    | 0.080       | 0.001    | 0.117    | 0.000    | 0.118       | 0.000    | 0      | 0   |
| 10                                             | Security of Household Income                                                   | 0.022    | 0.368    | 0.023       | 0.355    | 0.049    | 0.062    | 0.049       | 0.059    | 0      | 0   |
| 11                                             | Household Consumption Expenditure                                              | -0.008   | 0.786    | -0.008      | 0.781    | 0.007    | 0.786    | 0.007       | 0.796    | 0      | 0   |
| 12                                             | Household Assets                                                               | 0.014    | 0.589    | 0.020       | 0.428    | 0.011    | 0.630    | 0.013       | 0.553    | 0      | 0   |
| 13                                             | Borrowing for Food & Medical Needs                                             | 0.056    | 0.168    | 0.056       | 0.168    | 0.009    | 0.724    | 0.009       | 0.721    | 0      | 0   |
| 14                                             | Food Security                                                                  | -0.004   | 0.831    | -0.004      | 0.831    | 0.015    | 0.283    | 0.016       | 0.282    | 0      | 0   |
| 15                                             | Agricultural Productivity & Access to Markets                                  | 0.411    | 0.163    | 0.411       | 0.163    | 0.033    | 0.772    | 0.034       | 0.773    | 0      | 0   |
| 16                                             | Non-Agricultural Productivity & Access to Markets                              | -0.009   | 0.801    | -0.007      | 0.843    | 0.018    | 0.356    | 0.018       | 0.358    | 0      | 0   |
| 17                                             | Net Migration of Households                                                    | 0.151    | 0.137    | 0.154       | 0.044    | 0.174    | 0.060    | 0.180       | 0.010    | -2!    | -2  |
| 18                                             | Net Migration of Household Members                                             | -        | -        | -0.032      | 0.15     | -        | -        | -           | -        |        |     |
| Local Governance                               |                                                                                |          |          |             |          |          |          |             |          |        |     |
| 19                                             | Continuity of Local Leadership                                                 | 0.009    | 0.769    | 0.009       | 0.769    | 0.001    | 0.977    | 0.001       | 0.977    | 0      | 0   |
| 20                                             | Affiliation of Local Leadership with Representative Assemblies                 | 0.041    | 0.214    | 0.043       | 0.193    | 0.169    | 0.000    | 0.172       | 0.000    | 0      | 0   |
| 21                                             | Female Representation in Local Assemblies                                      | -        | -        | 0.697       | 0.000    | -        | -        | 1.013       | 0.000    |        |     |
| 22                                             | Provision of Local Governance Services                                         | 0.011    | 0.557    | 0.009       | 0.636    | 0.030    | 0.053    | 0.030       | 0.054    | 0      | 0   |
| 23                                             | Activity of Village Leaders & Institutions                                     | 0.066    | 0.015    | 0.067       | 0.013    | 0.110    | 0.000    | 0.112       | 0.000    | 0      | 0   |
| 24                                             | Role of Representative Assemblies in Provision of Local Governance Services    | 0.016    | 0.518    | 0.022       | 0.376    | 0.062    | 0.002    | 0.061       | 0.002    | 0      | 0   |
| 25                                             | Participation in Local Governance                                              | 0.090    | 0.000    | 0.082       | 0.001    | 0.089    | 0.000    | 0.096       | 0.000    | 0      | 0   |
| 26                                             | Perceptions of Quality of Local Governance                                     | -0.072   | 0.002    | -0.073      | 0.002    | 0.009    | 0.567    | 0.012       | 0.430    | 0      | 0   |
| 27                                             | Informal Taxation by Village Leaders                                           | -0.029   | 0.391    | -0.029      | 0.377    | -        | -        | -           | -        | 0      |     |
| 28                                             | Preferences for Representative Assemblies to Provide Local Governance Services | 0.031    | 0.149    | 0.031       | 0.149    | 0.045    | 0.029    | 0.045       | 0.029    | 0      | 0   |

<sup>213</sup> Shaded rows indicate substantive changes in coefficients, with red denoting a drop in significance level, orange denoting a loss of significance, grey denoting a rise in significance level, and blue denoting a gain of significance. Deeper tones represent changes of greater magnitude.

| Political Attitudes & State-Building |                                                              |        |       |        |       |        |       |        |       |     |    |
|--------------------------------------|--------------------------------------------------------------|--------|-------|--------|-------|--------|-------|--------|-------|-----|----|
| 29                                   | Acceptance of Democratic Norms of Governance                 | 0.022  | 0.071 | 0.022  | 0.076 | 0.033  | 0.001 | 0.033  | 0.001 | 0   | 0  |
| 30                                   | Participation in National Elections and Political Knowledge  | 0.053  | 0.014 | 0.054  | 0.014 | 0.003  | 0.810 | 0.004  | 0.801 | 0   | 0  |
| 31                                   | Acceptance of Central Government Authority                   | 0.028  | 0.098 | 0.028  | 0.093 | 0.009  | 0.464 | 0.009  | 0.454 | 0   | 0  |
| 32                                   | Linkages between Villages and Government                     | 0.071  | 0.245 | 0.071  | 0.245 | 0.201  | 0.000 | 0.201  | 0.000 | 0   | 0  |
| 33                                   | Perceptions of Central Government                            | 0.036  | 0.079 | 0.036  | 0.080 | 0.051  | 0.000 | 0.051  | 0.000 | 0   | 0  |
| 34                                   | Perceptions of Sub-National Government                       | 0.050  | 0.146 | 0.050  | 0.147 | 0.119  | 0.000 | 0.120  | 0.000 | 0   | 0  |
| 35                                   | Perceptions of Government-Allied Actors                      | 0.034  | 0.101 | 0.034  | 0.102 | 0.058  | 0.005 | 0.058  | 0.005 | 0   | 0  |
| 36                                   | Violent Incidents                                            | 0.043  | 0.489 | 0.042  | 0.495 | 0.024  | 0.659 | 0.023  | 0.665 | 0   | 0  |
| 37                                   | Informal Taxation by Insurgent Groups                        | -0.033 | 0.230 | -0.033 | 0.230 | -      | -     | -      | -     | 0   |    |
| 38                                   | Perceptions of Local Security                                | 0.045  | 0.164 | 0.045  | 0.168 | 0.061  | 0.029 | 0.061  | 0.030 | 0   | 0  |
| Social Norms                         |                                                              |        |       |        |       |        |       |        |       |     |    |
| 39                                   | Intra-Village Disputes & Resolution Rates                    | 0.028  | 0.476 | -0.009 | 0.800 | -0.083 | 0.032 | -0.060 | 0.096 | 0   | +1 |
| 40                                   | Interpersonal Trust                                          | 0.021  | 0.318 | 0.018  | 0.363 | 0.035  | 0.051 | 0.032  | 0.044 | 0   | -1 |
| 41                                   | Literacy and Computational Ability                           | -0.001 | 0.950 | -0.001 | 0.966 | 0.059  | 0.002 | 0.057  | 0.003 | 0   | 0  |
| 42                                   | Happiness                                                    | 0.037  | 0.088 | 0.035  | 0.113 | 0.022  | 0.291 | 0.022  | 0.284 | +1! | 0  |
| 43                                   | Acceptance of Female Political Participation                 | 0.046  | 0.005 | 0.046  | 0.005 | 0.006  | 0.529 | 0.006  | 0.535 | 0   | 0  |
| 44                                   | Acceptance of Female Economic & Social Participation         | 0.034  | 0.049 | 0.031  | 0.075 | 0.017  | 0.241 | 0.019  | 0.183 | +1  | 0  |
| 45                                   | Cultural Constraints to Education of Girls                   | 0.017  | 0.232 | 0.017  | 0.220 | 0.006  | 0.281 | 0.007  | 0.273 | 0   | 0  |
| 46                                   | Acceptance of Female Participation in Local Governance       | 0.057  | 0.001 | 0.059  | 0.001 | 0.028  | 0.029 | 0.029  | 0.026 | 0   | 0  |
| 47                                   | Women’s Involvement in Local Governance                      | 0.076  | 0.000 | 0.079  | 0.000 | 0.042  | 0.000 | 0.041  | 0.000 | 0   | 0  |
| 48                                   | Social Activity among Women                                  | -0.017 | 0.327 | -0.017 | 0.303 | 0.010  | 0.253 | 0.006  | 0.417 | 0   | 0  |
| 49                                   | Women’s Mobility                                             | 0.040  | 0.178 | 0.039  | 0.185 | 0.117  | 0.000 | 0.120  | 0.000 | 0   | 0  |
| 50                                   | Women’s Participation in Economic Activity & Decision-Making | 0.005  | 0.806 | 0.003  | 0.905 | -0.002 | 0.944 | 0.001  | 0.967 | 0   | 0  |

## II. Family & Group Results

Table A8: Robustness of Family and Group Results to Baseline Controls

| Family                                         | Endline  |        |             |        | Midline  |        |             |        | Change |     | Group                     | Endline  |        |             |        | Midline  |        |             |        | Change |     |
|------------------------------------------------|----------|--------|-------------|--------|----------|--------|-------------|--------|--------|-----|---------------------------|----------|--------|-------------|--------|----------|--------|-------------|--------|--------|-----|
|                                                | Controls |        | No Controls |        | Controls |        | No Controls |        |        |     |                           | Controls |        | No Controls |        | Controls |        | No Controls |        |        |     |
|                                                | Coeff.   | p-val. | Coeff.      | p-val. | Coeff.   | p-val. | Coeff.      | p-val. | End    | Mid |                           | Coeff.   | p-val. | Coeff.      | p-val. | Coeff.   | p-val. | Coeff.      | p-val. | End    | Mid |
| Access to Utilities, Services & Infrastructure | 0.045    | 0.001  | 0.046       | 0.001  | 0.03     | 0.004  | 0.030       | 0.003  | 0      | 0   | Utilities                 | 0.070    | 0.006  | 0.071       | 0.006  | 0.058    | 0.019  | 0.058       | 0.018  | 0      | 0   |
|                                                |          |        |             |        |          |        |             |        |        |     | Services                  | 0.055    | 0.000  | 0.055       | 0.000  | 0.021    | 0.088  | 0.022       | 0.065  | 0      | 0   |
|                                                |          |        |             |        |          |        |             |        |        |     | Infrastructure            | 0.002    | 0.957  | 0.005       | 0.872  | 0.026    | 0.158  | 0.023       | 0.209  | 0      | 0   |
|                                                |          |        |             |        |          |        |             |        |        |     | Project Pref.             | -        | -      | -           | -      | -        | -      | -           | -      |        |     |
| Economic Activity                              | 0.086    | 0.066  | 0.086       | 0.063  | 0.042    | 0.036  | 0.043       | 0.034  | 0      | 0   | Perceptions               | 0.080    | 0.001  | 0.080       | 0.001  | 0.117    | 0.000  | 0.118       | 0.000  | 0      | 0   |
|                                                |          |        |             |        |          |        |             |        |        |     | Stocks & Flows            | 0.015    | 0.234  | 0.016       | 0.204  | 0.021    | 0.055  | 0.021       | 0.048  | 0      | -1  |
|                                                |          |        |             |        |          |        |             |        |        |     | Production & Marketing    | 0.201    | 0.176  | 0.202       | 0.174  | 0.026    | 0.668  | 0.026       | 0.669  | 0      | 0   |
|                                                |          |        |             |        |          |        |             |        |        |     | Migration                 | 0.059    | 0.242  | 0.061       | 0.116  | 0.087    | 0.058  | 0.090       | 0.009  | 0      | -2  |
| Local Gov'n                                    | 0.024    | 0.015  | 0.024       | 0.014  | 0.074    | 0.000  | 0.075       | 0.000  | 0      | 0   | Structure                 | 0.134    | 0.000  | 0.135       | 0.000  | 0.226    | 0.000  | 0.226       | 0.000  | 0      | 0   |
|                                                |          |        |             |        |          |        |             |        |        |     | Function                  | 0.036    | 0.018  | 0.038       | 0.014  | 0.074    | 0.000  | 0.074       | 0.000  | 0      | 0   |
|                                                |          |        |             |        |          |        |             |        |        |     | Quality & Participation   | -0.020   | 0.284  | -0.016      | 0.245  | 0.030    | 0.007  | 0.033       | 0.004  | 0      | 0   |
| Political Attitudes & State-Building           | 0.038    | 0.001  | 0.038       | 0.001  | 0.049    | 0.000  | 0.049       | 0.000  | 0      | 0   | Democratic Values         | 0.034    | 0.003  | 0.033       | 0.004  | 0.022    | 0.005  | 0.023       | 0.004  | 0      | 0   |
|                                                |          |        |             |        |          |        |             |        |        |     | State Legitimacy          | 0.04     | 0.051  | 0.041       | 0.050  | 0.066    | 0.000  | 0.066       | 0.000  | -1     | 0   |
|                                                |          |        |             |        |          |        |             |        |        |     | Perceptions of Government | 0.038    | 0.050  | 0.038       | 0.051  | 0.063    | 0.000  | 0.063       | 0.000  | +1     | 0   |
|                                                |          |        |             |        |          |        |             |        |        |     | Conflict                  | 0.043    | 0.122  | 0.042       | 0.126  | 0.042    | 0.088  | 0.041       | 0.091  | 0      | 0   |
| Social Norms                                   | 0.032    | 0.000  | 0.029       | 0.000  | 0.026    | 0.000  | 0.027       | 0.000  | 0      | 0   | Social Cohesion           | 0.024    | 0.248  | 0.007       | 0.695  | -0.010   | 0.513  | -0.005      | 0.778  | 0      | 0   |
|                                                |          |        |             |        |          |        |             |        |        |     | Basic Skills              | -0.001   | 0.950  | -0.001      | 0.966  | 0.059    | 0.002  | 0.057       | 0.003  | 0      | 0   |
|                                                |          |        |             |        |          |        |             |        |        |     | Happiness                 | 0.037    | 0.088  | 0.035       | 0.113  | 0.022    | 0.291  | 0.022       | 0.284  | +1!    | 0   |
|                                                |          |        |             |        |          |        |             |        |        |     | Gender Attitudes          | 0.037    | 0.000  | 0.037       | 0.000  | 0.015    | 0.015  | 0.016       | 0.010  | 0      | -1  |
|                                                |          |        |             |        |          |        |             |        |        |     | Gender Outcomes           | 0.034    | 0.011  | 0.034       | 0.012  | 0.046    | 0.000  | 0.046       | 0.000  | 0      | 0   |

## Appendix IV – Test of Robustness of Indicator Results to Interaction of Matched Pair Fixed Effects and Period Dummies

As described in Section VIII.vi of Part II, the robustness of results to assumptions regarding the functional form is tested by permitting the interaction of matched pair fixed effects with time period dummies. The results of these tests are reported in the following sections: I reports results for indicators pertaining to Access to Utilities, Services, and Infrastructure; II for Economic Welfare; III for Local Governance; IV for Political Attitudes and State-Building; and V for Social Norms.

The tables in which the results are presented list the corresponding hypothesis number and description for the midline or endline indicator; the instrument;<sup>214</sup> the coefficients and standard errors for the endline and midline estimates with and without the interaction of matched-pair fixed effects and period dummies. The final two columns indicate whether or not the significant of the endline or midline coefficients is affected by the change in functional form: “0” denotes no change; “+1” denotes a gain of one level of significance (e.g., from 5 percent to 1 percent); “+2” denotes a gain of two levels; and “+3” denotes a gain of three levels; with negative values indicating a loss of the corresponding level; and “!” indicating either a loss or gain of statistical significance.<sup>215</sup>

### I. Access to Utilities, Services, and Infrastructure

Table A9: Robustness of Access to Utilities, Services, and Infrastructure Indicators to Interaction of Matched-Pair Fixed Effects and Period Dummies

| Midline / Endline Indicator |                                                          | Interaction         |                      | No Interaction      |                      | Change |     |
|-----------------------------|----------------------------------------------------------|---------------------|----------------------|---------------------|----------------------|--------|-----|
| H#                          | Description                                              | Endline             | Midline              | Endline             | Midline              | End    | Mid |
| 1                           | Primary Source of Drinking Water is Protected Source (F) | 0.061***<br>[0.022] | 0.051**<br>[0.021]   | 0.050**<br>[0.023]  | 0.049**<br>[0.022]   | +1     | 0   |
| 1                           | Hours Spent Collecting Water in Past Week (F)            | -0.051**<br>[0.023] | 0.061<br>[0.042]     | -0.053*<br>[0.030]  | 0.053<br>[0.046]     | +1     | 0   |
| 1                           | Seasons in Past Year Water Was of Poor Quality (F)       | -0.066<br>[0.055]   | -0.153***<br>[0.049] | -0.054<br>[0.062]   | -0.151***<br>[0.055] | 0      | 0   |
| 1                           | Seasons in Past Year Water Was Not Available (F)         | -0.058**<br>[0.029] | -0.064***<br>[0.022] | -0.048<br>[0.035]   | -0.058**<br>[0.027]  | +2!    | +1  |
| 2                           | Hours of Electricity in Past Month (M)                   | 0.227**<br>[0.108]  | 0.140<br>[0.113]     | 0.261**<br>[0.130]  | 0.131<br>[0.126]     | 0      | 0   |
| 3                           | Women Can Avail Counseling Services in Village (F)       | 0.060***<br>[0.014] | 0.075***<br>[0.010]  | 0.059***<br>[0.017] | 0.067***<br>[0.014]  | 0      | 0   |
| 4                           | Days School-Age Girl Attended School Last Week (F)       | 0.282**<br>[0.128]  |                      | 0.283**<br>[0.128]  |                      | 0      |     |
| 4                           | Days School-Age Boy Attended School Last Week (F)        | -0.047<br>[0.103]   |                      | -0.047<br>[0.103]   |                      | 0      |     |
| 4                           | Girl Completed Basic Calculation Correctly (F)           | 0.037*<br>[0.021]   |                      | 0.037*<br>[0.021]   |                      | 0      |     |
| 5                           | Child Suffered Diarrhea in Past 2 Weeks (F)              | -0.002<br>[0.012]   |                      | -0.002<br>[0.012]   |                      | 0      |     |
| 5                           | Child Visited Doctor in Past Year (F)                    | 0.064***<br>[0.015] |                      | 0.064***<br>[0.015] |                      | 0      |     |
| 5                           | Most Recent Born Was Alive after 12 Months (F)           | -0.010<br>[0.008]   | -0.003<br>[0.005]    | -0.005<br>[0.008]   | 0.001<br>[0.007]     | 0      | 0   |
| 5                           | Episodes of Prenatal Care in Most Recent Pregnancy (F)   | 0.080***<br>[0.030] | -0.004<br>[0.029]    | 0.065**<br>[0.031]  | 0.000<br>[0.032]     | +1     | 0   |
| 5                           | Most Recent Birth Attended by Medical Professional (F)   | 0.021<br>[0.014]    | -0.033**<br>[0.016]  | 0.014<br>[0.015]    | -0.031*<br>[0.017]   | 0      | +1  |
| 5                           | Most Recent Birth Delivered at Medical Facility (F)      | 0.022<br>[0.014]    | -0.014<br>[0.014]    | 0.011<br>[0.015]    | -0.014<br>[0.015]    | 0      | 0   |

<sup>214</sup> An “(F)” post-script indicates that the source of data is the Female Household survey; a “(G)” post-script indicates that the source of data is the Male Focus Group instrument; a “(M)” post-script indicates that the source of data is the Male Household instrument; and a “(W)” post-script indicates that the source of data is the Female Focus Group instrument.

<sup>215</sup> Shaded rows indicate substantive changes in coefficients, with red denoting a drop in significance level, orange denoting a loss of significance, grey denoting a rise in significance level, and blue denoting a gain of significance. Deeper tones represent changes of greater magnitude.

|   |                                                               |                    |                    |                    |                    |   |    |
|---|---------------------------------------------------------------|--------------------|--------------------|--------------------|--------------------|---|----|
| 5 | Mother Received Tetanus Injection during Pregnancy (F)        | 0.031<br>[0.021]   | 0.014<br>[0.024]   | 0.033<br>[0.024]   | 0.016<br>[0.026]   | 0 | 0  |
| 5 | Most Recent Illness or Injury Treated by Medical Prof. (F)    | 0.012**<br>[0.005] | 0.010**<br>[0.005] | 0.010**<br>[0.005] | 0.012**<br>[0.005] | 0 | 0  |
| 5 | Most Recent Illness or Injury Treated at Medical Facility (F) | -0.005<br>[0.010]  | 0.023**<br>[0.012] | -0.006<br>[0.014]  | 0.027*<br>[0.014]  | 0 | +1 |
| 6 | Share of Participants Whose Land Sufficiently Irrigated (G)   | -0.009<br>[0.048]  |                    | -0.009<br>[0.048]  |                    | 0 |    |
| 6 | Propn. of Land Cultivated in Spring 2011 Suff. Irrigated (M)  | 0.026<br>[0.023]   |                    | 0.026<br>[0.023]   |                    | 0 |    |
| 7 | Months Road Nearest Village Not Useable in Past Year (G)      | 0.068<br>[0.234]   | -0.182<br>[0.151]  | 0.020<br>[0.204]   | -0.175<br>[0.147]  | 0 | 0  |
| 7 | Cost of Trans. 50 kg. of Wheat to Dist. Ctr. / Bazaar (M)     | -0.019<br>[0.036]  | -0.014<br>[0.042]  | 0.003<br>[0.038]   | -0.011<br>[0.042]  | 0 | 0  |
| 7 | Duration of Most Recent Trip to Dist. Ctr. / Bazaar (M)       | -0.020<br>[0.046]  | 0.012<br>[0.046]   | -0.003<br>[0.049]  | 0.009<br>[0.046]   | 0 | 0  |
| 7 | Trips Made to District Center in Past Month (M)               | 0.016<br>[0.040]   | 0.051<br>[0.035]   | 0.002<br>[0.047]   | 0.059<br>[0.043]   | 0 | 0  |

## II. Economic Welfare

Table A10: Robustness of Economic Welfare Indicators to Interaction of Matched-Pair Fixed Effects and Period Dummies

| Midline / Endline Indicator |                                                          | Interaction         |                     | No Interaction      |                     | Change |     |
|-----------------------------|----------------------------------------------------------|---------------------|---------------------|---------------------|---------------------|--------|-----|
| H#                          | Indicator                                                | Endline             | Midline             | Endline             | Midline             | End    | Mid |
| 9                           | Economic Situation Has Improved in Past Year (F)         | 0.049***<br>[0.012] | 0.056***<br>[0.014] | 0.050***<br>[0.018] | 0.051***<br>[0.018] | 0      | 0   |
| 9                           | Economic Situation Has Improved in Past Year (M)         | 0.018*<br>[0.011]   | 0.047***<br>[0.012] | 0.025<br>[0.016]    | 0.053***<br>[0.017] | +1!    | 0   |
| 9                           | Expects Village Economy to Improve in Next Year (F)      | 0.039***<br>[0.010] | 0.046***<br>[0.014] | 0.038**<br>[0.015]  | 0.047***<br>[0.017] | +1     | 0   |
| 9                           | Expects Village Economy to Improve in Next Year (F)      | 0.021**<br>[0.009]  | 0.052***<br>[0.011] | 0.022*<br>[0.012]   | 0.050***<br>[0.014] | +1     | 0   |
| 10                          | Income Earned in Past Year (M)                           | 0.044**<br>[0.020]  | 0.038**<br>[0.019]  | 0.037<br>[0.026]    | 0.038<br>[0.024]    | +2!    | +2! |
| 10                          | Seasons in Which Income Was Earned (M)                   | 0.032<br>[0.027]    | 0.042<br>[0.029]    | 0.030<br>[0.038]    | 0.042<br>[0.040]    | 0      | 0   |
| 10                          | Sources of Income Other than Subsistence Agriculture (M) | 0.004<br>[0.012]    | 0.026**<br>[0.013]  | 0.001<br>[0.015]    | 0.027*<br>[0.015]   | 0      | +1  |
| 11                          | Annual Expenditure (M)                                   | -0.011<br>[0.021]   | 0.008<br>[0.017]    | -0.004<br>[0.026]   | 0.004<br>[0.022]    | 0      | 0   |
| 11                          | Ratio of Food Expenditure to Total Expenditure (M)       | 0.002<br>[0.005]    | 0.000<br>[0.005]    | 0.001<br>[0.007]    | -0.002<br>[0.007]   | 0      | 0   |
| 12                          | Household Assets (M)                                     | 0.036<br>[0.048]    | 0.071*<br>[0.041]   | 0.031<br>[0.058]    | 0.077<br>[0.047]    | 0      | +1! |
| 12                          | Livestock Assets (M)                                     | 0.042<br>[0.044]    | -0.029<br>[0.040]   | 0.031<br>[0.048]    | -0.032<br>[0.043]   | 0      | 0   |
| 13                          | Amount Borrowed in Past Year (M)                         | -0.176**<br>[0.084] | -0.041<br>[0.029]   | -0.176*<br>[0.099]  | -0.027<br>[0.063]   | +1     | 0   |
| 13                          | Borrowed for Food or Medical Needs in Past Year (M)      | -0.014<br>[0.013]   | -0.002<br>[0.009]   | -0.014<br>[0.017]   | -0.003<br>[0.013]   | 0      | 0   |
| 14                          | Caloric Intake Per Household Member Last Week (F)        | 0.002<br>[0.012]    | 0.023**<br>[0.011]  | 0.008<br>[0.015]    | 0.024*<br>[0.014]   | 0      | +1  |
| 14                          | Months in Past Year Household Faced Food Shortage (F)    | 0.015<br>[0.103]    |                     | 0.015<br>[0.103]    |                     | 0      |     |
| 14                          | HH Experienced Hunger At Least One Day Last Week (F)     | -0.019<br>[0.015]   | -0.009<br>[0.014]   | -0.017<br>[0.023]   | -0.003<br>[0.020]   | 0      | 0   |
| 15                          | Yield of Most Recent Harvest (M)                         | 0.001<br>[0.019]    | -0.002<br>[0.016]   | -0.007<br>[0.032]   | -0.002<br>[0.028]   | 0      | 0   |
| 15                          | Agricultural Productivity of Most Recent Harvest (M)     | 0.014<br>[0.018]    | -0.011<br>[0.021]   | 0.013<br>[0.019]    | -0.014<br>[0.023]   | 0      | 0   |
| 15                          | Proportion of Most Recent Harvest Sold (M)               | 0.540<br>[0.418]    | 0.030***<br>[0.011] | 0.476<br>[0.377]    | 0.044<br>[0.136]    | 0      | +3! |
| 15                          | Revenue from Most Recent Harvest (M)                     | 0.087<br>[0.086]    | 0.251***<br>[0.095] | 0.065<br>[0.104]    | 0.212**<br>[0.103]  | 0      | +1  |
| 16                          | Household Sold Handicrafts in Past Year (F)              | 0.012<br>[0.009]    | 0.017**<br>[0.009]  | 0.011<br>[0.011]    | 0.017*<br>[0.009]   | 0      | +1  |
| 16                          | Revenue from Handicraft Sales in Past Year (M)           | 0.121<br>[0.098]    | 0.085**<br>[0.035]  | -0.124<br>[0.158]   | 0.088**<br>[0.036]  | 0      | 0   |
| 16                          | Household Sold Animals or Animal Products Last Year (M)  | 0.021<br>[0.015]    | 0.001<br>[0.015]    | 0.021<br>[0.017]    | -0.002<br>[0.017]   | 0      | 0   |
| 16                          | Revenue from Animal Sales / Products in Past Yr. (M)     | 0.006<br>[0.044]    | -0.038<br>[0.042]   | 0.009<br>[0.049]    | -0.026<br>[0.046]   | 0      | 0   |
| 17                          | Net Migration of Households (G)                          | 0.239*<br>[0.127]   | 0.215*<br>[0.120]   | 0.218*<br>[0.124]   | 0.250**<br>[0.112]  | 0      | -1  |
| 18                          | Net Migration of Household Members (F)                   | -0.019<br>[0.013]   |                     | -0.019<br>[0.013]   |                     | 0      |     |

### III. Local Governance

Table A11: Robustness of Local Governance Indicators to Interaction of Matched-Pair Fixed Effects and Period Dummies

| Midline / Endline Indicator |                                                                                                                        | Interaction          |                     | No Interaction       |                     | Change |     |
|-----------------------------|------------------------------------------------------------------------------------------------------------------------|----------------------|---------------------|----------------------|---------------------|--------|-----|
| H#                          | Indicator                                                                                                              | Endline              | Midline             | Endline              | Midline             | End    | Mid |
| 19                          | Village Decision-Maker Identified in Baseline Survey Identified by At Least One Respondent at Endline (M)              | -0.005<br>[0.018]    | 0.004<br>[0.016]    | -0.002<br>[0.017]    | -0.001<br>[0.018]   | 0      | 0   |
| 19                          | Village Decision-Maker Frequently Identified in Baseline Survey Identified by At Least One Respondent at Endline (M)   | -0.012<br>[0.024]    | 0.025<br>[0.023]    | -0.002<br>[0.024]    | 0.018<br>[0.025]    | 0      | 0   |
| 19                          | Village Decision-Maker Infrequently Identified in Baseline Survey Identified by At Least One Respondent at Endline (M) | -0.017<br>[0.027]    | -0.019<br>[0.025]   | -0.015<br>[0.026]    | -0.023<br>[0.024]   | 0      | 0   |
| 20                          | Most Important Dec.-Maker is Elder or Council Member (F)                                                               | 0.020<br>[0.018]     | 0.050***<br>[0.016] | 0.020<br>[0.021]     | 0.051***<br>[0.019] | 0      | 0   |
| 20                          | Most Important Dec.-Maker is Elder or Council Member (M)                                                               | 0.024<br>[0.018]     | 0.123***<br>[0.017] | 0.023<br>[0.021]     | 0.123***<br>[0.019] | 0      | 0   |
| 21                          | At Least One Woman is Member of Council (M)                                                                            | 0.383***<br>[0.033]  | 0.543***<br>[0.037] | 0.382***<br>[0.034]  | 0.538***<br>[0.036] | 0      | 0   |
| 22                          | There Exists an Entity to Mediate Female Disputes (F)                                                                  | 0.002<br>[0.008]     | 0.019**<br>[0.010]  | 0.006<br>[0.012]     | 0.020<br>[0.012]    | 0      | +2! |
| 22                          | There Exists an Entity to Notarize Documents (M)                                                                       | 0.011<br>[0.008]     | 0.031***<br>[0.010] | 0.012<br>[0.013]     | 0.034**<br>[0.013]  | 0      | +1  |
| 22                          | There Exists an Entity to Mediate Disputes (M)                                                                         | 0.000<br>[0.003]     | -0.003<br>[0.003]   | 0.001<br>[0.003]     | -0.003<br>[0.003]   | 0      | 0   |
| 22                          | Entity to Distribute Assistance among Villagers (M)                                                                    | -0.004<br>[0.005]    |                     | -0.004<br>[0.005]    |                     | 0      |     |
| 23                          | Services Provided for Women by Village Assembly (F)                                                                    | 0.142***<br>[0.028]  | 0.200***<br>[0.026] | 0.138***<br>[0.040]  | 0.190***<br>[0.038] | 0      | 0   |
| 23                          | Services Provided by Village Assembly (M)                                                                              | 0.094<br>[0.079]     | 0.353***<br>[0.087] | 0.115<br>[0.107]     | 0.360***<br>[0.108] | 0      | 0   |
| 23                          | Services Provided by Headman (M)                                                                                       | -0.248**<br>[0.115]  | 0.238<br>[0.146]    | -0.269*<br>[0.155]   | 0.337**<br>[0.160]  | +1     | -2! |
| 23                          | Services Provided by Mullah and/or Religious Scholar (M)                                                               | -0.102<br>[0.126]    | 0.016<br>[0.195]    | -0.118<br>[0.164]    | 0.069<br>[0.210]    | 0      | 0   |
| 23                          | Services Provided by Commander (M)                                                                                     | 1.405<br>[1.059]     | 2.153**<br>[0.974]  | 1.293<br>[0.944]     | 2.328**<br>[1.043]  | 0      | 0   |
| 23                          | Village Assembly Meets Regularly (M)                                                                                   | 0.056***<br>[0.011]  | 0.167***<br>[0.015] | 0.050***<br>[0.014]  | 0.173***<br>[0.017] | 0      | 0   |
| 24                          | Mediator of Women's Disputes is Elder / Council Member (F)                                                             | 0.004<br>[0.016]     | 0.031***<br>[0.005] | 0.003<br>[0.021]     | 0.031**<br>[0.014]  | 0      | +1  |
| 24                          | Notarizer of Documents is Elder or Council Member (M)                                                                  | 0.035***<br>[0.012]  | 0.074***<br>[0.017] | 0.031*<br>[0.017]    | 0.070***<br>[0.020] | +2     | 0   |
| 24                          | Mediator is Elder or Council Member (M)                                                                                | 0.014<br>[0.015]     | 0.010<br>[0.014]    | 0.013<br>[0.018]     | 0.008<br>[0.017]    | 0      | 0   |
| 24                          | Distributor of Aid is Elder or Council Member (M)                                                                      | -0.004<br>[0.014]    |                     | -0.004<br>[0.014]    |                     | 0      |     |
| 25                          | Meetings of Village Assembly Attended in Past Year (M)                                                                 | -0.008<br>[0.028]    | 0.099***<br>[0.029] | -0.013<br>[0.035]    | 0.103***<br>[0.034] | 0      | 0   |
| 25                          | Desired Change in Decision of Infl. Villagers in Past Yr. (F)                                                          | 0.015***<br>[0.004]  | 0.007**<br>[0.003]  | 0.011**<br>[0.004]   | 0.007*<br>[0.004]   | +1     | +1  |
| 25                          | Desired Change in Decision of Infl. Villagers in Past Yr. (M)                                                          | 0.026***<br>[0.005]  | 0.016***<br>[0.005] | 0.025***<br>[0.006]  | 0.018***<br>[0.006] | 0      | 0   |
| 26                          | Perceives that Village Leaders Act in Interest of All (F)                                                              | -0.030*<br>[0.017]   | 0.084***<br>[0.017] | -0.025<br>[0.020]    | 0.085***<br>[0.019] | +1!    | 0   |
| 26                          | Perceives that Village Leaders Act in Interest of All (M)                                                              | -0.061***<br>[0.014] | -0.021<br>[0.014]   | -0.058***<br>[0.019] | -0.021<br>[0.017]   | 0      | 0   |
| 26                          | Village Leaders Responsive to Women's Needs (F)                                                                        | 0.017<br>[0.018]     | 0.052***<br>[0.017] | 0.030<br>[0.021]     | 0.054***<br>[0.019] | 0      | 0   |
| 26                          | Perceives that Headman Acts in Interest of All (M)                                                                     | -0.023*<br>[0.013]   | 0.010<br>[0.011]    | -0.023<br>[0.015]    | 0.008<br>[0.012]    | +1!    | 0   |

|    |                                                             |                      |                     |                      |                     |    |     |
|----|-------------------------------------------------------------|----------------------|---------------------|----------------------|---------------------|----|-----|
| 26 | Perceives that Dispute Resolution is Always Fair (M)        | -0.034*<br>[0.019]   |                     | -0.034*<br>[0.019]   |                     | 0  |     |
| 26 | Perceives that Theft Resolution is Always Fair (M)          | -0.083**<br>[0.040]  |                     | -0.083**<br>[0.040]  |                     | 0  |     |
| 26 | Expects Neediest Villagers to Benefit from Allocation (M)   | -0.020<br>[0.016]    | -0.016<br>[0.013]   | -0.017<br>[0.019]    | -0.016<br>[0.015]   | 0  | 0   |
| 26 | Satisfied with Work of Village Leaders in Past Year (F)     | 0.005<br>[0.015]     | 0.022*<br>[0.013]   | 0.015<br>[0.019]     | 0.025<br>[0.016]    | 0  | +1! |
| 26 | Satisfied with Work of Village Leaders in Past Year (M)     | -0.067***<br>[0.012] | 0.017<br>[0.012]    | -0.067***<br>[0.014] | 0.012<br>[0.015]    | 0  | 0   |
| 26 | Disagreed with Decision(s) of Village Leaders Last Year (F) | 0.014<br>[0.009]     | 0.001<br>[0.010]    | 0.011<br>[0.011]     | -0.001<br>[0.011]   | 0  | 0   |
| 26 | Disagreed with Decision(s) of Village Leaders Last Year (M) | 0.048***<br>[0.009]  | 0.034***<br>[0.006] | 0.045***<br>[0.010]  | 0.034***<br>[0.008] | 0  | 0   |
| 27 | Agricultural Tax Paid to Village Leader (M)                 | -0.018<br>[0.023]    |                     | -0.018<br>[0.023]    |                     | 0  |     |
| 28 | Prefers Rep. Assembly to Resolve Marriage Disputes (M)      | 0.019<br>[0.015]     | -0.010<br>[0.014]   | 0.031<br>[0.019]     | -0.017<br>[0.019]   | 0  | 0   |
| 28 | Prefers Rep. Assembly to Resolve Disputes (M)               | 0.005<br>[0.014]     | -0.009<br>[0.014]   | 0.017<br>[0.017]     | -0.014<br>[0.016]   | 0  | 0   |
| 28 | Prefers Rep. Assembly to Select & Manage Projects (M)       | 0.027*<br>[0.014]    | 0.047***<br>[0.013] | 0.034**<br>[0.017]   | 0.043***<br>[0.016] | -1 | 0   |
| 28 | Prefers Rep. Assembly to Inform Gov't (M)                   | -0.013<br>[0.015]    | 0.032**<br>[0.015]  | -0.004<br>[0.019]    | 0.023<br>[0.018]    | 0  | +2! |
| 28 | Suggests Rep. Assembly as Recourse (F)                      | -0.006<br>[0.017]    | 0.050***<br>[0.016] | -0.006<br>[0.020]    | 0.046**<br>[0.020]  | 0  | +1  |
| 28 | Suggests Rep. Assembly as Recourse (M)                      | 0.013<br>[0.018]     | 0.052***<br>[0.017] | 0.014<br>[0.021]     | 0.051**<br>[0.020]  | 0  | +1  |

## IV. Political Attitudes and State-Building

Table A12: Robustness of Political Attitudes and State-Building Indicators to Interaction of Matched-Pair Fixed Effects and Period Dummies

| Midline / Endline Indicator |                                                              | Interaction         |                     | No Interaction      |                     | Change |     |
|-----------------------------|--------------------------------------------------------------|---------------------|---------------------|---------------------|---------------------|--------|-----|
| H#                          | Indicator                                                    | Endline             | Midline             | Endline             | Midline             | End    | Mid |
| 29                          | Prefers Villagers to Participate in Imp. Decisions (F)       | -0.009<br>[0.019]   |                     | -0.009<br>[0.019]   |                     | 0      |     |
| 29                          | Prefers Villagers to Participate in Imp. Decisions (M)       | -0.006<br>[0.015]   |                     | -0.006<br>[0.015]   |                     | 0      |     |
| 29                          | Prefers Election to Select Headman (F)                       | 0.031*<br>[0.016]   | 0.034**<br>[0.015]  | 0.029<br>[0.020]    | 0.028<br>[0.018]    | +1!    | +2! |
| 29                          | Prefers Election to Select Headman (M)                       | 0.044***<br>[0.012] | 0.078***<br>[0.013] | 0.054***<br>[0.016] | 0.073***<br>[0.016] | 0      | 0   |
| 29                          | Prefers Selection of President by Secret Ballot Election (M) | -0.006<br>[0.007]   |                     | -0.006<br>[0.007]   |                     | 0      |     |
| 29                          | Prefers Selection of Provincial Governor by Election (M)     | 0.002<br>[0.014]    | 0.010<br>[0.012]    | 0.004<br>[0.018]    | 0.006<br>[0.016]    | 0      | 0   |
| 29                          | Believes it Appropriate to Discuss Gov'n Issues (M)          | 0.007<br>[0.015]    |                     | 0.007<br>[0.015]    |                     | 0      |     |
| 30                          | Named At Least One Member of Parliament (F)                  | 0.013<br>[0.012]    | 0.005<br>[0.006]    | 0.010<br>[0.016]    | 0.005<br>[0.011]    | 0      | 0   |
| 30                          | Named At Least One Member of Parliament (F)                  | 0.000<br>[0.012]    | 0.001<br>[0.013]    | -0.010<br>[0.019]   | 0.003<br>[0.018]    | 0      | 0   |
| 30                          | Voted in 2010 Parliamentary Election (F)                     | 0.060***<br>[0.017] |                     | 0.060***<br>[0.017] |                     | 0      |     |
| 30                          | Voted in 2010 Parliamentary Election (M)                     | 0.035***<br>[0.010] |                     | 0.035***<br>[0.010] |                     | 0      |     |
| 31                          | Identifies Predominantly as Afghan (M)                       | 0.006<br>[0.009]    |                     | 0.007<br>[0.009]    |                     | 0      |     |
| 31                          | Prefers that Gov't Prosecutes Criminals (Indirect – M)       | 0.032*<br>[0.018]   | 0.020<br>[0.016]    | 0.022<br>[0.022]    | 0.020<br>[0.020]    | +1!    | 0   |
| 31                          | Prefers that Gov't Prosecutes Criminals (Direct – M)         | 0.030**<br>[0.015]  | -0.004<br>[0.013]   | 0.021<br>[0.021]    | 0.000<br>[0.019]    | +2!    | 0   |
| 31                          | Prefers that Gov't Set Curriculum (M)                        | 0.019<br>[0.018]    |                     | 0.019<br>[0.018]    |                     | 0      |     |
| 31                          | Prefers Centralized Government (M)                           | 0.002<br>[0.014]    |                     | 0.002<br>[0.014]    |                     | 0      |     |
| 31                          | Prefers People to Have ID / Register Life Events (M)         | 0.013**<br>[0.005]  | -0.005<br>[0.009]   | 0.012<br>[0.016]    | -0.007<br>[0.016]   | +2!    | 0   |
| 31                          | Prefers that Income Earners Pay Tax to Government (M)        | 0.008<br>[0.008]    | 0.014*<br>[0.007]   | 0.005<br>[0.010]    | 0.014<br>[0.010]    | 0      | +1! |
| 32                          | Village Visited by District Government In Past Year (G)      | 0.062<br>[0.039]    | 0.036<br>[0.039]    | 0.054<br>[0.040]    | 0.046<br>[0.038]    | 0      | 0   |
| 32                          | Village Visited by Central Gov't Officials in Past Yr. (G)   | 0.017<br>[0.034]    | 0.099***<br>[0.026] | 0.024<br>[0.032]    | 0.093***<br>[0.025] | 0      | 0   |
| 32                          | Village Visited by ANSF in Past Year (G)                     | 0.028<br>[0.041]    | 0.045<br>[0.031]    | 0.004<br>[0.038]    | 0.053*<br>[0.031]   | 0      | -1! |
| 33                          | Perceives that President Acts in Interest of All (M)         | 0.024**<br>[0.011]  | 0.040***<br>[0.012] | 0.026*<br>[0.015]   | 0.045***<br>[0.015] | +1     | 0   |
| 33                          | Perceives that Parliament Members Act for All (M)            | 0.017<br>[0.014]    | 0.062***<br>[0.014] | 0.019<br>[0.019]    | 0.061***<br>[0.018] | 0      | 0   |
| 33                          | Perceives that Central Gov't Officials Act for All (M)       | 0.042***<br>[0.014] | 0.046***<br>[0.014] | 0.036*<br>[0.019]   | 0.052***<br>[0.019] | +2     | 0   |
| 33                          | Perceives that Government Judges Act for All (M)             | 0.030**<br>[0.014]  | 0.051***<br>[0.015] | 0.027<br>[0.020]    | 0.057***<br>[0.020] | +2!    | 0   |
| 33                          | Perceives that Police Act for All (M)                        | 0.018<br>[0.014]    | 0.016<br>[0.013]    | 0.013<br>[0.020]    | -0.013<br>[0.019]   | 0      | 0   |
| 33                          | Perceives that Army Soldiers Act for All (M)                 | 0.004<br>[0.011]    |                     | 0.004<br>[0.011]    |                     | 0      |     |

|    |                                                             |                     |                     |                    |                     |     |    |
|----|-------------------------------------------------------------|---------------------|---------------------|--------------------|---------------------|-----|----|
| 33 | Perceives that Living Standards Improved in Past 9 Yrs. (F) | 0.022<br>[0.016]    |                     | 0.022<br>[0.016]   |                     | 0   |    |
| 33 | Perceives that Living Standards Improved in Past 9 Yrs. (M) | 0.000<br>[0.013]    |                     | 0.000<br>[0.013]   |                     | 0   |    |
| 34 | Perceives that Dist. Governor Acts in Interest of All (M)   | 0.034***<br>[0.013] | 0.058***<br>[0.014] | 0.024<br>[0.018]   | 0.062***<br>[0.017] | +3! | 0  |
| 34 | Perceives that Prov. Governor Acts in Interest of All (M)   | 0.028**<br>[0.014]  | 0.055***<br>[0.014] | 0.027<br>[0.019]   | 0.059***<br>[0.018] | +2! | 0  |
| 35 | Perceives that NGO Employees Act in Interest of All (M)     | 0.011<br>[0.013]    | 0.046***<br>[0.014] | 0.015<br>[0.017]   | 0.046***<br>[0.017] | 0   | 0  |
| 35 | Perceives that ISAF Soldiers Act in Interest of All (M)     | 0.039***<br>[0.012] | 0.036**<br>[0.014]  | 0.036**<br>[0.015] | 0.035**<br>[0.017]  | +1  | 0  |
| 35 | Believes that Gov't Will Control District after 2014 (M)    | -0.008<br>[0.015]   |                     | -0.008<br>[0.015]  |                     | 0   |    |
| 36 | Village Experienced Attack in Past Year (G)                 | -0.034<br>[0.032]   | 0.000<br>[0.021]    | -0.010<br>[0.027]  | -0.003<br>[0.021]   | 0   | 0  |
| 36 | Village Experienced Attack in Past Year (M)                 | -0.010<br>[0.010]   | -0.005<br>[0.008]   | -0.010<br>[0.012]  | -0.008<br>[0.010]   | 0   | 0  |
| 37 | Agricultural Tax Paid to Insurgent Group (M)                | -0.006<br>[0.005]   |                     | -0.006<br>[0.005]  |                     | 0   |    |
| 38 | Perceives Improvement in Safety of Women (F)                | 0.025<br>[0.016]    | 0.041***<br>[0.014] | 0.030<br>[0.023]   | 0.045***<br>[0.020] | 0   | +1 |
| 38 | Perceives Improvement in Safety of Girls (F)                | 0.007<br>[0.018]    | 0.030**<br>[0.015]  | 0.017<br>[0.025]   | 0.038*<br>[0.020]   | 0   | +1 |
| 38 | Perceives Improvement in Local Security (M)                 | 0.044***<br>[0.015] | 0.050***<br>[0.013] | 0.052**<br>[0.026] | 0.046**<br>[0.022]  | +1  | +1 |
| 38 | Reports Personal Impact of Local Insecurity (M)             | 0.009<br>[0.008]    | 0.006<br>[0.006]    | 0.006<br>[0.009]   | 0.005<br>[0.008]    | 0   | 0  |

## V. Social Norms

Table A13: Robustness of Social Norms Indicators to Interaction of Matched-Pair Fixed Effects and Period Dummies

| Midline / Endline Indicator |                                                          | Interactions        |                     | No Interactions     |                    | Change |     |
|-----------------------------|----------------------------------------------------------|---------------------|---------------------|---------------------|--------------------|--------|-----|
| H#                          | Indicator                                                | Endline             | Midline             | Endline             | Midline            | End    | Mid |
| 39                          | Intra-Village Dispute in Past Year (G)                   | -0.046<br>[0.052]   | 0.040<br>[0.048]    | -0.058<br>[0.052]   | 0.049<br>[0.046]   | 0      | 0   |
| 39                          | Intra-Village Feud in Past 2 Years (M)                   | -0.002<br>[0.007]   | 0.013*<br>[0.007]   | -0.002<br>[0.009]   | 0.013<br>[0.008]   | 0      | +1! |
| 39                          | Dispute With Other Villager in Past Year (M)             | -0.011**<br>[0.005] | -0.007<br>[0.005]   | -0.011*<br>[0.006]  | -0.006<br>[0.006]  | +1     | 0   |
| 39                          | Proportion of Past Year's Disputes Resolved (G)          | -0.056<br>[0.049]   | -0.059<br>[0.085]   | -0.064<br>[0.039]   | -0.034<br>[0.048]  | 0      | 0   |
| 40                          | Willing to Ask Non-Family Member to Collect Money (F)    | 0.019<br>[0.016]    | 0.030**<br>[0.015]  | 0.013<br>[0.020]    | 0.029<br>[0.019]   | 0      | +2! |
| 40                          | Willing to Ask Non-Family Member to Collect Money (M)    | 0.023***<br>[0.009] | 0.017<br>[0.011]    | 0.026**<br>[0.012]  | 0.013<br>[0.013]   | +1     | 0   |
| 40                          | Non-Family Member Collected Money for Respondent (F)     | -0.001<br>[0.010]   | 0.015<br>[0.011]    | -0.004<br>[0.013]   | 0.020<br>[0.013]   | 0      | 0   |
| 40                          | Non-Family Member Collected Money for Respondent (M)     | 0.016<br>[0.014]    | -0.010<br>[0.013]   | 0.011<br>[0.019]    | -0.009<br>[0.017]  | 0      | 0   |
| 40                          | Believes Villagers Are Always Willing to Help Others (M) | -0.007<br>[0.014]   | 0.026*<br>[0.014]   | -0.010<br>[0.018]   | 0.025<br>[0.018]   | 0      | +1! |
| 40                          | Paid Charity or Paid Agricultural Tax to Needy (M)       | 0.018<br>[0.022]    | 0.011<br>[0.010]    | 0.014<br>[0.034]    | 0.008<br>[0.016]   | 0      | 0   |
| 41                          | Completed Calculation Correctly (F)                      | 0.009**<br>[0.004]  | 0.013<br>[0.015]    | 0.013<br>[0.012]    | 0.018<br>[0.018]   | +2!    | 0   |
| 41                          | Completed Calculation Correctly (M)                      | -0.024**<br>[0.012] | 0.023**<br>[0.009]  | -0.025<br>[0.016]   | 0.024*<br>[0.013]  | +2!    | +1  |
| 41                          | Read Basic Sentence (F)                                  | 0.001<br>[0.004]    | 0.010***<br>[0.004] | 0.000<br>[0.005]    | 0.010**<br>[0.004] | 0      | +1  |
| 41                          | Read Basic Sentence (M)                                  | 0.001<br>[0.012]    | 0.023*<br>[0.012]   | -0.001<br>[0.013]   | 0.026*<br>[0.014]  | 0      | 0   |
| 42                          | Happy or Very Happy (F)                                  | 0.021<br>[0.013]    | 0.015<br>[0.012]    | 0.022<br>[0.017]    | 0.014<br>[0.015]   | 0      | 0   |
| 42                          | Happy or Very Happy (M)                                  | 0.013<br>[0.011]    | 0.003<br>[0.011]    | 0.010<br>[0.014]    | 0.003<br>[0.012]   | 0      | 0   |
| 42                          | Unhappy or Very Unhappy (F)                              | -0.015**<br>[0.007] | -0.017**<br>[0.007] | -0.016*<br>[0.008]  | -0.017*<br>[0.008] | +1     | +1  |
| 42                          | Unhappy or Very Unhappy (M)                              | -0.005<br>[0.008]   | 0.002<br>[0.008]    | -0.002<br>[0.010]   | 0.003<br>[0.009]   | 0      | 0   |
| 43                          | Appropriate for Women to Vote in National Elections (M)  | 0.028***<br>[0.009] | 0.003<br>[0.007]    | 0.029**<br>[0.012]  | 0.004<br>[0.010]   | +1     | 0   |
| 43                          | Prefers Women Involved in Selection of Prov. Gov. (M)    | 0.008<br>[0.018]    | 0.005<br>[0.013]    | 0.002<br>[0.019]    | 0.008<br>[0.016]   | 0      | 0   |
| 43                          | Appropriate for Women to Seek Elected Office (F)         | 0.010<br>[0.012]    |                     | 0.010<br>[0.012]    |                    | 0      |     |
| 43                          | Appropriate for Women to Seek Elected Office (M)         | 0.033***<br>[0.012] |                     | 0.033***<br>[0.012] |                    | 0      |     |
| 43                          | Men Believe It Appropriate for Women to Seek Office (F)  | 0.015<br>[0.017]    |                     | 0.015<br>[0.017]    |                    | 0      |     |
| 44                          | Agrees with Women Working in Government & NGOs (F)       | 0.031**<br>[0.014]  | 0.027**<br>[0.012]  | 0.028<br>[0.020]    | 0.033**<br>[0.016] | +2!    | 0   |
| 44                          | Agrees with Women Working in Government & NGOs (M)       | 0.032**<br>[0.014]  | 0.012<br>[0.012]    | 0.030*<br>[0.016]   | 0.015<br>[0.014]   | +1     | 0   |
| 44                          | Men Agree with Women Working in Gov't & NGOs (F)         | 0.018<br>[0.016]    |                     | 0.018<br>[0.016]    |                    | 0      |     |
| 44                          | Willing to Allow Fem. Relative to See Male Doctor (M)    | 0.014**<br>[0.007]  | -0.004<br>[0.008]   | 0.008<br>[0.010]    | -0.002<br>[0.010]  | +2!    | 0   |

|    |                                                           |                      |                     |                      |                     |     |     |
|----|-----------------------------------------------------------|----------------------|---------------------|----------------------|---------------------|-----|-----|
| 44 | Willing to Be Seen by Male Doctor (F)                     | -0.008<br>[0.008]    | 0.000<br>[0.009]    | -0.007<br>[0.010]    | 0.001<br>[0.011]    | 0   | 0   |
| 45 | Girl Aspires to Work in Professional Occupation (F)       | 0.029<br>[0.019]     |                     | 0.029<br>[0.019]     |                     | 0   |     |
| 45 | Girl Prefers to Be Educated Up to University (F)          | 0.005<br>[0.016]     |                     | 0.005<br>[0.016]     |                     | 0   |     |
| 45 | Girl Wants to Live in City (F)                            | 0.004<br>[0.028]     |                     | 0.004<br>[0.028]     |                     | 0   |     |
| 45 | Girls Should be Educated to Same Level as Boys (M)        | 0.022<br>[0.015]     |                     | 0.022<br>[0.015]     |                     | 0   |     |
| 45 | Believes Girls Should be Educated Up to University (F)    | -0.001<br>[0.009]    |                     | -0.001<br>[0.009]    |                     | 0   |     |
| 45 | Men Believe Girls Should be Educated Up to University (F) | 0.004<br>[0.008]     |                     | 0.004<br>[0.008]     |                     | 0   |     |
| 45 | Prefers Equal Number of Male and Female Births (F)        | -0.011<br>[0.021]    | 0.023<br>[0.023]    | -0.003<br>[0.023]    | 0.025<br>[0.024]    | 0   | 0   |
| 46 | Prefers Women To Be Involved In Selecting Headman (F)     | 0.043***<br>[0.016]  | 0.029*<br>[0.016]   | 0.040*<br>[0.021]    | 0.027<br>[0.021]    | +2  | +1! |
| 46 | Prefers Women To Be Involved In Selecting Headman (M)     | 0.042***<br>[0.013]  | 0.072***<br>[0.014] | 0.053***<br>[0.017]  | 0.066***<br>[0.018] | 0   | 0   |
| 46 | Prefers Women to Be Members of Village Council (F)        | 0.006<br>[0.012]     | 0.008<br>[0.015]    | 0.009<br>[0.019]     | 0.012<br>[0.020]    | 0   | 0   |
| 46 | Prefers Women to Be Members of Village Council (M)        | 0.033***<br>[0.011]  | -0.018*<br>[0.010]  | 0.030**<br>[0.014]   | -0.015<br>[0.014]   | +1  | +1! |
| 46 | Men Prefer Women to Be Members of Council (F)             | 0.008<br>[0.012]     |                     | 0.008<br>[0.012]     |                     | 0   |     |
| 46 | Prefers Women to Participate in Dispute Resolution (M)    | 0.024<br>[0.016]     |                     | 0.024<br>[0.016]     |                     | 0   |     |
| 47 | Woman in Village Well-Respected by All (F)                | 0.017<br>[0.019]     | 0.076***<br>[0.015] | 0.016<br>[0.021]     | 0.075***<br>[0.018] | 0   | 0   |
| 47 | Woman in Village Well-Respected by All (M)                | 0.044***<br>[0.016]  | 0.087***<br>[0.013] | 0.039<br>[0.024]     | 0.094***<br>[0.021] | +3! | 0   |
| 47 | Women Involved in Resolution of Most Recent Dispute (F)   | 0.009<br>[0.006]     |                     | 0.009<br>[0.006]     |                     | 0   |     |
| 47 | Women Involved in Resolution of Most Recent Dispute (M)   | 0.019***<br>[0.006]  |                     | 0.020***<br>[0.006]  |                     | 0   |     |
| 47 | Women Participate in Dispute Resolution (F)               | 0.012**<br>[0.006]   |                     | 0.012**<br>[0.006]   |                     | 0   |     |
| 47 | Women Participate in Dispute Resolution (M)               | 0.028**<br>[0.013]   |                     | 0.028**<br>[0.013]   |                     | 0   |     |
| 47 | Women's Views Considered in Allocating Food Aid (F)       | 0.035***<br>[0.010]  |                     | 0.035***<br>[0.010]  |                     | 0   |     |
| 47 | Women's Views Considered in Allocating Food Aid (M)       | 0.039**<br>[0.015]   |                     | 0.039**<br>[0.015]   |                     | 0   |     |
| 48 | Socializes With Other Women in the Village (F)            | 0.011<br>[0.013]     | 0.011<br>[0.012]    | 0.004<br>[0.016]     | 0.012<br>[0.014]    | 0   | 0   |
| 48 | Knows At Least One Household in Other Village (F)         | 0.002<br>[0.005]     |                     | 0.002<br>[0.005]     |                     | 0   |     |
| 48 | Discussed Marriage, Birth or Family Issues (F)            | -0.012<br>[0.014]    |                     | -0.012<br>[0.014]    |                     | 0   |     |
| 48 | Discussed Disputes or Local Governance Issues (F)         | -0.030***<br>[0.011] |                     | -0.030***<br>[0.011] |                     | 0   |     |
| 49 | Trips Outside Compound in Past 30 Days (F)                | 0.003<br>[0.046]     | 0.046<br>[0.041]    | -0.043<br>[0.072]    | 0.029<br>[0.068]    | 0   | 0   |
| 49 | Leaves Compound Alone (F)                                 | -0.010<br>[0.018]    | 0.031**<br>[0.014]  | -0.014<br>[0.021]    | 0.027<br>[0.019]    | 0   | +2! |
| 49 | Never or Only Sometimes Wears Chadori (F)                 | 0.000<br>[0.011]     | 0.015<br>[0.015]    | -0.011<br>[0.018]    | 0.011<br>[0.021]    | 0   | 0   |

|    |                                                         |                     |                     |                     |                     |     |     |
|----|---------------------------------------------------------|---------------------|---------------------|---------------------|---------------------|-----|-----|
| 49 | Visited Nearest Village in Past Year (F)                | 0.053***<br>[0.016] | 0.040***<br>[0.015] | 0.054***<br>[0.020] | 0.038*<br>[0.020]   | 0   | +2  |
| 49 | Visited District Center in Past Month (F)               | 0.043***<br>[0.016] | 0.033*<br>[0.018]   | 0.039**<br>[0.019]  | 0.030<br>[0.020]    | +1  | +1! |
| 49 | Held Meeting with Women from Other Villages (W)         | 0.019<br>[0.030]    | 0.078***<br>[0.023] | 0.017<br>[0.027]    | 0.073***<br>[0.022] | 0   | 0   |
| 49 | Village Women Held Meeting with District Government (W) | 0.019<br>[0.021]    | 0.042***<br>[0.015] | 0.012<br>[0.020]    | 0.041**<br>[0.017]  | 0   | +1  |
| 50 | Generated Income for Household in Past Year (F)         | 0.025<br>[0.016]    | 0.053***<br>[0.016] | 0.018<br>[0.024]    | 0.051**<br>[0.023]  | 0   | +1  |
| 50 | Exerts Control over Income Earned (F)                   | -0.014<br>[0.021]   | 0.001<br>[0.022]    | -0.013<br>[0.024]   | -0.016<br>[0.025]   | 0   | 0   |
| 50 | Owens At Least One Type of Asset (F)                    | -0.003<br>[0.016]   | 0.010<br>[0.015]    | -0.005<br>[0.021]   | 0.013<br>[0.021]    | 0   | 0   |
| 50 | Exerts Control Over Decisions Pertaining to Assets (F)  | 0.042*<br>[0.023]   | -0.007<br>[0.017]   | 0.044<br>[0.027]    | -0.006<br>[0.024]   | +1! | 0   |
| 50 | Women Consulted on Decisions on Children (F)            | -0.031*<br>[0.017]  | -0.016<br>[0.013]   | -0.034*<br>[0.020]  | -0.017<br>[0.018]   | 0   | 0   |
| 50 | Women Consulted on Decisions on Purchases (F)           | -0.001<br>[0.014]   | -0.020<br>[0.014]   | -0.003<br>[0.019]   | -0.023<br>[0.018]   | 0   | 0   |

# Appendix V – Test of Robustness of Family, Group & Hypotheses Results to Interaction of Fixed Effects and Period Dummies<sup>216</sup>

## I. Hypotheses Results

Table A14: Robustness of Hypotheses to Interaction of Matched-Pair Fixed Effects and Period Dummies

| H#                                             | Hypothesis                                                                     | Endline     |          |                |          | Midline     |          |                |          | Change |     |
|------------------------------------------------|--------------------------------------------------------------------------------|-------------|----------|----------------|----------|-------------|----------|----------------|----------|--------|-----|
|                                                |                                                                                | Interaction |          | No Interaction |          | Interaction |          | No Interaction |          | End    | Mid |
|                                                |                                                                                | Coeff.      | p-Values | Coeff.         | p-Values | Coeff.      | p-Values | Coeff.         | p-Values |        |     |
| Access to Utilities, Services & Infrastructure |                                                                                |             |          |                |          |             |          |                |          |        |     |
| 1                                              | Access to Drinking Water                                                       | 0.070       | 0.002    | 0.064          | 0.028    | 0.060       | 0.006    | 0.060          | 0.023    | +1     | +1  |
| 2                                              | Access to Electricity                                                          | 0.093       | 0.037    | 0.108          | 0.045    | 0.058       | 0.215    | 0.054          | 0.300    | 0      | 0   |
| 3                                              | Counseling Services for Women                                                  | 0.196       | 0.000    | 0.192          | 0.001    | 0.244       | 0.000    | 0.219          | 0.000    | 0      | 0   |
| 4                                              | Access to Education                                                            | 0.058       | 0.035    | 0.058          | 0.035    | -           | -        | -              | -        | 0      | -   |
| 5                                              | Health Services & Outcomes                                                     | 0.044       | 0.001    | 0.040          | 0.013    | 0.002       | 0.876    | 0.009          | 0.597    | +1     | 0   |
| 6                                              | Access to Irrigation                                                           | 0.015       | 0.696    | 0.015          | 0.696    | -           | -        | -              | -        | 0      | -   |
| 7                                              | Accessibility & Mobility                                                       | 0.006       | 0.843    | -0.002         | 0.954    | 0.026       | 0.326    | 0.027          | 0.384    | 0      | 0   |
| 8                                              | Project Preferences of Male Villagers                                          | -           | -        | -              | -        | -           | -        | -              | -        | -      | -   |
| Economic Activity                              |                                                                                |             |          |                |          |             |          |                |          |        |     |
| 9                                              | Perceptions of Local Economy                                                   | 0.068       | 0.000    | 0.080          | 0.001    | 0.112       | 0.000    | 0.118          | 0.000    | 0      | 0   |
| 10                                             | Security of Household Income                                                   | 0.031       | 0.076    | 0.023          | 0.355    | 0.048       | 0.010    | 0.049          | 0.059    | +1!    | +2  |
| 11                                             | Household Consumption Expenditure                                              | -0.013      | 0.541    | -0.008         | 0.781    | 0.007       | 0.751    | 0.007          | 0.796    | 0      | 0   |
| 12                                             | Household Assets                                                               | 0.024       | 0.221    | 0.020          | 0.428    | 0.012       | 0.509    | 0.013          | 0.553    | 0      | 0   |
| 13                                             | Borrowing for Food & Medical Needs                                             | 0.056       | 0.075    | 0.056          | 0.168    | 0.013       | 0.318    | 0.009          | 0.721    | +1!    | 0   |
| 14                                             | Food Security                                                                  | -0.009      | 0.596    | -0.004         | 0.831    | 0.011       | 0.289    | 0.016          | 0.282    | 0      | 0   |
| 15                                             | Agricultural Productivity & Access to Markets                                  | 0.441       | 0.140    | 0.411          | 0.163    | 0.039       | 0.010    | 0.034          | 0.773    | 0      | +3! |
| 16                                             | Non-Agricultural Productivity & Access to Markets                              | 0.031       | 0.045    | -0.007         | 0.843    | 0.019       | 0.214    | 0.018          | 0.358    | +2!    | 0   |
| 17                                             | Net Migration of Households                                                    | 0.179       | 0.062    | 0.164          | 0.080    | 0.161       | 0.074    | 0.187          | 0.026    | 0      | -1  |
| 18                                             | Net Migration of Household Members                                             | -0.036      | 0.161    | -0.036         | 0.161    | -           | -        | -              | -        | -      | -   |
| Local Governance                               |                                                                                |             |          |                |          |             |          |                |          |        |     |
| 19                                             | Continuity of Local Leadership                                                 | 0.019       | 0.460    | 0.009          | 0.769    | -0.009      | 0.716    | 0.001          | 0.977    | 0      | 0   |
| 20                                             | Affiliation of Local Leadership with Representative Assemblies                 | 0.040       | 0.128    | 0.043          | 0.193    | 0.165       | 0.000    | 0.172          | 0.000    | 0      | 0   |
| 21                                             | Female Representation in Local Assemblies                                      | 0.896       | 0.000    | 0.894          | 0.000    | 1.271       | 0.000    | 1.261          | 0.000    | 0      | 0   |
| 22                                             | Provision of Local Governance Services                                         | 0.004       | 0.797    | 0.009          | 0.636    | 0.027       | 0.035    | 0.030          | 0.054    | 0      | +1  |
| 23                                             | Activity of Village Leaders & Institutions                                     | 0.062       | 0.001    | 0.067          | 0.013    | 0.133       | 0.000    | 0.112          | 0.000    | +1     | 0   |
| 24                                             | Role of Representative Assemblies in Provision of Local Governance Services    | 0.026       | 0.188    | 0.022          | 0.376    | 0.064       | 0.000    | 0.061          | 0.002    | 0      | 0   |
| 25                                             | Participation in Local Governance                                              | 0.094       | 0.000    | 0.082          | 0.001    | 0.091       | 0.000    | 0.096          | 0.000    | 0      | 0   |
| 26                                             | Perceptions of Quality of Local Governance                                     | -0.079      | 0.000    | -0.073         | 0.002    | 0.011       | 0.395    | 0.012          | 0.430    | 0      | 0   |
| 27                                             | Informal Taxation by Village Leaders                                           | -0.037      | 0.426    | -0.037         | 0.426    | -           | -        | -              | -        | 0      | -   |
| 28                                             | Preferences for Representative Assemblies to Provide Local Governance Services | 0.015       | 0.366    | 0.031          | 0.149    | 0.054       | 0.002    | 0.045          | 0.029    | 0      | +1  |

<sup>216</sup> Shaded rows indicate substantive changes in coefficients, with red denoting a drop in significance level, orange denoting a loss of significance, grey denoting a rise in significance level, and blue denoting a gain of significance. Deeper tones represent changes of greater magnitude.

| Political Attitudes & State-Building |                                                              |        |       |        |       |        |       |        |       |     |    |
|--------------------------------------|--------------------------------------------------------------|--------|-------|--------|-------|--------|-------|--------|-------|-----|----|
| 29                                   | Acceptance of Democratic Norms of Governance                 | 0.017  | 0.092 | 0.022  | 0.076 | 0.037  | 0.000 | 0.033  | 0.001 | 0   | 0  |
| 30                                   | Participation in National Elections and Political Knowledge  | 0.061  | 0.000 | 0.054  | 0.014 | 0.005  | 0.564 | 0.004  | 0.801 | +1  | 0  |
| 31                                   | Acceptance of Central Government Authority                   | 0.035  | 0.010 | 0.028  | 0.093 | 0.009  | 0.290 | 0.009  | 0.454 | +2  | 0  |
| 32                                   | Linkages between Villages and Government                     | 0.085  | 0.047 | 0.071  | 0.245 | 0.189  | 0.000 | 0.201  | 0.000 | +2! | 0  |
| 33                                   | Perceptions of Central Government                            | 0.038  | 0.026 | 0.036  | 0.080 | 0.054  | 0.000 | 0.051  | 0.000 | +1  | 0  |
| 34                                   | Perceptions of Sub-National Government                       | 0.058  | 0.010 | 0.050  | 0.147 | 0.109  | 0.000 | 0.120  | 0.000 | +3! | 0  |
| 35                                   | Perceptions of Government-Allied Actors                      | 0.031  | 0.045 | 0.034  | 0.102 | 0.058  | 0.000 | 0.058  | 0.005 | +2! | 0  |
| 36                                   | Violent Incidents                                            | 0.080  | 0.095 | 0.042  | 0.495 | 0.010  | 0.815 | 0.023  | 0.665 | +1! | 0  |
| 37                                   | Informal Taxation by Insurgent Groups                        | -0.042 | 0.266 | -0.042 | 0.266 | -      | -     | -      | -     | 0   | -  |
| 38                                   | Perceptions of Local Security                                | 0.026  | 0.151 | 0.045  | 0.168 | 0.054  | 0.002 | 0.061  | 0.030 | 0   | +1 |
| Social Norms                         |                                                              |        |       |        |       |        |       |        |       |     |    |
| 39                                   | Intra-Village Disputes & Resolution Rates                    | -0.001 | 0.980 | -0.009 | 0.800 | -0.065 | 0.037 | -0.060 | 0.096 | 0   | +1 |
| 40                                   | Interpersonal Trust                                          | 0.023  | 0.057 | 0.018  | 0.363 | 0.032  | 0.009 | 0.032  | 0.044 | +1! | +1 |
| 41                                   | Literacy and Computational Ability                           | -0.005 | 0.732 | -0.001 | 0.966 | 0.047  | 0.001 | 0.057  | 0.003 | 0   | 0  |
| 42                                   | Happiness                                                    | 0.036  | 0.030 | 0.035  | 0.113 | 0.022  | 0.195 | 0.022  | 0.284 | +2! | 0  |
| 43                                   | Acceptance of Female Political Participation                 | 0.046  | 0.003 | 0.046  | 0.005 | 0.004  | 0.554 | 0.006  | 0.535 | 0   | 0  |
| 44                                   | Acceptance of Female Economic & Social Participation         | 0.034  | 0.006 | 0.031  | 0.075 | 0.012  | 0.275 | 0.019  | 0.183 | +2  | 0  |
| 45                                   | Cultural Constraints to Education of Girls                   | 0.015  | 0.266 | 0.017  | 0.220 | 0.005  | 0.264 | 0.007  | 0.273 | 0   | 0  |
| 46                                   | Acceptance of Female Participation in Local Governance       | 0.054  | 0.000 | 0.059  | 0.001 | 0.028  | 0.002 | 0.029  | 0.026 | 0   | +1 |
| 47                                   | Women’s Involvement in Local Governance                      | 0.081  | 0.000 | 0.079  | 0.000 | 0.039  | 0.000 | 0.041  | 0.000 | 0   | 0  |
| 48                                   | Social Activity among Women                                  | -0.014 | 0.391 | -0.017 | 0.303 | 0.006  | 0.343 | 0.006  | 0.417 | 0   | 0  |
| 49                                   | Women’s Mobility                                             | 0.051  | 0.027 | 0.039  | 0.185 | 0.123  | 0.000 | 0.120  | 0.000 | +2! | 0  |
| 50                                   | Women’s Participation in Economic Activity & Decision-Making | 0.005  | 0.688 | 0.003  | 0.905 | 0.006  | 0.621 | 0.001  | 0.967 | 0   | 0  |

## II. Family & Group Results

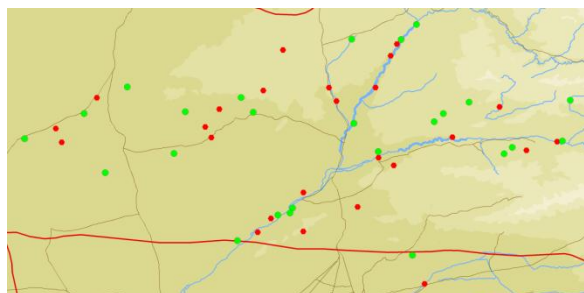
Table A15: Robustness of Family and Group Results to Interaction of Matched-Pair Fixed Effects and Period Dummies

| Family                                         | Endline     |        |              |        | Midline     |        |              |        | Change |     | Group                     | Endline     |        |                |        | Midline     |        |                |        | Change |     |
|------------------------------------------------|-------------|--------|--------------|--------|-------------|--------|--------------|--------|--------|-----|---------------------------|-------------|--------|----------------|--------|-------------|--------|----------------|--------|--------|-----|
|                                                | Interaction |        | No Interact. |        | Interaction |        | No Interact. |        |        |     |                           | Interaction |        | No Interaction |        | Interaction |        | No Interaction |        |        |     |
|                                                | Coeff.      | p-val. | Coeff.       | p-val. | Coeff.      | p-val. | Coeff.       | p-val. | End    | Mid |                           | Coeff.      | p-val. | Coeff.         | p-val. | Coeff.      | p-val. | Coeff.         | p-val. | End    | Mid |
| Access to Utilities, Services & Infrastructure | 0.049       | 0.000  | 0.046        | 0.001  | 0.028       | 0.001  | 0.030        | 0.003  | 0      | 0   | Utilities                 | 0.073       | 0.000  | 0.071          | 0.006  | 0.059       | 0.003  | 0.058          | 0.018  | 0      | +1  |
|                                                |             |        |              |        |             |        |              |        |        |     | Services                  | 0.058       | 0.000  | 0.055          | 0.000  | 0.019       | 0.042  | 0.022          | 0.065  | 0      | +1  |
|                                                |             |        |              |        |             |        |              |        |        |     | Infrastructure            | 0.011       | 0.671  | 0.005          | 0.872  | 0.021       | 0.182  | 0.023          | 0.209  | 0      | 0   |
|                                                |             |        |              |        |             |        |              |        |        |     | Project Pref.             | -           | -      | -              | -      | -           | -      | -              | -      |        |     |
| Economic Activity                              | 0.096       | 0.041  | 0.086        | 0.063  | 0.041       | 0.000  | 0.043        | 0.034  | +1     | +1  | Perceptions               | 0.068       | 0.000  | 0.080          | 0.001  | 0.112       | 0.000  | 0.118          | 0.000  | 0      | 0   |
|                                                |             |        |              |        |             |        |              |        |        |     | Stocks & Flows            | 0.017       | 0.093  | 0.016          | 0.204  | 0.020       | 0.024  | 0.021          | 0.048  | +1!    | 0   |
|                                                |             |        |              |        |             |        |              |        |        |     | Production & Marketing    | 0.236       | 0.114  | 0.202          | 0.174  | 0.029       | 0.007  | 0.026          | 0.669  | 0      | +3! |
|                                                |             |        |              |        |             |        |              |        |        |     | Migration                 | 0.060       | 0.035  | 0.061          | 0.116  | 0.075       | 0.007  | 0.090          | 0.009  | +2!    | 0   |
| Local Gov'n                                    | 0.019       | 0.018  | 0.024        | 0.014  | 0.076       | 0.000  | 0.075        | 0.000  | 0      | 0   | Structure                 | 0.128       | 0.000  | 0.135          | 0.000  | 0.204       | 0.000  | 0.226          | 0.000  | 0      | 0   |
|                                                |             |        |              |        |             |        |              |        |        |     | Function                  | 0.035       | 0.003  | 0.038          | 0.014  | 0.083       | 0.000  | 0.074          | 0.000  | +1     | 0   |
|                                                |             |        |              |        |             |        |              |        |        |     | Quality & Participation   | -0.022      | 0.059  | -0.016         | 0.245  | 0.034       | 0.001  | 0.033          | 0.004  | +1!    | 0   |
| Political Attitudes & State-Building           | 0.041       | 0.000  | 0.038        | 0.001  | 0.048       | 0.000  | 0.049        | 0.000  | 0      | 0   | Democratic Values         | 0.033       | 0.001  | 0.033          | 0.004  | 0.025       | 0.000  | 0.023          | 0.004  | 0      | 0   |
|                                                |             |        |              |        |             |        |              |        |        |     | State Legitimacy          | 0.050       | 0.001  | 0.041          | 0.050  | 0.063       | 0.000  | 0.066          | 0.000  | +1     | 0   |
|                                                |             |        |              |        |             |        |              |        |        |     | Perceptions of Government | 0.040       | 0.007  | 0.038          | 0.051  | 0.063       | 0.000  | 0.063          | 0.000  | +2     | 0   |
|                                                |             |        |              |        |             |        |              |        |        |     | Conflict                  | 0.043       | 0.030  | 0.042          | 0.126  | 0.033       | 0.052  | 0.041          | 0.091  | +2!    | 0   |
| Social Norms                                   | 0.031       | 0.000  | 0.029        | 0.000  | 0.026       | 0.000  | 0.027        | 0.000  | 0      | 0   | Social Cohesion           | 0.014       | 0.280  | 0.007          | 0.695  | -0.007      | 0.641  | -0.005         | 0.778  | 0      | 0   |
|                                                |             |        |              |        |             |        |              |        |        |     | Basic Skills              | -0.005      | 0.732  | -0.001         | 0.966  | 0.047       | 0.001  | 0.057          | 0.003  | 0      | 0   |
|                                                |             |        |              |        |             |        |              |        |        |     | Happiness                 | 0.036       | 0.030  | 0.035          | 0.113  | 0.022       | 0.195  | 0.022          | 0.284  | +2!    | 0   |
|                                                |             |        |              |        |             |        |              |        |        |     | Gender Attitudes          | 0.036       | 0.000  | 0.037          | 0.000  | 0.013       | 0.005  | 0.016          | 0.010  | 0      | +1  |
|                                                |             |        |              |        |             |        |              |        |        |     | Gender Outcomes           | 0.039       | 0.001  | 0.034          | 0.012  | 0.047       | 0.000  | 0.046          | 0.000  | +1     | 0   |

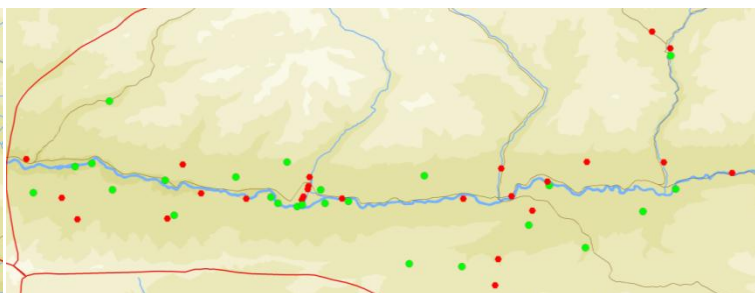
## Appendix VI – Maps of Treatment Assignments

Villages assigned to the treatment group are denoted with a green circle, with control villages denoted with a red hexagon.

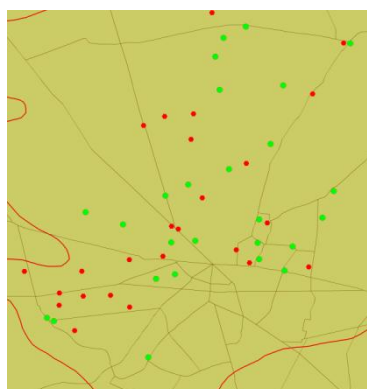
Adraskan



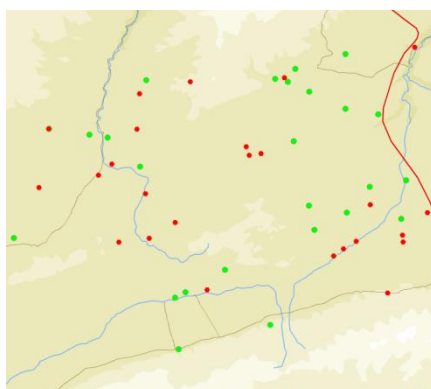
Chisht-e Sharif



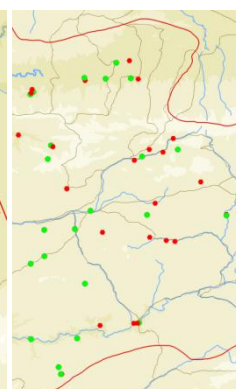
Balkh



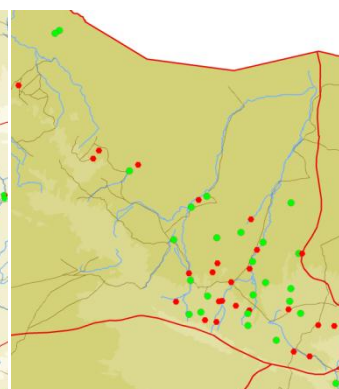
Daulina



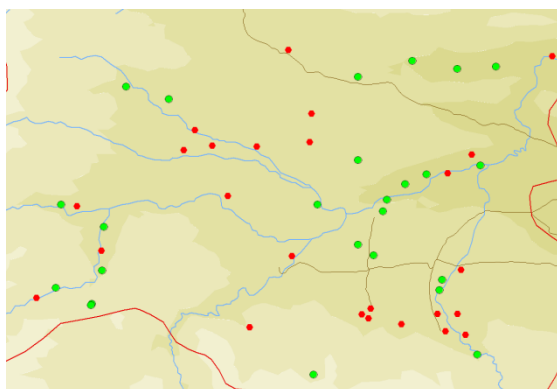
Fersi



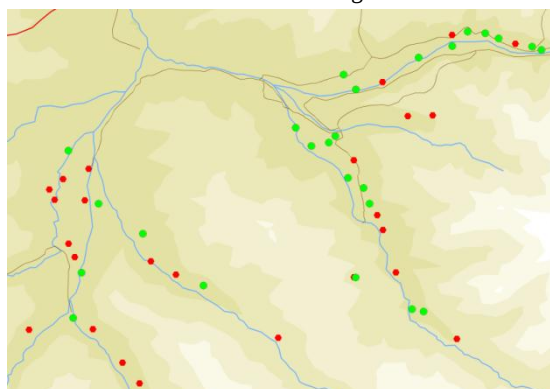
Gulran



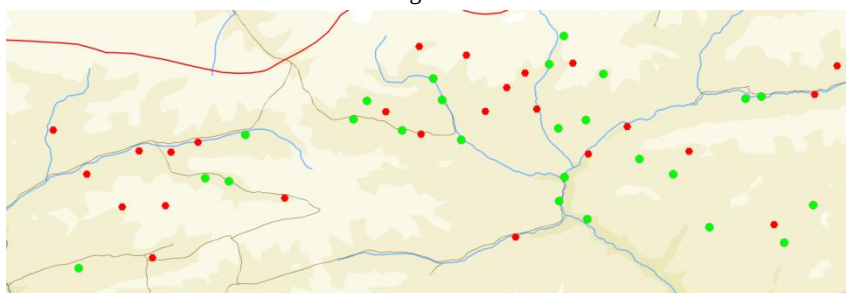
Hisarak



Khost Wa Firing



Sang Takht



Sherzad

