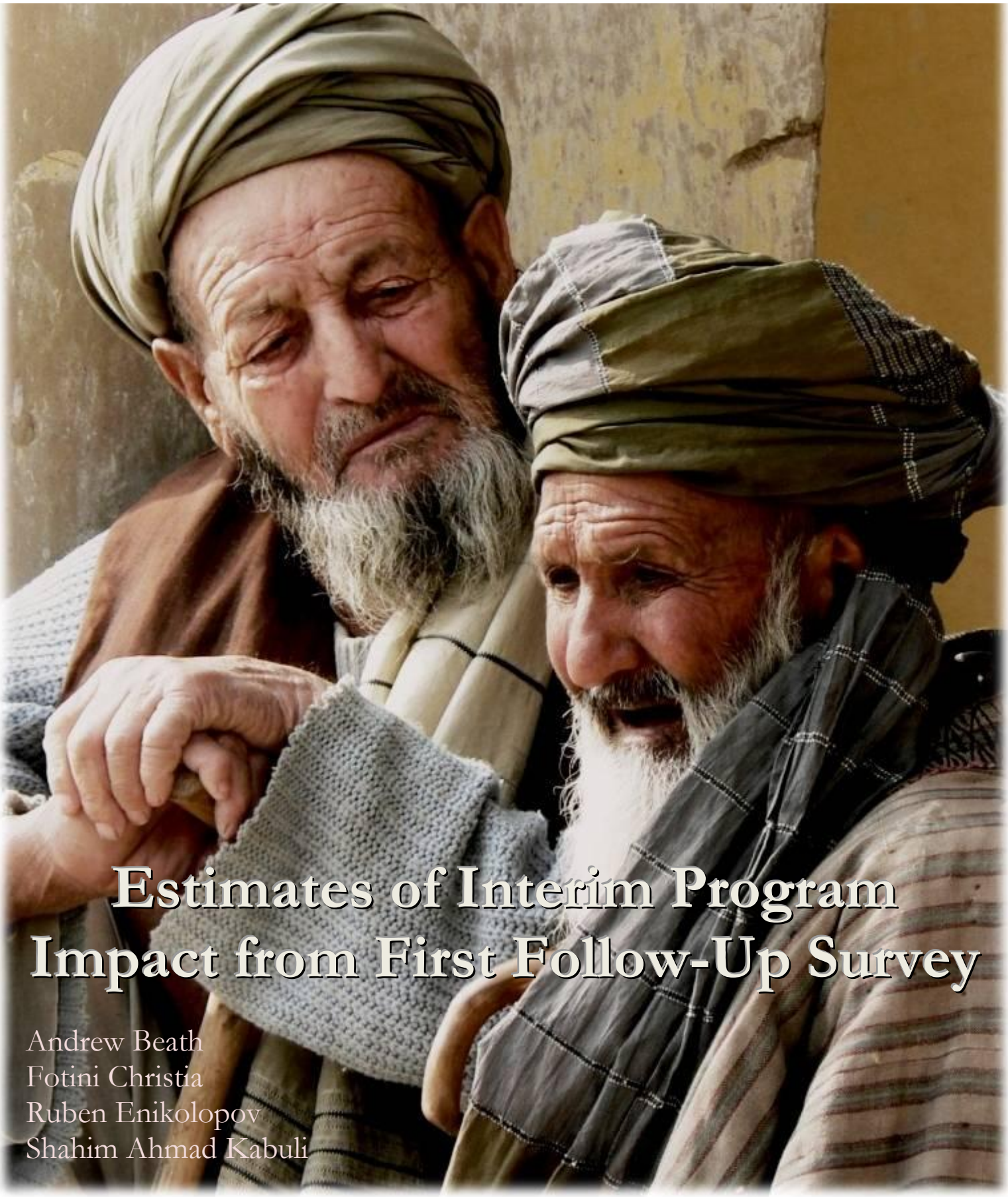
Randomized Impact Evaluation of Phase-II of Afghanistan's National Solidarity Programme (NSP)



Estimates of Interim Program Impact from First Follow-Up Survey

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Acknowledgements

This report was prepared by Andrew Beath, Fotini Christia, Ruben Enikolopov, and Shahim Kabuli. The authors were assisted by Sakhi Frozish and Chad Hazlett. Sippi Moghaddam-Azarbaijani also provided invaluable guidance in the design of survey instruments for the first follow-up survey. Amanullah Assil, Hamidullah Gharibzada, Maiwand Siddiqi, Tariq Wardak, and the staff of the Vulnerability Analysis Unit oversaw, with utmost professionalism, the administration of the baseline and first follow-up surveys. Teams of enumerators and supervisors, contracted to the Vulnerability Analysis Unit, undertook data collection for the baseline and first follow-up surveys and performed superbly under extremely challenging conditions.

The authors gratefully acknowledge the generous cooperation and assistance provided to the evaluation team by Tariq Ismati, Abdul Rahman Ayubi, and Nasrullah Ahmadzai of the National Solidarity Programme; H.E. Jarullah Mansoori, Minister or Rural Rehabilitation and Development; Ehsan Zia, Former Minister of Rural Rehabilitation and Development; Wais Barmak, Deputy Minister of Rural Rehabilitation and Development; staff of AfghanAid, C.H.A., InterCooperation, IRC, NPO/RRRAA, Oxfam UK, and People-in-Need; Susanne Holste, Qazi Azmat Isa, Norman Piccioni, Mio Takada, and Zishan Karim of the South Asia Sustainable Development Agriculture unit of the World Bank; and staff of the Afghanistan Country Office of the World Bank.

Financial and logistical support for the study has been provided by the Food and Agriculture Organization (FAO) of the United Nations, Trust Fund for Environmental and Socially Sustainable Development (TFESSD) of the World Bank, and the Development Impact Evaluation (DIME) initiative of the World Bank. The Ministry of Rural Rehabilitation and Development, through the monitoring and evaluation budget of the National Solidarity Programme, provided financial support to the Vulnerability Analysis Unit for the administration of the baseline and first follow-up surveys.

The authors would also like to extend their thanks to Luis Andres, Jeannie Annan, Xavier Bardou, Robert Bates, Dan Biller, Chris Blattman, Philippe Dongier, Celine Ferre, Rachel Glennerster, Justin Grimmer, Macartan Humphreys, Dean Jolliffe, Ghazala Mansuri, Lizanne McBride, Elliot Mghenyi, John Nagl, Jodi Nelson, Ben Olken, Rohini Pande, Andrew Pinney, Helge Rieper, James Robinson, Jacob Shapiro, Rory Stewart, Sergio Urzua, Tara Vishwanath, Eric Werker, Susan Wong, and Rob Wrobel for valuable comments, suggestions, and support.

EXECUTIVE SUMMARY

Introduction

The National Solidarity Programme (NSP) is the largest development program in Afghanistan and a flagship program of the Afghan government. Since its inauguration in 2003, NSP has established 22,500 CDCs across 361 districts in all of Afghanistan's 34 provinces and has financed over 50,000 development projects. NSP is structured around two major village-level interventions: (1) the creation of a gender-balanced Community Development Council (CDC) through a secret-ballot, universal suffrage election; and (2) the disbursement of grants, up to a village maximum of $60,000, to support the implementation of projects selected, designed, and managed by the CDC in consultation with the village community.[1] NSP thus seeks to both improve the access of rural villagers to critical services and to create a structure for village governance centered on democratic processes and the participation of women.

The impact evaluation of the NSP is a multiyear randomized control trial designed to assess the effects of the program across a broad range of economic, political, and social indicators. While a number of qualitative studies of NSP have been conducted to-date, the evaluation is the first large-sample quantitative assessment capable of providing rigorous, statistically unbiased estimates of the economic, institutional, and social impacts of the program. The evaluation is structured into multiple stages in reflection of the multifaceted nature of NSP. The first stage of the evaluation, described in this report, is focused on estimating how the creation of CDCs and the selection of development projects affect political and social outcomes. Data for the first phase is drawn from surveys administered to over 15,000 individuals in 500 sample villages immediately before the introduction of NSP (baseline survey in summer 2007) and again two years later (first follow-up survey in summer-autumn 2009). The evaluation focuses only on villages mobilized by the second phase of NSP, which commenced in 2007.

The estimates presented below describe impacts of the program at a time when CDCs were operational, but prior to the completion of many projects funded by NSP. Accordingly, the estimates represent the intermediate impacts of the program and do not necessarily reflect those that will be observed once projects are completed. Second and third follow-up surveys, planned for spring 2011 and 2013–15 respectively, will provide data for the second stage of the evaluation, which will ascertain impacts once NSP-funded projects are operational and provide an assessment of the medium-run impacts of the program.

Methodology

The evaluation employs the methodology common to randomized controlled trials and seeks to compare outcomes of interest in 250 villages mobilized by NSP with 250 villages not yet participating in the program. These 500 villages span 10 districts in Balkh, Baghlan, Daykundi, Ghor, Herat, and Nangarhar provinces. In each of the 10 districts, 25 of the 50 villages included in the evaluation were selected at random to receive NSP, with the other 25 villages assigned to the control group. The randomization of NSP within the 500 sample villages facilitates a transparent and unbiased estimation of program impacts by ensuring that pre-NSP characteristics of NSP villages are, on average, identical to those in the non-NSP control villages. Any differences in outcomes that

[1] Projects usually seek to construct or improve critical infrastructure, such as communal drinking water facilities, irrigation canals, local roads and bridges, and electrical generators, or offer vocational training or literacy courses to villagers

arise between the two groups of villages are thus attributable to NSP and describe the impacts of the program.

Summary of Findings

The study examines the impact of NSP on village governance; political attitudes and social cohesion; access to infrastructure, services, and utilities; and economic activity. Projects funded by NSP ordinarily take 18–24 months to complete following the initial stages of mobilization, which requires approximately 6 months. Estimates obtained at this stage in the study represent impacts of the program following CDC elections and the selection and implementation of projects, but prior to the completion of many projects. Accordingly, the first stage of the evaluation focuses on assessing the impact of the program on village governance and political attitudes and social cohesion, with weaker effects expected on access to services and economic activity. Effects over the latter two sets of indicators will be assessed in the second stage of the evaluation, which will be conducted following the completion of projects funded by NSP in the treatment villages.

The first stage of the evaluation finds that, at the current stage of program implementation, NSP is increasing villagers' access to services, altering the structure of village governance, and changing political and social attitudes. Major findings include:

- NSP induces changes in village governance by creating functional village councils and transferring some authority from tribal elders to these councils. The program also improves villagers' perceptions of a wide range of government figures, but does not change the chance of a village suffering a violent attack or result in appreciable changes in levels of interpersonal trust among villagers.
- NSP results in improvements in villagers' access to services and perceptions of well-being. At the current stage of project implementation, there is no evidence to indicate that the program affects objective measures of economic welfare, such as levels of household income or consumption.
- NSP increases the engagement of women across a number of dimensions of community life, while also increasing respect for senior women in the village and making men more open to female participation in local governance. NSP also increases the availability of support groups for women and reduces extreme unhappiness among women.

The sections below describe, in more detail, the impacts of NSP, with Table 1summarizing evidence on each of the categories of outcome indicators examined by the study.

Village Governance

NSP alters the structure of village governance by increasing the number of villages with functioning village councils and induces a marginal transfer of authority over functions of local governance from tribal elders to these councils. However, the program does not appear to affect activities undertaken by, or the authority held, by customary village leaders, such as headmen or members of the clergy. The democratic councils instituted by NSP appear to coexist with, rather than displace, traditional institutions. NSP stimulates participation in local governance by increasing both the frequency of and attendance at meetings of the village assembly, but does not affect male villagers' perceptions of the quality of local governance or the performance of the village leadership.

NSP significantly increases the participation of women in local governance and the responsiveness of village institutions to women's needs. The most direct effect is to establish clear avenues, which

had not existed previously, through which women may participate in local governance. In addition, NSP increases the extent to which women are cognizant of the village leadership and local governance services and appreciably increases attendance by women of meetings of a village assembly. The program also induces a substantial increase in the provision of services for women by village authorities and, perhaps as a result, makes women more likely to hold a positive image of local leaders and to believe that such leaders are responsive to the needs of women.

Political Attitudes and Social Cohesion

NSP results in an improvement in male villagers' perceptions of government and nongovernment officials and increases connections between villages and government and nongovernment institutions, but does not seem to make villagers more accepting of government taxation or government jurisdiction over local crimes, or more knowledgeable about local parliamentary representatives. However, the program does increase acceptance of elections as a means to select village headmen and of involving women in the process.

Male, but not female, villagers are more supportive of female involvement in local governance because of NSP, although it has no effect on stated opinions of villagers on female employment, education, or medical treatment. The program produces a sharp increase in the ability of male and female villagers to identify well-respected women in the village and improves access to support groups for village women. It also increases inter-village connections among women, although it does not affect the pattern of intra-village socialization.

There is weak or no evidence that NSP affects levels of trust between villagers,[2] the prevalence of village disputes or tribal feuds, or the probability of a village suffering an attack, but the program appears to stem out-migration of households from villages. Finally, while there is no evidence that NSP makes male villagers happier overall, the program does appear to reduce the prevalence of unhappiness among village women.

Access to Utilities, Infrastructure, and Services

The impact of NSP on services, infrastructure, and utilities at this stage of program implementation is mixed, although the conclusiveness of current analysis is limited by the incomplete nature of many projects in the sample. A more comprehensive analysis of the impact of NSP on access to services and economic activity is to be undertaken by the second stage of the evaluation.

Using data from villages with completed projects, the study identifies a strong positive impact of drinking water projects on the use of protected outlets and the availability of safe drinking water. Evidence available on the few completed electricity projects also suggests strong impacts of such projects on connectivity and usage.

Few impacts of infrastructure projects are apparent on the mobility of villagers or irrigation outcomes, although this could be due to the limited amount of time that has elapsed between the completion of projects and the first follow-up survey. Data from the second follow-up survey will be required to conclusively assess the impact of these projects.

With respect to access to medical care and schooling, the program's impacts, at this stage, appear limited to female villagers. Women's access to professional medical services appears modestly

[2] Trust is measured by asking respondents whether they would be comfortable allowing another villager to collect money for them, if they were unable to collect it personally; whether they have, in the past, asked another villager to collect money; and whether they believe villagers generally help each other.

improved by NSP, but there is no evidence of an improvement for villagers generally. Some evidence exists that NSP increases girls' school attendance rates, but there is no evidence that NSP increases boys' school attendance.

Economic Activity

As with access to utilities, infrastructure, and services, the capacity of the first stage of the study to identify the economic impacts of NSP is limited by the incomplete state of projects in the sample and will be addressed more conclusively by the second and third stages of the evaluation.

At the current stage of program implementation, the study finds that NSP is already increasing the proportion of villagers who report that their economic situation has improved and makes villagers more optimistic about future economic changes. Objective measures of economic activity over the past year appear to be, as yet, unaffected by NSP. Specifically, no difference between treatment and control villages is observed in annual income or consumption or the regularity of income over the past year, in the sufficiency of food sources, stocks of household assets, or on borrowing behavior.

The program, in its current state of implementation, does not affect the size of land area under cultivation or harvest sizes. Although there is weak evidence that NSP increases the probability of farmers selling produce, there is no evidence of a similar impact on sales of livestock, animal products, or handicrafts. Revenues accruing from sales of produce, livestock, or animal products are unaffected by the program at this stage, although NSP appears to induce a slight increase in revenues from handicraft sales.

NSP results in increased involvement by women in income-generating activities, but there is no evidence of impacts on asset ownership by women, on the control of women over earned income or owned assets, or on the involvement of women in household decisions.

Conclusion

Results from the first stage of the NSP impact evaluation indicate that the program is successful in improving villagers' perceptions of their economic situation and of government representatives and officials and some nongovernmental actors. NSP creates new village institutions for women, increases men's openness to women participating in local governance, and improves the perceived responsiveness of local leaders to women's needs. There is evidence that, in villages with completed projects, NSP produces tangible improvements in access to drinking water and electricity. However, at this stage of program implementation, the program does not appear to have any impact on the access of villagers to infrastructure or result in any changes in economic activity, levels of community trust, or the likelihood of a village suffering a dispute or an attack. The impacts of NSP are summarized in Table 1 below; the strength of evidence in support of hypotheses that NSP affects the respective category is summarized in the far right hand column.

Further information and materials pertaining to the study can be obtained from the evaluation website at <http://www.nsp-ie.org>.

Table 1. Summary of Impacts of NSP at First Follow-Up Survey

Group	Section	Category	Evidence of Impact
Village Governance	Structure	Existence of Customary Leaders & Councils	Strong
		Identification of Village Leaders by Villagers	Weak
		Affiliation of Identified Village Leaders	Strong
		Continuity of Identified Village Leaders	Weak
	Functions	Volume of Activities by Leaders & Councils	Strong
		Responsibility for Dispute Mediation	Strong
		Responsibility for Emergency Assistance	Strong
		Responsibility for Certification of Documents	Strong
		Responsibility for Guidance of Moral Conduct	Strong
	Reception	Attendance of Villagers at Assembly Meetings	Strong
		Activism & Recourse for Unjust Decisions	Strong
		Perceived Quality of Local Governance	Moderate
Political Attitudes and Social Cohesion	Perceptions of Government and Elections	Village Visits by Gov't, NGO, & Military Officials	Strong
		Perceptions of Gov't, NGO, & Military Officials	Moderate
		Perceptions of State Authority among Villagers	None
		Attitudes toward Elections	Moderate
	Attitudes toward Female Participation in Governance and Community Life	Participation in Governance and Leader Selection	Weak
		Employment & Schooling and Respect for Women	Moderate
		Socialization and Mobility of Village Women	Strong
	Social Cohesion	Interpersonal Trust among Villagers	Weak
		Prevalence and Resolution of Disputes and Feuds	None
		Prevalence of Attacks and Perceptions of Security	None
		Out-Migration from Village	Weak
		Happiness of Villagers with their Lives	None
Access to Utilities, Infrastructure, and Services	Utilities	Drinking Water	Moderate
		Electricity	None
	Infrastructure for Livelihoods	Transportation and Mobility	None
		Irrigation	None
	Social Services	Access to Medical Care	Weak
		School Attendance	Weak
Economic Activity	Perceptions of Economic Change		Strong
	Household Stocks and Flows	Income	None
		Consumption	None
		Household Assets	None
		Debt and Borrowing	None
	Production	Agricultural Production	None
		Non-Agricultural Production	None
	Engagement of Women in Economic Activity	Economic Activity	Weak
		Household Decision Making	None

RANDOMIZED IMPACT EVALUATION OF PHASE-II OF AFGHANISTAN'S NATIONAL SOLIDARITY PROGRAMME (NSP)

ESTIMATES OF INTERIM PROGRAM IMPACT FROM FIRST FOLLOW-UP SURVEY[§]

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July 8, 2010

I. Introduction

The impact evaluation of Afghanistan's National Solidarity Programme (NSP) is a multiyear randomized controlled trial designed to quantify impacts of the program on local governance; political attitudes of villagers; social cohesion; access of villagers to utilities, services, and infrastructure; and village economic activity. The evaluation compares changes in outcomes throughout the life-cycle of program implementation between 250 treatment villages mobilized by NSP and 250 control villages not yet participating in NSP. This report presents estimates of interim program impacts using survey data collected before the introduction of NSP and after partial completion of NSP projects. It finds that NSP results in changes in village governance and political attitudes and induces improvements in access to services, but generally does not affect economic activity or social cohesion.

The paper is divided into six sections. Section II provides background information on NSP and the randomized evaluation. Section III describes the hypotheses of relevance to the study. Section IV provides background information on the research design and data sources used to evaluate the hypotheses. Section V presents the interim results of the evaluation, detailing the provisional impact of NSP on access to services, economic activity, local governance outcomes, norms and opinion, and social cohesion. Section VI presents conclusions. Appendices for the report are available online at <http://www.nsp-ie.org>.

II. Overview of NSP and Randomized Evaluation

This section is divided into three subsections: II.1 presents a general description of the National Solidarity Programme (NSP); II.2 reviews related literature on community-driven development programs and NSP; and II.3 provides background information on the randomized evaluation of NSP.

II.1. National Solidarity Programme (NSP)

NSP was conceived soon after the institution of the Transitional Islamic State of Afghanistan as a means to build support for the new regime and to deliver critical services to the country's largely

[§] Please see <http://www.nsp-ie.org> for further information and materials pertaining to the study

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rural population. Since its inauguration in 2003, NSP has been implemented in over 29,000 villages across 361 of Afghanistan's 398 districts at a cost of nearly $1 billion,[3] making it the largest single development program in Afghanistan. The program is executed by the Ministry of Rural Rehabilitation and Development (MRRD). It is funded by the World Bank and a consortium of bilateral donors, and implemented by 28 NGOs, known as facilitating partners (FPs).

The program is structured around two major interventions at the village level. With a view to building representative institutions for village governance, NSP mandates the creation of a community development council (CDC) in each village. CDCs are created through a secret-ballot, universal suffrage election and are composed of an equal number of men and women. The second principal intervention of NSP is to disburse "block grants," valued at $200 per household up to a village maximum of $60,000, to support the implementation of projects designed and selected by the CDC in consultation with the village community. Projects are ordinarily focused on either infrastructure (such as drinking water facilities, irrigation canals, roads and bridges, electrical generators, or school construction), or human capital development (such as training and literacy courses).[4]

Implementation of NSP in a single village ordinarily takes longer than three years, owing to the multifaceted interventions and multiple projects delivered by the program. The process of explaining the process of NSP to villages and organizing CDC elections usually takes about six months. Following the creation of the CDC, an average of twelve months elapses before project implementation starts, as CDCs and the village community select and design projects, submit proposals to the NSP office, receive funds, and, if necessary, procure contractors for project construction. Once construction commences, it takes nine months for projects to become operational, although the time varies significantly based on the type of project. The number of projects implemented per village can vary. Multiple projects may be implemented simultaneously or sequentially, meaning that there is substantial variation between villages in the time it takes to complete implementation of the program.

II.2. Research on Community-Driven Development and NSP

NSP is representative of a class of development programs known as community-driven development (CDD). CDD programs have become very popular among aid agencies as a mechanism to deliver development services in rural areas, in part owing to their emphasis on involving village communities throughout the project cycle, often through the creation of democratically elected village development councils (Dongier et al. 2002; Mansuri and Rao 2004). Proponents of CDD contend that the delivery mechanism helps ensure that delivered projects meet the actual needs of rural communities (Kingsley 1996; Manor 1999), leads to more engaged stakeholders, and improves the quality of local governance (Fung and Wright 2003; Nordholt 2004).

To date, most research conducted on CDD programs consists of either observational or quasi-experimental studies that, by design, do not overcome statistical biases sufficiently to rigorously

[3] Villages must have more than 25 households to be eligible for participation in NSP and, accordingly, smaller villages participate in NSP through forming joint CDCs with larger villages. As a result, the number of villages in which NSP has been implemented (29,000) exceeds the number of CDCs created (22,5000)

[4] Eligible projects proposed by CDCs 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

identify program impacts (Banerjee and Duflo 2009). In recent years, there has been a move toward conducting randomized controlled trials of CDD interventions, which has involved close cooperation between researchers and organizations implementing CDD programs. Currently, the only completed study (Fearon et al. 2008) was conducted in cooperation with the International Rescue Committee (IRC) in Liberia. The study assesses the impact of CDD-related interventions through a combination of survey data and behavioral games and finds positive effects on governance outcomes and social cohesion, but limited effects on economic well-being. In addition to the NSP evaluation, there are two other ongoing randomized controlled trials of CDD interventions, one in the eastern Democratic Republic of the Congo and the other in Sierra Leone. The Congo study is using both survey data and behavioral games to evaluate impacts of a local CDD program on conflict outcomes, while also testing whether the involvement of women enhances program outcomes (Humphreys 2008). The Sierra Leone study is using survey data to address the impact of a CDD program on the involvement of villagers in community decision making (Miguel, Glennerster, and Casey 2006).

Although the study described in this report is the first randomized controlled trial of NSP's interventions, there is already a rich and diverse body of research describing the implementation and assessing the effects of the program (Affolter et al. 2006; Barakat 2006; Boesen 2004; Brick 2008; Higashi 2008; Howell and Lind 2008; Kakar 2005; Nixon 2008; Noelle-Karimi 2006; Torabi 2007). Existing works have looked at the issues of elite capture; the legitimacy of the program and its activities; effects on community attitudes and participation in local governance; and NSP's overall impact. However, as most of the existing studies on NSP base their analysis on one-time semi-structured qualitative interviews with villagers, CDC members, and other institutional actors in a relatively small number of villages, they are limited in their capacity to identify the impacts of the program. In addition, these studies do not take into account how villages mobilized under NSP are selected, which may lead to selection bias in the results.

This study aims to contribute to the existing body of knowledge on CDD and NSP by conducting a rigorous, objective test of the impacts of NSP across a range of indicators spanning the structure, function, and reception of local governance; access of villagers to utilities, infrastructure, and services; levels of consumption, production, and assets; social cohesion; and political attitudes.

II.3. Randomized Evaluation of NSP

Early 2007 saw the end of the first phase of NSP, at which point 17,200 villages in 279 of Afghanistan's 398 districts had participated in the program. Phase II of NSP (NSP-II) proceeded with an interim goal of mobilizing 4,300 new villages over the course of two years. Two-thousand villages were located in ongoing districts containing villages previously mobilized by NSP; and 2,300 are located in 74 "new" districts, which did not contain any villages that have received NSP.

In these 74 new districts, financial constraints limited the number of villages that could initially participate in NSP-II to 40. As the number of villages per district often exceeds 40, in many districts the program had to be rationed through some mechanism.[5] This imperative for rationing, as well as the lack of objective village-level data that may be used to target the program, facilitated an opportunity to randomly allocate NSP within a selection of 10 districts in order to enable a longitudinal randomized evaluation of the impacts of the program.

[5] According to a list of villages provided by the Central Statistics Organization (CSO) of Afghanistan, the mean number of villages in the 74 "new" NSP districts is 80

III. Hypotheses

The multifaceted nature of NSP and path-breaking nature of the program's interventions in rural Afghanistan could theoretically affect a wide range of outcomes across economic, political, and social dimensions. The creation of a gender-balanced CDC through a secret-ballot election has the potential to affect the structure of village governance, reallocate functions ascribed to different governance entities, and change how villagers perceive and interact with local governance entities. The program's connection with the central government and its emphasis on democratic processes, community involvement, and the inclusion of women may change social and political attitudes and levels of social cohesion. The provision of development projects should, if successful, increase the access of villagers to critical utilities, infrastructure, and services, and potentially stimulate economic activity. To motivate the selection of indicators for the study, the subsections below discuss in detail these hypothesized impacts of NSP across the four categories of village governance (III.1); political attitudes and social cohesion (III.2); access to utilities, infrastructure, and services (III.3); and economic activity (III.4).

III.1. Village Governance

Village governance in Afghanistan is traditionally structured around the institutions of a hereditary headman, a village *mullah* or other member of the clergy, and an informal council of tribal elders commonly known as a *shura* or *jirga*. In areas particularly affected by the civil and international conflicts that have spanned the past three decades, paramilitary commanders can supplement or dominate the tripartite structure. Scholars disagree about the representative efficiency of the traditional structure of village governance, but there is general agreement that it emphasizes consensus and customary law over democratic principles and precludes the systematic involvement of women in village decision making.

The introduction of a gender-balanced CDC, endowed with an unprecedented volume of financial resources and elected through a universal suffrage, secret-ballot election, poses both a challenge and opportunity for pre-existing village leaders, who could find their authority either displaced or aggrandized by the intervention. Although some leaders may be affected more than others, generally it is expected that customary leaders will relinquish some of their authority over village affairs to the CDC. As this involves the reallocation of authority from customary entities to a representative body, this may also improve some villagers' perceptions of the quality of village governance and the efficiency of local governance structures in meeting the needs of villagers.

The creation of the CDC is also expected to increase participation by villagers in local governance and the involvement of women in village governance structures. The latter effect should induce an additional improvement in the extent to which female villagers perceive that village governance structures are able to meet the needs of women and in their perceptions of the quality of village governance.

III.2. Political Attitudes and Social Cohesion

The resources mobilized by NSP for the construction of development projects are, for the vast majority of villages in Afghanistan, unprecedented in the history of the country. The creation of a gender-balanced local governance assembly through a secret-ballot election is, for many parts of the country, equally unprecedented. Whether villagers react to these twin interventions with appreciation or disapproval, if NSP is identified as a government program, exposure to the program should affect

how villagers perceive central government. As anecdotal evidence indicates that NSP is, in general, well-received by villagers and that they believe the program to be owned by the government, it is expected that NSP improves perceptions of government figures and of the legitimacy of its authority.

NSP's strong emphasis on selecting council members through secret-ballot elections and in involving women in council deliberations and project selection are processes that generally run counter to norms and practices of local governance. Although effects will likely vary based on pre-existing social and institutional conditions, exposure to these norms is generally expected to increase support for democratic methods of leader selection and for involving women in village decision making and other aspects of community life. If NSP is successful in changing norms related to women's role in community life, it is likely that the openness of men toward female participation in economic activity would also shift. Such a change in opinion could also result in an increase in the extent to which women engage in income-generating activities and in household decision making.

As is common to CDD programs, NSP encourages mechanisms for project selection and management that are inclusive of the village community and which result in increased levels of engagement of community members. Studies of CDD interventions in other contexts, described in subsection II.2, find that CDD interventions are generally successful in building trust among villagers. It is hypothesized that NSP will have similar impacts. Such an improvement is expected to be observable not just in explicit measures of interpersonal trust and community solidarity, but also in the prevalence and resolution rate of intra-village disputes. Such an improvement in social cohesion, together with an increased level of local "ownership" of development projects, may also lessen the chances of villages suffering attacks by anti-government elements, but also make the village more susceptible to attack if receipt of the program signals an acceptance by the village of government legitimacy.

III.3. Access to Utilities, Infrastructure, and Services

As noted above, projects funded by NSP perform a number of functions, such as constructing or rehabilitating protected sources for drinking water, installing electrical generation infrastructure, resurfacing or otherwise improving roads and bridges surrounding villages, and constructing or rehabilitating sources of irrigation for agricultural fields. When fully completed, such projects can be expected to have direct impacts on the access of villagers to utilities, infrastructure, and services. For example, the completion of new wells should result in improvements in the availability of safe drinking water; the installation of electrical generators should increase connectivity of households; the resurfacing of roads should reduce the chance of villages having their transport links being disrupted by winter conditions, and the rehabilitation of irrigation canals should improve the availability of water for irrigation.

In addition to these four sets of indicators over which NSP projects are expected to have direct impacts, the access of villagers to health and education is expected to be indirectly impacted by NSP through the improvement of transportation infrastructure and the increased availability of safe drinking water. In the case of the access of women and girls to health and education, changes may also be indirectly induced by NSP through shifts in norms concerning the involvement of women in community life. As NSP generally does not fund the construction of schools or clinics or the provision of health services, no direct impacts of the program are anticipated across these two dimensions.

III.4. Economic Activity

If projects funded by NSP are successful in delivering the direct impacts outlined in the section above, there should be follow-on effects on various dimensions of economic activity and production. Increases in the availability of irrigation for agricultural fields should, for instance, increase land use and, by extension, agricultural yields. Improvements in transportation infrastructure, if successful in reducing the cost of transporting goods to market, should result in increased commercialization of both agricultural and nonagricultural sectors and increase sales revenues accruing to households.

In addition to these impacts on production, the construction of projects can infuse resources into villages, mainly through the payment of wages to laborers, but also through the procurement of raw materials. Together, these effects could potentially increase levels of household income and consumption in both the short- and long run and lessen the need for households to borrow in order to cover shortfalls in consumption or critical food needs. Such effects would also translate into an improved perception among villagers of their household's economic situation and of their optimism about future economic changes, which may have an additional flow-on effect in reducing out-migration of villagers.

III.5. Summary of Hypotheses

The study seeks to estimate the impacts of NSP across four dimensions of indicators: (1) village governance; (2) access to utilities, infrastructure, and services; (3) economic activity; and (4) political attitudes and social cohesion. The anticipated impacts of NSP on key outcomes in each of these four dimensions are summarized in the hypotheses listed below.

Village Governance

- NSP will increase the existence of village councils, but will not affect the presence of customary village leaders.
- NSP will induce a shift in authority over various dimensions of village governance from customary authorities to village councils.
- NSP will increase participation of the villagers in local governance and improve villagers' perceptions of the quality of village governance and state governance more generally.

Political Attitudes and Social Cohesion

- NSP will improve acceptance by villagers of state authority and elections as a means of selecting local and regional leaders and improve attitudes toward the government.
- NSP will increase acceptance of the participation of women in local governance and community life and increase socialization among women.
- NSP will increase social cohesion within villages.

Access to Services

Conditional on the type of infrastructural projects chosen by the village:

- NSP will increase the access of villagers to utilities, such as water and electricity.
- NSP will increase the access of villagers to infrastructure for livelihoods, such as transportation services and irrigation water.
- NSP will increase the access of villagers to social services, such as healthcare and schooling.

Economic Activity

- NSP will improve villagers perceptions of the economic situation of the household and village.
- NSP will lead to higher levels of income, consumption, and assets, and reduce the need for villagers to borrow to finance critical needs.
- NSP is expected to increase levels of agricultural and livestock output and connect producers with markets.
- NSP will increase the engagement of women in economic activity and household decision making.

As discussed further in Section IV.3, the first follow-up survey was undertaken prior to the completion of many projects funded by the program and is designed to focus mainly on how the creation of political attitudes, social norms, and governance structures respond to the creation of CDCs. While it is feasible that the first follow-up survey may capture changes in levels of household income and consumption arising from employment and procurement directly associated with project implementation, changes in access to services and economic benefits flowing from the completion of NSP-funded infrastructure projects are, for the most part, not expected to be realized at the time of the survey. Although the results presented in this report address all of the hypotheses presented above, the results presented pertaining to access to services and economic activity are thus incomplete. The respective hypotheses cannot be completely addressed until the completion of the second follow-up survey in spring 2011.

IV. Research Design

The study seeks to evaluate the hypotheses described in Section III by comparing outcomes between 250 villages randomly assigned to the treatment group that are to receive NSP, and 250 villages randomly assigned to the control group that are not to receive NSP until after the conclusion of the second stage of the evaluation. The following subsections detail the methodology of the study and the data used to evaluate the aforementioned hypotheses: IV.1 details the methods used to select the sample; IV.2 details the mechanism used to select sample units for treatment; IV.3 provides an overview of data sources used for the study; and IV.4 explains the procedures used for estimating impacts.

IV.1. Sample Selection

The selection of the sample for the study proceeded in two stages. First, 10 districts were purposefully selected from 398 districts in Afghanistan to be included in the study. Second, 50 villages were purposefully selected in each of the 10 sample districts. The methods for these selections are described below, followed by a short discussion of how the sample compares to the rest of Afghanistan.

Selection of Sample Districts and Villages

Three main considerations guided the selection of sample districts:

1. *"New" NSP Districts*. In order to facilitate an experimental design, sample districts were selected from the 74 where NSP had not commenced prior to March 31, 2007. In some of these "new" districts, random selection of villages for participation in NSP was feasible due to the need to ration the program across the more than 40 villages in the district. Outside of this set of new districts, however, randomization was infeasible as

districts were fully covered by NSP, in the process of being fully covered by NSP, or were not covered by the program.

2. *Security*. Reducing the security risk to enumerators and participants was of paramount concern when selecting the sample districts for the study. Security concerns eliminated 34 of the 74 new NSP districts from consideration for inclusion in the baseline survey.
3. *Minimum of 65 Villages*. Procedures devised by the evaluation team to minimize adverse political or humanitarian consequences of the evaluation 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 procedure limited eligibility for the study to districts with 65 villages or more, of which there were 23 new NSP districts.

Ten districts contracted to FPs prior to the commencement of the baseline survey satisfied these three criteria: Balkh district in Balkh province; Khost Wa Firing in Baghlan; Sang Takht in Daykundi; Daulina district in Ghor province; Adraskan, Chisht-e Sharif, Gulran, and Farsi in Herat; and Hisarak and Sherzad in Nangarhar. NGOs assigned to work in the ten sample districts provide a mix of small and large, international and local organizations that reflects the diversity of NGOs contracted to implement NSP. The locations of the ten sample districts are shown in Figure 1 below.

In each of the ten sample districts, the contracted FP was given responsibility for selecting the 50 sample villages to be included in the evaluation, with the understanding that the evaluation team would randomly select 25 of these villages for NSP mobilization.[6] Lists of villages were provided to the participating FPs,[7] which were allowed a number of weeks to make the selection. 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.[8]

[6] This approach was adopted to ensure that the procedures of the evaluation didn't impose unnecessary logistical costs or complications for participating FPs. It was also motivated by the assumption that allowing FPs to select the sample villages would minimize the probability of sample villages being ineligible for participation in NSP due to small size, or which, for security, political, or other reasons, would otherwise create problems if surveyed and/or mobilized by NSP.

[7] The evaluation team constrained the villages that could be selected for inclusion in the sample to those villages for which the evaluation team possessed GPS coordinates and demographic and infrastructure data

[8] This was done in order to meet political or humanitarian imperatives dictating the prioritization of particular villages for NSP without jeopardizing the integrity of the empirical strategy for inference. The only constraint that was imposed on the selection of these 15 "priority" villages was that none of them appear in the list of 50 "sample" villages. In order to prevent contamination of the control group, the evaluation team took all feasible steps to ensure that the 15 priority villages did not overlap with the 25 NSP sample villages and, where GPS coordinates were available, were located a significantly far distance away from them.

Figure 1. Ten Sample Districts

Representativeness of Sample

Despite the fact that the sample districts and villages were purposefully sampled, the evaluation did achieve a reasonably representative sample of rural Afghanistan in terms of many observable characteristics. With the exception of the south, the sample covers all major regions of Afghanistan, including the western, central highlands, northern, northeastern, and eastern regions. The ten districts also provide a representative sample of Afghanistan's ethno-linguistic diversity, with five predominantly Tajik districts, four predominantly Pashtun districts, and one predominantly Hazara district. The districts of Balkh and Gulran also contain significant numbers of Uzbek and Turkmen minorities, respectively.

At the household level, the sample also appears to be broadly representative of the population of rural Afghanistan. A comparison of key characteristics of household respondents for the first follow-up survey of the NSP impact evaluation and those of the 2007–08 National Risk and Vulnerability Assessment (NRVA), administered to a random stratified sample of the population of Afghanistan, reveals only small differences between the two samples. Households in the NSP evaluation sample are poorer, have worse access to medical services, and slightly better access to electricity, but the magnitude of the differences are rather small and the statistically significant differences between the samples are mainly driven by the large size of the NRVA sample. There is no significant difference in the age of respondents. Table 2 below reports sample means, standard errors (S.E.), sample sizes (Obs.) for the respective samples, as well as *t*-statistics for the difference in means.

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

Indicator	NRVA (Rural Households)			NSP 1st Follow-Up 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	1.381
Income from Primary Source (*Afghanis*)	60,950	468	16,065	58,618	1155	4,554	1.872
Household Engaged in Agriculture	0.661	0.004	16,143	0.723	0.007	4,625	-7.950
Access to Electricity	0.280	0.004	16,121	0.304	0.007	4,656	-3.065
Last Child Born is Alive	0.994	0.001	9,861	0.975	0.004	1,736	4.938
Last Birth Delivered at Home	0.871	0.004	9,817	0.892	0.007	1,744	-2.541
Last Birth Delivered in Hospital	0.065	0.003	9,817	0.036	0.004	1,744	5.625

IV.2. Assignment of Treatment

In order to ensure that impacts of NSP can be estimated without contamination by selection biases, the treatment assignment mechanism ensured that the 500 sample villages had an equal probability of selection for participation in NSP. The details and results of the randomization procedure are outlined below.

Procedure

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

1. *Clusters***.** To minimize potential for spillovers between treated and untreated units, villages located within 1 kilometer were grouped in village clusters. Of the 500 sample villages, 107 were assigned to 41 village clusters. The number of villages in each village cluster ranged from two to six.
2. *Matched Pairs***.** In each district, the 50 sample villages were paired into 25 groups of two using an optimal greedy matching algorithm, which matched villages to ensure similarity based on various background characteristics provided that the villages were not in the same village cluster.
3. *Assignment of Treatment***.** In each matched pair, a random number generator was employed to decide which of the two villages would receive NSP. In order to minimize the probability of spillovers biasing estimated impacts, clusters of villages were assigned the same status.
4. *Violations of Clustering Restrictions***.** In a few districts, the large number of clustered villages precluded the coassignment of all the villages in the same village cluster to the same treatment status. For cases in which assignment of treatment status without violation of the clustering restriction was not possible, the number of violations was minimized through a simulation approach.[9]

Results of Randomization

As expected, the randomization procedure was successful in ensuring statistical balance between treatment and control groups. Table 3 below presents means, normalized differences,[10] and t-

[9] The clustering restriction was violated in 17 village clusters (covering 44 villages).
[10] Per Imbens and Wooldridge (2009), normalized differences are differences divided by pooled standard errors

statistics for important variables using data from the baseline survey.[11] A comparison of means and normalized differences indicates that the treatment assignment mechanism produced very high levels of statistical balance between the treatment and control groups. Among the variables listed, the difference between the means of the two groups is always smaller than 6 percent of the standard deviation.

Table 3. Statistical Balance between Treatment and Control Groups

Variable	Mean Level in Control Group	Mean Level in Treatment Group	Normalized Difference	*t*-Statistics
Number of Households in Village	103.02	109.76	0.07	0.76
Number of People in Household	9.87	9.76	- 0.02	- 0.42
Age of Respondent	43.30	43.80	0.04	1.10
Respondent Speaks Dari as Mother Tongue	0.69	0.70	0.04	0.45
Respondent Received no Formal Education	0.71	0.71	0.01	0.18
Household Has Access to Electricity	0.13	0.15	0.04	0.59
Male Health Worker is Available to Treat Villagers	0.10	0.13	0.12	1.32
Female Health Worker is Available to Treat Villagers	0.08	0.10	0.10	1.07
Main Source of Drinking Water is Unprotected Spring	0.27	0.27	- 0.00	- 0.02
Dispute among Villagers Occurred in Past Year	0.37	0.36	- 0.03	- 0.36
No Problems are Experienced in Meeting Household Food Needs	0.45	0.45	0.02	0.38
Household Borrowed Money in Past Year	0.48	0.47	- 0.02	-0.36
Respondent Reports Attending Meeting of Village Council in Past Year	0.30	0.31	0.03	0.59
Expenditures on Weddings in Past Year (*Afghanis*)	11,676	10,380	- 0.03	- 0.73
Expenditures on Food in Past Month (*Afghanis*)	3,644	3,566	- 0.04	- 0.68
Respondent Believes that Women Should be Members of Council	0.41	0.43	0.05	0.92
Views of Women are not Considered in Resolving Disputes	0.51	0.48	- 0.06	- 1.64
Assets	0.00	-0.01	- 0.02	- 0.52
Natural Log of Income	8.67	8.63	- 0.07	- 1.15

IV.3. Data Sources

Data for the estimation of impacts associated with NSP is provided by a set of household and focus group surveys administered to men and women during multiple stages of survey activities. Prior to the commencement of program activities in the sample districts, a baseline survey was conducted in August and September 2007. This was followed by the first follow-up survey, described in detail in this report, which was administered between June and October 2009 following the election of CDCs and the start of project implementation. A second follow-up survey, planned for spring 2011, will be conducted following the completion of program activities in the 250 treatment villages, but before the commencement of the mobilization of the 250 control villages. The following sections provide overviews of the survey instruments, survey activities, and implementation progress at the time of the first follow-up survey.

[11] This exercise employs data from the male head-of-household baseline survey questionnaires administered to approximately 5,000 respondents across the 500 sample villages. The matching exercise described in steps 2 and 3 above did not draw on data from the baseline survey, but rather uses data collected a few years earlier conducted by the Central Statistics Organization(CSO) and geographic variables constructed by the authors.

Survey Instruments

The baseline and first follow-up surveys were structured around four survey instruments that ascertained key information from male and female villagers and male and female village leaders. These surveys are explained in greater detail below:

1. *Male Household Questionnaire* (MHH). During the baseline survey, the MHH instrument was administered to ten randomly selected male heads-of-household in each sample village.[12] For the first follow-up survey, enumerators were provided with a list of the ten baseline MHH interviewees and asked to administer the MHH questionnaire to this person or, if unavailable, to a male member of the same household.
2. *Male Focus Group Questionnaire* (MFG). The MFG questionnaire is 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 at the request of the enumerator. Enumerators administering the first follow-up survey were not asked to specifically request the participation of those persons who took part in the baseline MFG interview, although given the common method by which the focus groups were composed, overlap is expected across the two surveys.
3. *Female Focus Group Questionnaire* (FFG). The FFG questionnaire is 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 MFG, first follow-up survey enumerators were not asked to explicitly seek the participation of baseline focus group members.
4. *Female Household Questionnaire / Female Individual Questionnaire* (FHH / FI). During the baseline survey, women who participated in the FFG questionnaire were interviewed individually for the female individual (FI) questionnaire. For the first follow-up survey, the decision was made to change the FI questionnaire to a female household (FHH) questionnaire, to be administered to the wife (or another senior women) of the MHH participant in each household. This change in survey procedure was made to ensure that a random sample of female villagers were surveyed in addition to the senior women of the village.

Overview of Survey Activities

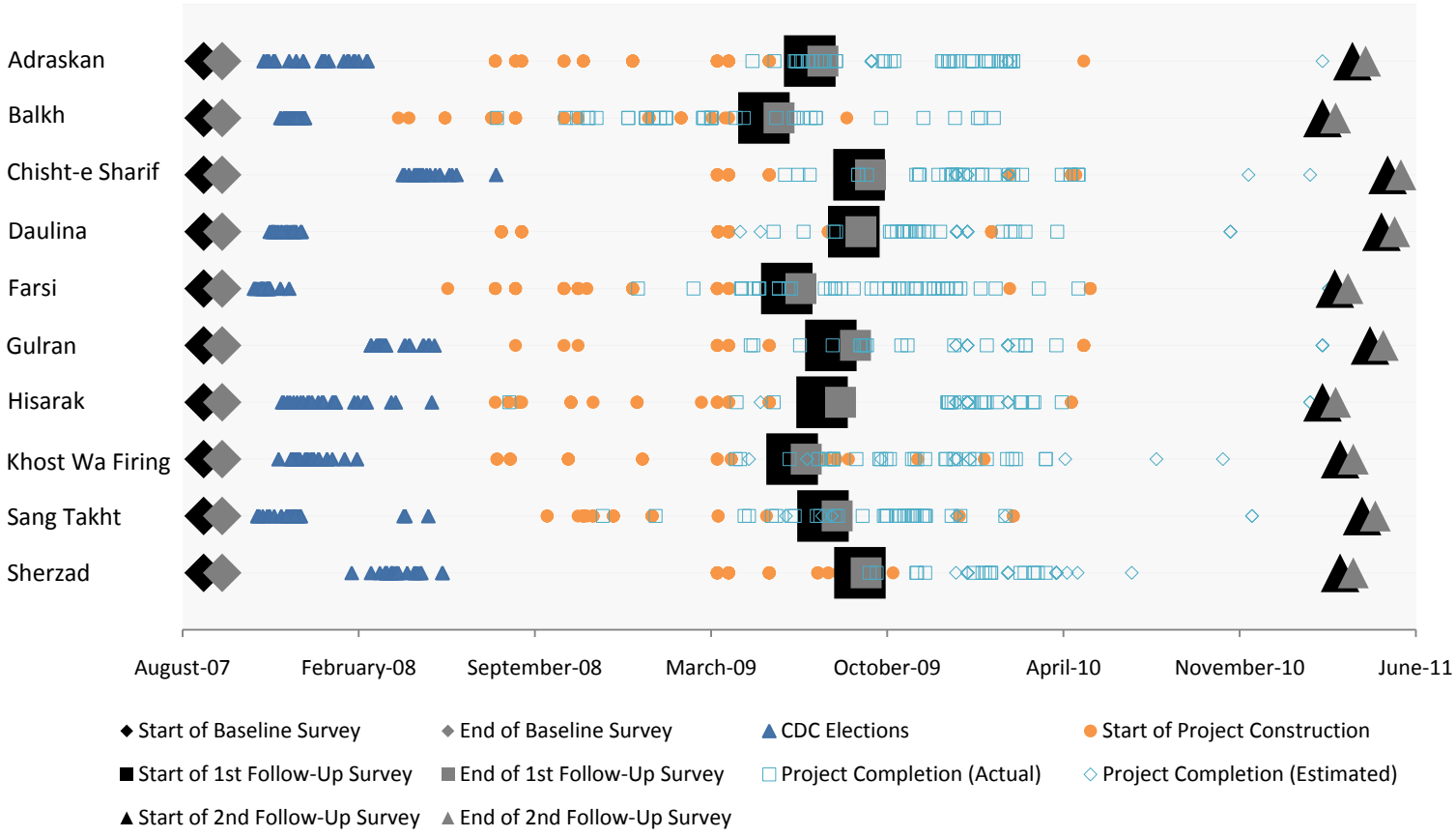
Because of the multifaceted nature of NSP's interventions and the relatively long cycle over which those interventions occur, the study employs multiple stages to assess impacts of the program's interventions. The first stage of the evaluation, which draws on the first follow-up survey, was deployed at approximately the midpoint of program implementation to examine how the creation of CDCs impact local governance and social cohesion, how receipt of the program alters villagers' perceptions of central government and attitudes toward female participation in community life, and how the initial infusion of resources provided by NSP affects village economies. The second stage of the evaluation, to be based on the second follow-up survey conducted following the completion of NSP projects in the treatment villages, will assess impacts of the program on access to services and more long-run effects of economic activity, as well as examine the sustainability of attitudinal,

[12] Households were randomly sampled in the baseline survey based on a skip-pattern sampling method, which provided a straightforward procedure for enumerators to follow and a random sample of households in areas considered free of periodicity.

institutional, and social impacts observed by the first stage. The deployment of a third follow-up survey is also being considered as a means to examine the long-term sustainability of impacts achieved by the program.

Figure 2 below demonstrates how the baseline, first follow-up, and second follow-up surveys coincide with key stages in NSP implementation in the 250 treatment villages, such as CDC elections, the start of project construction, and the end of project construction.[13]

Figure 2. Timeline of NSP Implementation and Survey Activities in 10 Evaluation Districts



Administration of Baseline Survey

Survey activities for the evaluation commenced with the baseline survey, administered between August and September 2007 across the 250 treatment and 250 control villages. The survey was designed to test statistical balance between the treatment and control groups across key indicators, such as those delineated in Table 3 above, as well as to provide baseline data for the differences-in-differences and controlled differences specifications outlined in subsection IV.4 below. The survey covered approximately 13,899 male and female villagers and village leaders, including 4,895 male

[13] Where indicated in the graph, project completion dates are extrapolated based on project start dates and the median time-to-completion of 271 days

household participants, 5,334 male focus group participants in 489 villages, 3,670 female focus group participants in 493 villages, and 3,515 female individual respondents.[14]

Administration of First Follow-Up Survey

The first follow-up survey was administered between May and October 2009 and interviewed a total of 14,889 male and female villagers and village leaders across 474 villages in the 10 sample districts. Table 4 below presents a summary of the number of interviews conducted and villages surveyed by the first follow-up survey.

Table 4. Summary of First Follow-Up Survey

	Male Household (MHH)			**Female Household** (FHH)		
	Interviews	Surveyed Villages	Attritted Villages	Interviews	Surveyed Villages	Attritted Villages
Control	2,299	235	15	2,090	214	36
Treatment	2,367	239	11	2,144	217	33
Total	**4,666**	**474**	**26**	**4,234**	**431**	**69**

	Male Focus Group (MFG)			**Female Focus Group** (FFG)		
	Participants	Surveyed Villages	Attritted Villages	Participants	Surveyed Villages	Attritted Villages
Control	1,589	233	17	1,415	212	38
Treatment	1,608	236	14	1,377	212	38
Total	**3,197**	**469**	**31**	**2,792**	**424**	**76**

Not all 500 sample villages were able to be surveyed during the first follow-up survey due to a deterioration in security conditions affecting 11 treatment and 15 control villages, located primarily in the districts of Sherzad and Daulina. Cultural sensitivities precluded the administration of female household and female focus group questionnaires in an additional 21 control and 22 treatment villages spread across Sherzad, Daulina, Adraskan, and Chisht-e Sharif. Differences between treatment and control groups in village-level attrition are not statistically significant.

Enumerators administering the male household questionnaire for the first follow-up survey were instructed to locate and interview the same households and, whenever possible, the same villagers who participated in the baseline survey. During the first follow-up survey, enumerators were able to successfully administer the male household questionnaire to male respondents in 65 percent of households in which male respondents were interviewed during the baseline survey. Ninety percent of these first follow-up survey respondents (58.4 percent of baseline MHH interviewees) were the same individuals interviewed during the baseline, with the remaining 10 percent (6.3 percent of baseline MHH interviewees) comprising cases where another male member of the baseline respondents' household was interviewed. In another 2 percent of cases, a different household member residing at the same compound was interviewed. For the remaining 34 percent of baseline household respondents, neither another household member nor a male member of another household residing in the same compound could be interviewed. In these cases, replacement respondents were randomly selected from the village population using the same rules as were employed during the baseline survey.

[14] A full summary of the baseline survey results is provided in Beath, Christia, and Enikolopov (2008), available at <http://www.nsp-ie.org>

Table 5. Household-Level Attrition

Type of Respondent	Control Villages	Treatment Villages	Total
Same Respondent	64.7%	63.9%	64.3%
Same Compound, Different Household	1.7%	1.8%	1.8%
Different Compound	33.6%	34.3%	33.9%

The predominant reason for enumerators not being able to interview baseline respondents was that the person was away from home on the day that the survey team visited the village. Less than 0.5 percent of the attrition was due to respondents from the baseline survey refusing to be interviewed again for the follow-up survey. A breakdown of household-level attrition by treatment and control groups is provided in Table 5 above. None of the differences in types of respondent between treatment and control groups are statistically significant.

Implementation Progress at First Follow-Up Survey

As shown in Figure 2 and Table 6, the first follow-up survey was administered at a time when all complying treatment villages had elected CDCs and selected projects for implementation, but before most of these projects had been completed. On average, projects were approximately 70 percent completed, with 18 percent of implemented projects fully completed.[15] Road and bridge projects were more advanced, with 31 of 88 implemented projects completed at the time of the survey, while just 3 of 46 completed electricity projects were completed.

Table 6. Rates of Completion of Projects at First Follow-Up Survey, by project type

Type of Project	Implemented Projects	Completed Projects	Percent Completed	Mean Completion Rate	Median Completion Rate
Drinking Water	90	16	18	58%	60%
Irrigation	108	14	13	61%	70%
Training or Literacy Courses for Women	68	12	18	73%	80%
Agricultural Equipment	12	0	0	55%	65%
Roads or Bridges	88	31	35	70%	85%
Electricity	46	3	7	48%	50%
Communal Toilet Facilities	4	0	0	45%	48%
Community Center	17	2	12	57%	65%
Total	**433**	**78**	**18%**	**62%**	**70%**

The timing of the first follow-up survey was deliberate in order to enable the first stage of the evaluation to assess the impacts of the creation of CDCs on local governance and of the program's general impact on attitudinal and social outcomes. The first stage of the evaluation is much more constrained, however, in its capacity to explore impacts of the program on access to services and economic activity, given that most projects were not finished at the time of the survey. Evidence relating to these groups of indicators is presented below, but it is important to note that processes considered to drive the respective effects have, for much of the sample, not yet become operational and will be thoroughly assessed in the second follow-up survey.

[15] Analysis based on estimates provided by facilitating partners

Second and Third Follow-Up Surveys

A second follow-up survey, similar in structure to the first follow-up survey, is scheduled to be deployed in spring 2011, at which time it is expected that projects funded by NSP for implementation in the treatment villages will be completed, but before any of the control villages or villages surrounding the control villages are mobilized by NSP. The survey will provide evidence of the sustainability of impacts on political and social indicators identified by the first follow-up survey and, as noted above, will also provide more complete evidence of the impacts of projects funded by NSP on the access of villagers to utilities, infrastructure, and services and on economic activity at the village level.

In addition to the second follow-up survey, a third follow-up survey is being considered for deployment between 2013 and 2015 as a means of examining the long-term sustainability of impacts generated by NSP. At this time, the control villages will have been fully mobilized by the program. This will make it difficult to compare treated villages from the initial cohort to their suitable control villages; however, the survey will provide valuable information regarding the sustainability of observed impacts and their trajectory over time.

IV.4. Estimation Procedure

This subsection presents estimates of the average treatment effect (ATE) of NSP on outcomes of interest, employing data from the male household (*MHH*), female household (*FHH*), male focus group (*MFG*), and female focus group (*FFG*) questionnaires.[16] For each indicator, two specifications are estimated: (1) a simple ordinary least squares (OLS) regression of the outcome on a binary variable representing treatment assignments, and (2) the OLS regression with district fixed-effects added. For indicators for which baseline information is available, a differences-in-differences specification is also estimated, which accounts for random variation between treatment and control groups at the time of the baseline. Further details about the specifications are provided below.

Basic OLS

The basic OLS specification estimates the following regression:

$$Y_{ijk}^{FU} = \alpha + \beta \cdot NSP_{jk} + \varepsilon_{ijk}$$

where Y_{ijk}^{FU} is a particular measure from the follow-up survey for respondent *i* in village *j* in district *k*, and NSP_{jk} is a dummy variable that equals 1 if village *j* in district *k* was initially assigned to be mobilized under NSP, and 0 otherwise.[17] The assigned treatment status is employed, rather than whether each treatment or control village actually received NSP prior to the administration of the first follow-up survey. The intention-to-treat (ITT) approach avoids bias arising from endogeneity of actual treatment status. Across the sample, however, violations of treatment status appear rare,

[16] The ATE captures the difference between the average response across the sample of treatment and control villages and accordingly does not necessarily represent the treatment effect pertaining to the general population or the wider sample of villages covered by NSP. Due to the fact that attrition in the sample was related to the security situation, it cannot be treated as random, although it is clearly not related to treatment status. Thus, although the analysis will provide internally valid estimates of the average treatment effect for relatively secure villages, the results cannot be generalized to villages affected by security problems.

[17] In this approach, β is numerically equal to the simple difference in means between the treatment and control groups.

with just five control villages receiving NSP and eight treatment villages not receiving the program.[18] The results reported below hold even if actual treatment status is used rather than assigned treatment status. Standard errors for the regressions are corrected for clustering at the village-cluster level.[19]

District Fixed Effects

In order to accommodate variation between districts in outcomes of interest, a similar regression with district fixed effects is also estimated. This takes the following form:

$$Y_{ijk}^{FU} = \alpha + \beta \cdot NSP_{jk} + \delta_k + \varepsilon_{ijk}$$

where δ_k is a dummy variable that equals 1 if village *j* is located in district *k*. As with the basic OLS specification, standard errors are clustered at the village-cluster level.

Differences-in-Differences

The difference-in-difference estimation incorporates data from the baseline survey. This analysis is complicated by the fact that not all male household respondents surveyed during the baseline were available for interview during the first follow-up survey. In addition, differences in measurement employed for some indicators in the two surveys confine the comparison of differences to a subsample of indicators in the first follow-up survey. The difference-in-difference specification, which applies to male household respondents interviewed in both surveys and to indicators common to both surveys, is as follows:

$$Y_{ijk}^{FU} = \alpha + \beta \cdot NSP_{jk} + \gamma \cdot Y_{ijk}^{BS} + \varepsilon_{ijk}$$

where Y_{ijk}^{BS} is the same indicator, but measured during the baseline.[20] As with the basic OLS specification, standard errors are clustered at the village-cluster level.

Although female household questionnaires were not administered during the baseline survey, the fact that male and female household questionnaires were administered to members of the same household during the first follow-up survey and the repeated surveying of male household respondents facilitates a means to generate difference-in-difference regressions for some female household indicators. These difference-in-difference regressions, which combine female household first follow-up survey data with male household baseline data, are designated in the results tables in Section 0 below with the MHH abbreviation appearing in italics below the FHH abbreviation in the instrument ("inst.") column, as follows: FHH *MHH*

For some indicators for which baseline data at the household level is not available, a controlled difference specification is employed to account for between-village variation from the baseline

[18] We use a variety of checks to verify compliance with treatment assignments. These include reports from implementation monitors, reports by facilitating partners working in the ten evaluation districts, as well as analysis of trends in the first follow-up survey data. Most of the cases of noncompliance result from inadvertent language errors pertaining to village names.

[19] The 500 sample villages are divided into 324 village clusters.

[20] Note that as opposed to the standard specification $Y_{ijk} = \alpha + \beta \cdot NSP_{jk} + \gamma \cdot Post + \rho Post * NSP_{jk} + \varepsilon_{ijk}$, the specification employed here uses a more flexible functional form, which doesn't assume that the coefficient on the lagged outcome is exactly minus one. In addition, it is more easily generalized to the case in which the measure used in the baseline is not exactly the same as in the follow-up, as is the case for some of the questions in our analysis.

survey in closely related indicators. In this specification, baseline responses are averaged for the respective village, thereby acting as a village-level control variable. Note that as this approach does not impose the restriction that households must be sampled both in baseline and first follow-up surveys, the sample sizes for controlled difference regressions are commonly much larger than those available for controlled difference regressions. The specification for the controlled difference is as follows:

$$Y_{ijk}^{FU} = \alpha + \beta \cdot NSP_{jk} + \gamma \cdot \hat{Y}_{jk}^{BS} + \varepsilon_{ijk}$$

Where $\hat{Y}_{jk}^{BS}$ is a measure that is closely related to Y_{ijk}^{FU}, but which is ordinarily administered using a different survey instrument. As with other specifications, standard errors are clustered at the village-cluster level.

Controlled difference specifications are designated in the results tables in Section V below with the abbreviation for the instrument used to provide the controlled difference appearing in parentheses below the abbreviation of the instrument used for the first follow-up survey indicator data in the instrument ("inst.") column. For example, a controlled-differences specification employing village-level aggregated data from the female individual questionnaire and first follow-up survey data from the female household questionnaire is designated as follows: $^{\text{FHH}}_{\text{(FI)}}$

Aggregation of Indicators

To provide a summary of the impacts of NSP on different indicators, the effect of NSP on aggregate indices is estimated. Each summary index aggregates information from all the indicators that belong to the same category and come from the same survey instrument. The summary index is defined to be the equally weighted average of z-scores of its components, with the sign of each measure oriented so that the expected effect of NSP is positive. The z-scores are calculated by subtracting the group mean and dividing by the group standard deviation. The effect of NSP on summary indices is estimated using the basic OLS specification:

$$\overline{Y_{ijk}^{FU}} = \alpha + \beta \cdot NSP_{jk} + \varepsilon_{ijk}$$

where $\overline{Y_{ijk}^{FU}}$ is the summary index for a particular category. The aggregation not only provides a summary of the effect for multiple indicators, but also improves statistical power to detect effects that go in the same direction within each category.

V. Estimates of Interim NSP Impact

The sections below present an analysis of the impact of NSP following the creation of CDCs, selection of projects, and commencement of project construction. To summarize the results presented below, the study finds that CDCs established by NSP do not displace customary leaders, but do gain some authority over aspects of village governance. The program increases participation by villagers in local governance and improves women's perceptions of the quality of village governance and of the benevolence of village leaders. The program does not appear to result in increased acceptance of government jurisdiction over local crimes or increased knowledge of parliamentary representatives, but does increase acceptance by men of elections as a means of selecting local leaders and improves perceptions of state and non-state actors. It also increases acceptance by men of women's participation in local governance and appears to increase connections between women in different villages and between women and district governments.

The program does not increase social cohesion within villages, but does reduce out-migration and lessens the prevalence of unhappiness among women. Using data on villages with completed projects, the study finds that NSP improves access of villagers to drinking water and electricity, but has no impact on transportation or mobility outcomes or access to irrigation. The program clearly improves villagers' perceptions of their economic situation and makes them more optimistic about the future, but does not, at this stage, alter objective measures of economic activity. NSP does appear to cause a small increase in economic engagement of women, although it does not change the role served by women in household decision-making.

Characteristics of interviews and survey respondents are described first (subsection V.1); followed by a description of impacts on indicators pertaining to local governance (subsection V.2); political attitudes and social cohesion (subsection V.3); access to utilities, infrastructure, and services (subsection V.4); and economic activity (subsection V.5).

V.1. Characteristics of Interviews and Respondents

The duration of household and focus groups interviews is statistically identical in both treatment and control villages. Male focus groups took the longest of the four instruments to administer, clocking in at just over 100 minutes, followed by female focus groups, which took an hour-and-a-half to administer. Male household interviews averaged 70 minutes, and female focus groups 65 minutes. The ages of household respondents and female focus group participants are also statistically identical. Male focus group participants were, on average, the oldest of any of the four groups, with a median age of 45 years, followed by male household respondents at 40 years, female focus group respondents at 38 years, and female household participants at 35 years.

Table 7 below presents median and mean characteristics of first follow-up survey interviews and survey respondents and participants, along with t-statistics for the correlation of differences with the treatment.

Table 7. Median and Mean Characteristics of Interviews and Survey Respondents and Participants

Indicator	Instr.	Median		Mean		*t*-statistic
		Control	Treatment	Control	Treatment	
Duration of Interview (Minutes)	MHH	70	70	71.5	70.9	- 0.45
	FHH	65	66	68.8	68.8	0.01
	MFG	102	99.5	104.4	102.8	- 0.59
	FFG	90	90	93.8	96.2	0.92
Age of Respondent	MHH	40	40	42.7	42.7	0.01
	FHH	35	34	34.7	34.5	- 0.51
	MFG	45	45	46.9	45.7	- 1.83 *
	FFG	37	38	37.4	37.9	0.72
Respondent Has Received Some Education	MHH	Yes	Yes	72.8%	73.5%	0.34
	FHH	No	No	12.1%	15.5%	1.94 *
	MFG	Yes	Yes	78.3%	82.7%	1.87 *
	FFG	No	No	19.9%	25.7%	1.93 *
Respondent Has Received Some Secular, Formal Education	MHH	No	No	30.4%	30.9%	0.19
	FHH	No	No	2.4%	3.8%	2.10 **
	MFG	No	No	32.5%	34.1%	0.59
	FFG	No	No	5.1%	7.4%	1.75 *
Years of Education Obtained by Respondent	MHH	0	0	1.28	1.38	1.10
	FHH	0	0	0.35	0.44	1.51
	MFG	0	0	1.33	1.49	1.03
	FFG	0	0	0.62	0.83	1.85 *

Notes: standard errors for *t*-statistics clustered by 304 clusters of villages; *statistically significant at 10 percent level; **statistically significant at 5 percent level; ***statistically significant at 1 percent level

No differences are apparent between treatment and control groups in the educational characteristics of male household respondents, with 73 percent of respondents claiming they had received at least some form of education and 30 percent claiming to have received at least some primary education in a secular, formal institution. Small, but statistically significant, differences exist in the education attainment of female household respondents and male and female focus group participants, with those in treatment groups exhibiting slightly higher levels of education than those in the control group. The proportion of female household respondents in the control group who had received some form of education is 12 percent, compared to 16 percent in the treatment group. The corresponding figures for the male focus group are 78 and 83 percent, while those for the female focus group are 20 and 26 percent.

V.2. Village Governance

The subsection explores the impact of NSP on the structure of village governance; the provision of governance services and the division of functions between governance entities; and how villagers participate in and perceive village governance.

As described in greater detail below, NSP is found to alter the structure of village governance by increasing the frequency of village councils and increasing female participation in local governance, but not to affect the presence of customary title-holders. Councils generated by NSP assume some authority in village decision making, but the program does not result in any substantial erosion of local governance functions accorded to customary title-holders, although there is evidence of a marginal transfer of functions from tribal elders to the village council. NSP does not appear to affect the degree of involvement of customary title-holders in local governance activities or result in increased provision of local governance services generally. NSP increases attendance by male villagers at meetings of the village assembly and increases the frequency of meetings of the village assembly, but does not have any significant impact on perceptions of male respondents of the quality of village governance or the benevolence of village leaders. As a result of NSP, women are more cognizant of the village leadership and are more likely to attend meetings of a village council. The program also causes a small increase in the awareness of local governance services by women and a substantial increase in the provision of services for women by village authorities. NSP also makes women more likely to hold a positive image of local leaders and to believe that such leaders are responsive to the needs of women.

Table 8 below provides a summary of estimated impacts of NSP on different categories of village governance generated by aggregating indicators assigned to each category. These aggregates are constructing by orienting each variable within this category in the same direction (i.e. ensuring that larger values are "good", multiplying by -1 if needed), then transforming each of these variables to a z-score and summing across them. Coefficients, standard errors, and statistical significance levels (if applicable) are presented in the center of the cell, the number of constituent indicators on the right of the cell, and the sample size at the bottom of the cell. Based on the aggregate regressions, evidence that NSP is significantly impacting indicators in the respective category is summarized as strong (aggregate regressions are, on average, statistically significant at the 1 percent level), moderate (statistically significant at the 5 percent level), weak (statistically significant at the 10 percent level), or none (statistically insignificant).[21]

The regressions conducted on aggregate measures of village governance demonstrate that NSP has a strong impact on the existence of customary leaders and the village council, on the affiliations of identified decision makers, on all measures of the functions undertaken by village authorities, on attendance of villagers at meetings of the village assembly, and on activism and recourse for unjust decisions. The program has only a weak impact, though, on the capacity of villagers to identify village decision makers and a moderate impact on the perceived quality of local governance.

[21] Results for categories for which aggregations span more than one instrument are summarized for the "Evidence of Impacts" column by taking the average of the significance level of the regressions, weighted by the number of constituent indicators.

Table 8. Impacts of NSP on Aggregate Measures of Village Governance

Group	Category	Evidence of Impacts	Instrument							
			MHH		FHH		MFG		FFG	
Structure	Existence of Customary Leaders and Village Council	Strong	+.456 (.029)*** *4,666*	6	+.830 (.062)*** *3,654*	2	+.562 (.034)*** *469*	6	-	
	Capacity of Villagers to Identify Village Decision Makers	Weak	+.037 (.031) *4,666*	2	+.131 (.053)** *4,206*	2	-		-	
	Affiliations of Identified Village Decision Makers	Strong	+.390 (.026)*** *4,666*	5	+.244 (.027)*** *4,234*	5	-		-	
	Continuity of Identified Village Decision Makers	Weak	+.138 (.074)* *2,914*	1	-		-		-	
Functions	Volume of Activities by Customary Leaders and Councils	Strong	+.196 (.043)*** *4,666*	5	+.121 (.024)*** *4,216*	2	-		-	
	Responsibility for Mediation of Village Disputes	Strong	+.095 (.017)*** *4,662*	7	+.097 (.019)*** *4,213*	7	-		-	
	Responsibility for Provision of Emergency Assistance	Strong	+.052 (.016)*** *4,659*	7	+.041 (.017)** *4,225*	7	-		-	
	Responsibility for Certification of Documents	Strong	+.154 (.018)*** *4,661*	7	-		-		-	
	Responsibility for Guidance of Moral Conduct	Strong	-		+.032 (.011)*** *4,219*	7	-		-	
Reception	Attendance of Villagers at Meetings of Village Assembly	Strong	+.117 (.047)** *4,539*	1	+.286 (.058)*** *1,673*	1	-		-	
	Activism and Recourse for Unjust Decisions	Strong	+.076 (.018)*** *4,665*	8	+.056 (.016)*** *4,227*	8	-		-	
	Perceived Quality of Local Governance	Moderate	-.014 (.031) *4,665*	7	+.078 (.039)** *4,228*	4	-		+.245 (.106)** *421*	1

Notes: Dependent variable represents an aggregation, by z-scores, of indicators in respective category (indicators are inverted where appropriate); standard errors clustered by 304 clusters of villages; no district fixed effects or other control variables included in regressions; *:statistically significant at 10 percent level; **statistically significant at 5 percent level; ***statistically significant at 1 percent level

This subsection is divided into three groups of indicators, which describe the estimated impacts of NSP on the structure of village governance, functions of village governance, and perception of local governance.

Structure of Village Governance

NSP increases the existence of village councils and councils in which women have membership, but has no effect on the presence in villages of customary leaders, such as headmen, members of the clergy, or paramilitary commanders. Evidence exists that the creation of village councils results in a shift in decision-making authority from persons primarily identified as tribal elders, and to a lesser extent from other customary title-holders, to those identified as affiliated with the council. This change is not caused simply by villagers assigning new titles to the same leaders; evidence exists that NSP introduces new people into the pool of village decision makers. However, this change in leadership personalities appears to occur outside the core of the village leadership and there is no evidence that NSP alters the personalities most commonly identified as village leaders. Finally, although NSP is found to have no impact on the ability of male villagers to identify personalities with decision-making authority in the village, it does appear to positively affect the ability of female villagers to do so, implying that the program induces a greater awareness among women concerning village governance.

The following subsections present, in turn, estimates of the impacts of NSP on the existence of customary leaders and councils, the identification of village decision makers, affiliation of village decision makers, and continuity of village decision makers.

Existence of Customary Leaders and Village Councils

NSP does not have any impact on the presence of customary leaders, such as village headmen, members of the clergy, or paramilitary commanders. However, the program results in a sharp increase in the proportion of villages with village councils, specialized women's councils, and in the likelihood of women holding membership in one or more of the village councils.

Table 9 presents a summary of the regression results for each indicator. The "Inst." column indicates the instrument(s) that provides for the regression, using the abbreviations introduced in subsection IV.3 above. If two abbreviations are present in this column, this indicates a controlled difference (denoted with parentheses around the second instrument abbreviation), or a difference-in-difference specification employing two different instruments (denoted with no parentheses around the second instrument abbreviation, which is italicized). The "Obs." indicates the number of observations. If a difference-in-difference or controlled difference regression is run for the indicator, two numbers are present in the respective cell, with the first indicating the sample size for the OLS and district fixed effects (Dist. F.E.) regressions, and the second, italicized number representing the sample size for the difference-in-difference or controlled difference regression. The "Control" column provides the mean level of the indicator for the respective instrument in the control group, with the "Treat." column providing the same for the treatment group. The "OLS", "Dist. F.E.," and "D-i-D" columns present point estimates, robust standard errors (clustered by village clusters), and significance levels (if applicable) for the OLS, district fixed effects, and difference-in-difference / controlled difference regressions, which employ specifications outlined in subsection IV.4 above. In the event that a difference-in-difference or controlled difference regression uses a baseline indicator that differs from the follow-up survey indicator, a superscripted δ appears to the right of the point estimate, with a description of the difference in the key at the bottom of the table.[22]

[22] Further information on the exact questions used to provide data for each indicator are available in the Appendix of Specifications, available at the evaluation website at < http://www.nsp-ie.org>

Table 9. Impact of NSP on Existence of Customary Leadership and Village Councils

Indicator	Inst.	Obs.	Control	Treat.	OLS	Dist. F.E.	D-i-D
Headman is Affiliated with Village	MHH (MHH)	4,632 *4,632*	75.1%	75.8%	+.007 (.039)	-.000 (.016)	-.002 δ (.031)
	MFG (MHH)	469 *469*	78.5%	78.3%	-.002 (.041)	-.010 (.026)	-.012 δ (.035)
Member of Clergy is Affiliated with Village	MHH (MHH)	4,558 *4,558*	94.0%	94.5%	+.006 (.015)	+.006 (.014)	+.007 δ (.015)
	MFG (MHH)	469 *469*	94.8%	96.1%	+.013 (.020)	+.013 (.020)	+.014 δ (.020)
Commander is Affiliated with Village	MHH (MHH)	4,647 *4,647*	10.6%	8.5%	-.021 (.018)	-.021 (.017)	-.022 δ (.018)
	MFG (MHH)	469 *468*	9.4%	11.0%	+.016 (.027)	+.014 (.027)	+.015 δ (.027)
Council is Affiliated with Village	MHH	4,666 *2,592*	34.5%	88.7%	+.542 (.032)***	+.539 (.029)***	+.546 (.035)***
	FHH *MHH*	3,564 *1,978*	28.0%	69.2%	+.412 (.035)***	+.398 (.029)***	+.433 (.038)***
	MFG	467 *467*	37.2%	95.8%	+.585 (.036)***	+.583 (.034)***	+.586 (.035)***
Women's Council is Affiliated with Village	MHH (MFG)	4,578 *4,578*	4.4%	41.4%	+.370 (.033)***	+.364 (.027)***	+.370 (.033)***
	FHH (MFG)	3,506 *3.506*	4.7%	38.4%	+.337 (.029)***	+.327 (.025)***	+.336 (.029)***
	MFG	468 *468*	3.0%	54.7%	+.516 (.039)***	+.510 (.034)***	+.515 (.038)***
At Least One Woman is Member of At Least Once Council	MHH (MFG)	2,627 *2,627*	23.5%	77.7%	+.542 (.046)***	+.517 (.042)***	+.544 (.045)***
	MFG	311 *311*	20.9%	95.1%	+.742 (.051)***	+.727 (.050)***	+.747 (.049)***

Notes: *statistically significant at 10 percent level; **statistically significant at 5 percent level; ***statistically significant at 1 percent level; standard errors clustered by 304 clusters of villages; δ: Baseline question differs from first follow-up survey question, with former addressing title of identified village leaders

As shown in Table 9, NSP has no effect on the presence of headmen, members of the clergy, or the existence of paramilitary commanders. Three-quarters of male household respondents and focus groups report there is a headman affiliated with their village, with such reports occurring with the same frequency in control and treatment groups.[23] Approximately nine-out-of-ten male household respondents and male focus groups, in both in control and treatment groups, indicate that their village either has a resident *mullah* or that there is a *mullah* in a neighboring village who regularly provides services to the people of the village. Paramilitary commanders are rarely linked with either

[23] Note that the MHH specification for this indicator and those pertaining to the presence of the members of the clergy and commanders employs a controlled difference specification even though both baseline and follow-up data is provided by the MHH instrument. This was done to account for the difference between the baseline and follow-up survey indicators, with a village-level average of the baseline indicator considered to be a more accurate representation of whether or not the respective governance entity was present in the village at the time of the baseline survey.

treatment or control villages, with only 10 percent of male household respondents and focus groups reporting such.

NSP results in a large increase in the proportion of respondents and focus groups who report that their village has a dedicated council or shares a council with a neighboring village.[24] In control villages, the existence of councils is surprisingly infrequent, with only 35 percent of male villagers, 28 percent of female villagers, and 37 percent of male focus groups reporting such. In the treatment group, these figures rise to 89 percent, 69 percent, and 96 percent respectively. NSP also causes a large increase in the existence of affiliated women's councils and in council structures with at least one female member. Whereas only 4 percent of male villagers, 5 percent of female villagers, and 3 percent of male focus groups in the control group report the existence of a women's council affiliated with the village, these proportions rise to 41 percent, 38 percent, and 55 percent in the treatment group. In the control group, 24 percent of male villagers and 21 percent of focus groups report that at least one woman is a member of at least one of the village councils, compared to 78 percent and 95 percent respectively in the control group.

Identification of Village Decision-Makers

Male and female respondents were asked to provide the names of up to three people that they considered to be the most important decision-makers in the village and to rank them by their importance in village decision-making. Analysis of this data indicates that NSP generally does not affect the ability of male respondents to identify decision-makers in their village, but is associated with a higher capacity among women to identify such decision-makers.

Table 10. Impact of NSP on Capacity to Identify Village Decision-Makers

Indicator	Inst.	Obs.	Control	Treat.	OLS	Dist. F.E.	D-i-D
Respondent Names At Least One Village Decision Maker	MHH	4,666 *2,665*	99.5%	99.6%	+.001 (.002)	+.001 (.002)	+.002 (.003)
	FHH	4,206	80.0%	85.8%	+.058 (.022)***	+.054 (.019)***	-
Respondent Names Maximum Number of Village Decision Makers	MHH	4,666 *2,665*	86.2%	88.4%	+.022 (.015)	+.022 (.013)*	+.012 (.019)
	FHH	4,206	53.2%	58.6%	+.054 (.028)*	+.052 (.024)**	-

Male household respondents are, for the most part, readily able to identify decision makers in their village, with almost all respondents able to identify at least one village decision maker. Levels of such knowledge are very high in both control and treatment communities, where almost all male respondents could name at least one decision maker in their village. In control villages, 86 percent of male household respondents were able to name the maximum number of three decision makers, while 88 percent of respondents in treatment villages could do so. The difference is not statistically significant in the basic OLS or difference-in-difference specifications, but is statistically significant at

[24] Councils created by NSP tend to have quite different compositions from those councils that exist in control villages. Specifically, councils in treatment villages are statistically significantly less likely to contain village headmen and members of the clergy, although there is no difference in membership rates among commanders. There is no difference between councils in treatment and control villages in council leadership, with both groups reporting statistically comparable proportions of councils led by a village headman (32 percent in control; 28 percent in treatment), member of the clergy (6 percent in control and treatment), commander (2 percent in control and treatment), or tribal elder (28 percent in control and treatment).

the 10 percent level once district fixed effects are incorporated into the regression. There is weak evidence to suggest NSP has a small positive impact on the ability of male household respondents to identify village decision makers.

NSP has a statistically significant impact on the ability of female respondents to identify village decision makers. Specifically, NSP induces a 6 percentage point increase in the proportion of respondents who could name at least one village decision maker, relative to 80 percent of respondents in control villages, and induces a 5 percentage point increase in the proportion of respondents who could name three village decision makers, relative to 53 percent in the control group. Both differences are statistically significant with or without district fixed effects. No difference-in-difference or controlled difference specifications were employed for these indicators for female respondents due to the absence of an FHH baseline instrument, which could provide information on the capability of the same female respondents to identify decision makers at the time of the baseline.

Affiliation of Village Decision Makers

For each decision maker identified, respondents identified the title, affiliation, or other source of authority of the decision maker, enabling an analysis of how NSP affects the type of people that villagers identify as decision makers. NSP is found to increase the probability of identification of members or heads of councils and reduces the probability of tribal elders, village headmen, or members of the clergy being identified.

Table 11. Impact of NSP on Affiliation of Identified Village Decision Makers

Indicator	Inst.	Obs.	Control	Treat.	OLS	Dist. F.E.	D-i-D
At Least One Decision Maker is Identified as Council (including CDC) Affiliate	MHH	4,635 *2,648*	13.9%	62.3%	+.484 (.027)***	+.485 (.025)***	+.490 (.030)***
	FHH *MHH*	3,993 *2,257*	11.2%	40.0%	+.288 (.027)***	+.286 (.025)***	+.292 (.030)***
At Least One Decision Maker is Identified as Headman	MHH	4,635 *2,648*	49.2%	42.4%	-.071 (.040)*	-.080 (.024)***	-.060 (.039)
	FHH *MHH*	3,993 *2,257*	56.6%	53.6%	-.030 (.040)	-.028 (.021)	-.049 (.041)
At Least One Decision Maker is Identified as Member of Clergy	MHH	4,635 *2,648*	16.4%	9.8%	-.066 (.021)***	-.064 (.019)***	-.069 (.021)***
	FHH *MHH*	3,993 *2,257*	15.0%	10.2%	-.047 (.021)**	-.048 (.019)**	-.047 (.020)**
At Least One Decision Maker is Identified as Commander	MHH	4,666 *2,665*	1.4%	0.9%	-.005 (.005)	-.005 (.005)	-.006 (.006)
	FHH *MHH*	4,234 *2,379*	3.8%	0.9%	-.028 (.009)***	-.029 (.009)***	-.026 (.011)**
At Least One Decision Maker is Identified as Tribal Elder	MHH	4,635 *2,648*	88.6%	63.8%	-.248 (.021)***	-.246 (.019)***	-.259 (.025)***
	FHH *MHH*	3,993	68.6%	57.2%	-.114 (.033)***	-.118 (.026)***	-.101 (.037)***

NSP increases the propensity of both male and female respondents to identify membership or leadership of a village council report as the primary title or source of authority of at least one of three village decision makers. Among male respondents, the respective proportion rises from 14

percent in the control group to 62 percent in the treatment group, while among female respondents, the share rises from 11 percent to 40 percent. Differences for both sets of respondents are statistically significant in all specifications. Note that, for this and other indicators in this subsection, a difference-in-difference specification is employed for female respondents using responses provided by the male respondent in the same household at the time of the baseline survey.

Evidence exists that NSP reduces the propensity of male respondents to identify the headman as one or more decision makers, although there is no statistically significant difference in the responses provided by female respondents. Male respondents are 7 percentage points less likely to identify the headman as a decision maker, relative to 49 percent in the control group, with the difference statistically significant in all specifications except difference-in-difference. Across the sample, 55 percent of female respondents report that one of the decision makers they identified serves as the headman of the village.

Male and female respondents are less likely, as a result of NSP, to identify a member of the clergy as a village decision maker. Even in the control group, the proportion of respondents identifying members of the clergy as decision makers is low, at 16 percent of male and 15 percent of female villagers. Assignment of a respondent to the treatment group reduces the respective proportions further by 7 percent and 5 percent. Differences for both male and female respondents are significant in all tested specifications.

No statistically significant difference is observed in the propensity of male respondents to identify commanders as village decision makers, with just 1 percent of respondents in the treatment and control groups doing this. NSP does reduce, however, the propensity of female respondents to identify commanders as village decision makers, with the respective levels standing at 4 percent in the treatment group and 1 percent in the control group. The difference is statistically significant in all tested specifications.

Tribal elders are cited as decision makers with much less frequency in treatment villages. Specifically, male villagers are 25 percentage points less likely to mention tribal elder as the primary affiliation of one of the decision makers, compared to 64 percent in the control group. Female respondents are 11 percentage points less likely, compared to 57 percent in the control group. Differences are statistically significant in all specifications.

Continuity of Village Decision Makers

NSP reduces the probability that a decision maker identified in the baseline survey is re-identified as a decision-maker in the first follow-up survey. This effect is caused mainly by a difference between the treatment and control groups in the propensity of "weak leaders," which are those cited by a relatively small number of respondents in the baseline survey, being re-identified in the first follow-up survey. No difference is apparent between treatment and control groups in the propensity of "strong leaders," cited by a relatively high number of respondents in the baseline survey, to be re-identified in the first follow-up survey. It appears that NSP alters only the periphery of the village leadership and does not infringe on the prominence enjoyed by core village leaders.

Table 12. Impact of NSP on Continuity of Village Decision Makers

Indicator	Inst.	Obs.	Control	Treat.	OLS	Dist. F.E.
Proportion of Village Decision Makers Identified in Baseline Survey Also Identified in 1st Follow-Up Survey	MHH	2,914	36.4%	31.3%	-.050 (.027)*	-.056 (.024)**
Proportion of Village Decision Makers Infrequently Identified in Baseline Survey Also Identified in 1st Follow-Up Survey	MHH	1,798	28.3%	21.7%	-.066 (.028)**	-.073 (.026)***
Proportion of Village Decision Makers Frequently Identified in Baseline Survey Also Identified in 1st Follow-Up Survey	MHH	1,116	49.1%	47.1%	-.019 (.040)	-.012 (.037)

In order to assess if NSP changes the people, rather than just the titles, of those identified as village leaders, a comparison is made of differences between treatment and control groups in the probability of an individual identified as a village decision maker in the baseline survey being cited again as a village decision maker by respondents in the first follow-up survey.[25] In control villages, the names of 41 percent of decision makers mentioned by male household respondents in the baseline survey were mentioned again by at least one respondent in the first follow-up survey. In the treatment group, the figure is 36 percent, with the difference between the two groups being significant with and without district effects.[26]

To facilitate detailed analysis, the set of 2,914 decision makers identified by respondents in the baseline survey is partitioned into a group of 1,798 decision makers mentioned by fewer than four of the ten male household respondents in a village and a group of 1,116 decision makers mentioned by four or more respondents. Among the group of infrequently cited decision makers, NSP induces a statistically significant decrease of 7 percentage points in the probability of a baseline survey respondent receiving a mention by first follow-up survey respondents, relative to 35 percent in the control group. However, among the group of frequently cited decision makers that form the core of the village leadership, NSP has no statistically significant impact on the probability of re-citation, which stands at approximately 50 percent. As such, NSP alters village decision-making structures primarily by displacing peripheral members of the village leadership, rather than changing the personalities that form the core of the village leadership.

Functions of Village Governance Authorities

NSP induces a partial, but not complete, transfer of village governance authority from tribal elders to the village council, which is usually the Community Development Council (CDC) established by NSP. Specifically, across a wide range of areas of service provision—including the mediation of disputes, provision of emergency assistance, and certification of documents—NSP increases the

[25] For each village decision maker identified in the baseline survey, 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 first follow-up survey, with the variable assuming zero otherwise. To compare continuity of village decision makers between treatment and control villages, 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

[26] Additional analysis examined the effect that election to the CDC has on the probability of decision makers mentioned in the baseline survey also being cited in the first follow-up survey. Among decision makers identified by at least one respondent in the baseline survey and not elected to the CDC, 29 percent were re-identified in the first follow-up survey. Among decision makers elected to the CDC, 75 percent were re-identified. Among infrequently cited decision makers, CDC election increases the probability of re-identification from 22 to 64 percent. For frequently cited decision makers, CDC election increases probability of re-identification from 42 to 85 percent.

frequency of villagers reporting that the village council (or its members) is the entity responsible for performing the respective function. Corresponding decreases are observed in the frequency of ascriptions of responsibility to tribal elders.

The shift in authority from tribal elders to the village council, although statistically significant and numerically sizeable, is not large enough to result in village councils dominating the performance of functions that have traditionally been the domain of customary authorities. The primacy of authority of customary titleholders, such as village headmen and *mullahs*, over functions traditionally accorded to them, as well as their general level of activity in village governance, is unaffected by the program. The exception to this is the overall involvement of paramilitary commanders in local governance in the 10 percent of villages with which they are affiliated, which NSP increases.

Generally, NSP results in small, but statistically significant, increases in the proportion of women who report that there is an authority to provide particular local governance services and a substantial increase in the provision of services for women by village authorities. The program also increases the probability of villages possessing an assembly that meets on a regular basis.

The following subsections present discussion of the impacts of NSP on the overall activity among customary leaders and village assemblies, responsibility for dispute mediation, responsibility for provision of assistance, responsibility for certification of documents, and responsibility for guiding moral conduct.

Activities of Customary Leaders and Village Assemblies

The impacts of NSP on the activity of village governance authorities are generally limited to village assemblies and do not appear to have much effect on customary leaders. The effect of NSP on the activities of headmen and *mullahs*, for example, is negligible, although the program does appear to make paramilitary commanders more active in villages in the 10 percent of villages with which they are affiliated. NSP also induces an increase in activity among village assemblies—village councils or, in their absence, tribal elders—and, as a result of NSP, female villagers are more likely to report the engagement of male village assemblies in activities that benefit women. NSP also increases the likelihood of villages possessing an assembly that meets on a regular basis.

Table 13. Impact of NSP on Existence of Activities of Customary Leaders and Village Assembly

Indicator	Inst.	Obs.	Control	Treat.	OLS	Dist. F.E.	D-i-D
Provision of Services by Affiliated Headman $^{\Psi}$	MHH	3,519 *2,022*	27.8%	29.2%	+.045 (.028)	+.035 (.023)	+.029 $^{\delta 1}$ (.031)
Provision of Services by Affiliated Mullah $^{\Psi}$	MHH	4,233 *2,421*	5.2%	5.0%	+.007 (.019)	+.009 (.017)	+.011 $^{\delta 1}$ (.027)
Provision of Services by Affiliated Commander $^{\Psi}$	MHH	447 *263*	16.9%	24.2%	+.212 (.092)**	+.175 (.066)***	+.327 $^{\delta 1}$ (.106)***
Provision of Services by Village Assembly $^{\Psi}$	MHH	4,626 *2,447*	22.9%	29.1%	+.098 (.048)**	+.089 (.029)***	+.106 (.056)*
	FHH *MHH*	4,169 *2,160*	10.2%	15.3%	+.108 (.035)***	+.113 (.028)***	+.1136 (.045)***
Provision of Services for Women by Village Assembly $^{\eta}$	FHH (FI)	4,195 *4,195*	1.7%	4.5%	+.126 (.023)***	+.125 (.021)***	+.126 (.023)***
Village Assembly Meets Regularly	MHH	4,535 *2,609*	9.3%	27.2%	+.179 (.024)***	+.177 (.020)***	+.195 $^{\delta 2}$ (.026)***

Notes: ψ: Represents an aggregation of *z*-scores of the following categories of services provided during the past 12 months: establish laws for villagers; promote good behavior; resolve disputes; certify documents; liaise with government authorities; liaise with nongovernmental agencies; manage development projects; deliver religious services; protect village from attack; and other; η: Represents an aggregation of *z*-scores of the following binary meta-categories of services provided during the past 12 months by village councils (excluding women's council), or in the absence of a village council, by tribal elders to women: establish laws for villagers; engage in local governance; resolve disputes or feuds; facilitate women's participation in decision making; initiate, select, or manage development projects or training courses for women; or other activities; Values for treatment and control groups represent simple mean of binary values in component categories; δ: Baseline indicator represents an aggregate measure of responsibilities accorded to respective entity (1), and whether or not the village council or leaders met more than ten times in the past year (2).

Among the three-quarters of respondents who report that a headman is affiliated with their village, no statistically significant difference between those assigned to the treatment and control groups is observed in a weighted average of services provided by such title-holders. NSP also has no impact on the general activities of members of the clergy affiliated with villages. Among the one-in-ten male villagers who report that there is a paramilitary commander affiliated with their village, those in treatment villages are more likely to report that commanders are active in the provision of services to villagers.[27]

Male and female villagers were also asked about the activities performed during the past year by the village assembly, which is either the council(s) affiliated with the village, or if no council is affiliated with the village, the tribal elders. Large differences exist between treatment and control groups in activities ascribed by male and female villagers to the customary assemblies in control villages and the new assemblies in treatment villages.[28] In addition to activities performed by the village assembly for villagers generally, female household respondents were asked about activities of the village

[27] The increase in activity is broad-based, applying to the involvement of commanders in the provision of laws, promulgation of advice concerning moral rectitude, and communication with subnational and/or central government.

[28] Among male respondents, those in treatment villages are less likely to report that the village council was engaged in local governance and dispute resolution and more likely to report involvement of the assembly in the selection and management of development projects. Among female respondents, no difference between treatment and control groups is apparent in the proportion who report assembly involvement in local governance, although the other two results are the same.

assembly that had specifically benefited women in the village, resulting in the finding that NSP increases service provision by the village assembly for women.[29]

In 9 percent of control villages and 27 percent of treatment villages, male villagers report that the village assembly meets on a regular basis. The difference is statistically significant in all specifications, indicating that NSP has a strong positive impact on the likelihood of a village possessing a village assembly that meets regularly, even though the majority of villages in the treatment group do not have an assembly that meets on a regular basis.

Responsibility for Dispute Mediation

NSP affects the authority responsible for mediating disputes among villagers, with the village council taking on an increased role and tribal elders experiencing a reduction in the frequency they perform this role. The authority of headmen in dispute resolution is unaffected and, even with NSP, the majority of respondents cite either tribal elders or headmen as the primary mediators of disputes. Other authorities, such as members of the clergy, commanders, or government representatives, rarely serve as mediators. NSP slightly increases the likelihood of female villagers claiming there is someone who could mediate a dispute involving a village woman, although the provision of mediation services for disputes between male villagers appears to be unaffected by the program.

Table 14. Impact of NSP on Authority Identified by Male Respondents as Responsible for Mediating Disputes

Indicator	Inst.	Obs.	Control	Treat.	OLS	Dist. F.E.	D-i-D
There Exists An Authority Responsible for Mediating Disputes Over Land and Irrigation Between Villagers	MHH	4,662 *2,662*	98.9%	98.6%	-.003 (.004)	-.003 (.004)	-.004 (.005)
Authority Primarily Responsible for Mediating Disputes: Headman	MHH	4,662 *2,662*	28.1%	28.1%	-.000 (.027)	-.005 (.018)	+.020 (.027)
Authority Primarily Responsible for Mediating Disputes: Member of Clergy	MHH	4,662 *2,662*	2.3%	2.0%	-.003 (.007)	-.002 (.007)	-.003 (.007)
Authority Primarily Responsible for Mediating Disputes: Commander	MHH	4,662 *2,662*	0.3%	0.0%	-.002 (.001)*	-.002 (.001)*	-.003 (.002)
Authority Primarily Responsible for Mediating Disputes: Village Council	MHH	4,662 *2,662*	5.2%	18.3%	+.131 (.019)***	+.131 (.016)***	+.127 (.019)***
Authority Primarily Responsible for Mediating Disputes: Tribal Elders	MHH	4,662 *2,662*	61.3%	48.8%	-.125 (.027)***	-.122 (.019)***	-.140 (.029)***
Authority Primarily Responsible for Mediating Disputes: District, Provincial, or Central Government	MHH	4,662 *2,662*	2.0%	1.4%	-.006 (.005)	-.005 (.004)	-.011 (.007)

NSP does not affect the propensity of male household respondents to indicate that there is some entity able to resolve civil disputes or other problems between villagers, with 99 percent of respondents indicating that there is someone in the village who can provide this service. NSP also has no discernible impact on the propensity of respondents to identify the village headman as the person ordinarily responsible for resolving disputes (28 percent); on the proportion of respondents who report that members of the clergy have this responsibility (2 percent); or on citations of district,

[29]Among the various components of activities, NSP was observed to increase facilitation of women's involvement in decision making, the provision of local governance services to women, and the initiation, selection, and/or management of development projects for women. No statistically significant impact of NSP is observed on reports of the provision of dispute resolution services for women.

provincial, or central government officials (2 percent). A difference between treatment and control groups exists with respect to attributions of dispute resolution services to paramilitary commanders, although the respective percentages are too miniscule to assign the change any practical significance. Practically and statistically significant differences are observed between treatment and control, however, in the respective proportions reporting that the village council (or members thereof) or tribal elders. Specifically, the proportion identifying the village council, or its constituent members, as the authority primarily responsible for resolving disputes, rises from only 5 percent in the control group to 18 percent in the treatment group. The proportion identifying tribal elders as the primary authority falls by an almost concomitant amount, from 61 percent to 49 percent.

Table 15. Impact of NSP on Authority Identified by Female Respondents as Responsible for Mediating Disputes

Indicator	Inst.	Obs.	Control	Treat.	OLS	Dist. F.E.	D-i-D
There Exists An Authority Responsible for Mediating Property Disputes Involving Female Villagers	FHH *MHH*	4,213 *2,369*	86.0%	88.6%	+.026 (.015)*	+.023 (.013)*	+.026 (.017)
Authority Primarily Responsible for Mediating Disputes: Headman	FHH *MHH*	4,213 *2,369*	35.5%	35.3%	-.003 (.028)	-.002 (.021)	-.005 (.035)
Authority Primarily Responsible for Mediating Disputes: Member of Clergy	FHH *MHH*	4,213 *2,369*	5.0%	3.2%	-.018 (.009)**	-.018 (.009)**	-.018 (.009)**
Authority Primarily Responsible for Mediating Disputes: Commander	FHH *MHH*	4,213 *2,369*	1.3%	0.4%	-.005 (.003)*	-.005 (.003)*	-.008 (.006)
Authority Primarily Responsible for Mediating Disputes: Village Council	FHH *MHH*	4,213 *2,369*	2.8%	9.0%	+.062 (.013)***	+.062 (.012)***	+.065 (.014)***
Authority Primarily Responsible for Mediating Disputes: Tribal Elders	FHH *MHH*	4,213 *2,369*	32.7%	29.0%	-.037 (.028)	-.040 (.019)**	-.029 (.032)
Authority Primarily Responsible for Mediating Disputes: District, Provincial, or Central Government	FHH *MHH*	4,213 *2,369*	9.9%	12.0%	+.021 (.016)	+.020 (.013)	+.012 (.019)

A statistically significant difference between treatment and control groups exists in the proportion of female respondents who report that there is an entity that can assist in resolving a dispute over inheritance or property ownership involving a woman in the village, although the difference represents only a 3 percentage point increase relative to the control group level of 86 percent. No statistically significant differences exist between treatment and control groups in the proportions identifying village headmen (35 percent) or government representatives (11 percent) as the authority most likely to assist. NSP renders female villagers less likely to identify members of the clergy (5 percent in control; 3 percent in treatment) or commanders (1 percent in control; 0 percent in treatment) as those primarily responsible for resolving disputes involving women, although the low percentages indicate that these two authorities play peripheral roles in dispute resolution. As with male villagers, NSP makes female villagers more likely to identify the village council and less likely to identify tribal elders as the primary provider of dispute resolution services. In the control group, only 3 percent cite the village council, with respondents in the treatment group over three times as likely to do so. The reduction in the proportion of women identifying tribal elders as the responsible entity is numerically smaller, from 33 percent in the control group to 29 percent in the treatment group, and the difference is only statistically significant with district fixed effects.

Responsibility for Provision of Assistance

There is no evidence that NSP affects whether or not there exists, within a village, a source of emergency assistance for villagers suffering a personal catastrophe. NSP does increase the likelihood of respondents identifying the village council as the potential provider of assistance, but the corresponding percentages are indicative of a peripheral role in this regard for village councils. Evidence that this increase in authority of village councils comes at the expense of tribal elders is apparent in the responses of male villagers, but not female villagers. NSP does affect the expectation of village headmen, members of the clergy, commanders, or government officials providing such assistance.

Table 16. Impact of NSP on Authority Identified by Respondents as Responsible for Providing Emergency Assistance

Indicator	Inst.	Obs.	Control	Treat.	OLS	Dist. F.E.	D-i-D
There Exists An Authority Responsible for Providing Monetary or Material Assistance to Villagers in the Event of Personal Emergencies	MHH	4,659 *2,659*	18.1%	20.7%	+.026 (.020)	+.024 (.018)	+.035 (.020)*
	FHH *MHH*	4,225 *2,373*	31.9%	35.2%	+.033 (.028)	+.034 (.022)	+.042 (.031)
Headman is Responsible for Providing Emergency Assistance	MHH	4,659 *2,659*	5.1%	5.5%	+.004 (.010)	+.003 (.010)	+.019 (.012)
	FHH *MHH*	4,225 *2,373*	18.0%	19.3%	+.015 (.017)	+.013 (.021)	+.023 (.025)
Member of Clergy is Responsible for Providing Emergency Assistance	MHH	4,659 *2,659*	0.1%	0.3%	+.002 (.001)	+.002 (.001)	+.001 (.002)
	FHH *MHH*	4,225 *2,373*	0.9%	0.7%	-.002 (.004)	-.002 (.004)	-.004 (.004)
Commander is Responsible for Providing Emergency Assistance	MHH	4,659 *2,659*	0.0%	0.2%	+.002 (.002)	+.002 (.002)	+.003 (.002)
	FHH *MHH*	4,225 *2,373*	0.5%	0.0%	-.005 (.003)*	-.005 (.003)*	-.007 (.004)
Village Council is Responsible for Providing Emergency Assistance	MHH	4,659 *2,659*	0.9%	4.8%	+.048 (.008)***	+.048 (.008)***	+.044 (.009)***
	FHH *MHH*	4,225 *2,373*	0.9%	3.7%	+.028 (.007)***	+.028 (.007)***	+.028 (.008)***
Tribal Elders are Responsible for Providing Emergency Assistance	MHH	4,659 *2,659*	10.7%	8.2%	-.026 (.012)**	-.025 (.014)*	-.028 (.015)*
	FHH *MHH*	4,225 *2,373*	8.4%	8.9%	+.005 (.013)	+.005 (.013)	+.002 (.015)
District, Provincial, and/or Central Government Representatives are Responsible for Providing Emergency Assistance	MHH	4,659 *2,659*	0.0%	0.0%	- -	- -	- -
	FHH *MHH*	4,225 *2,373*	1.9%	1.4%	-.005 (.006)	-.005 (.005)	-.013 (.007)*

No statistically significant differences exist between treatment and control groups in the proportions of male and female household respondents who report that there exists an entity that can provide monetary or material assistance to a village in the event of a personal catastrophe. In addition, NSP has no effect on expectations that village headmen, members of the clergy, or government officials would provide such assistance. Among these groups, headmen were cited with relative frequency (5 percent of male villagers and 19 percent of females), while members of the clergy and government officials were cited rarely. A statistically significant difference in the responses of female villagers

exists with respect to ascription of this role to commanders, although no such difference is present in the responses of male villagers, and the numerical difference is very small. As with dispute mediation, village councils and tribal elders appear to be the entities most affected by NSP. The proportions of male and female villagers reporting that the village council is the most likely group to provide assistance increases from 1 percent among both respondent sets to 5 percent of men and 4 percent of women.[30] While there is no statistically significant difference between the propensity of female household respondents to cite tribal elders as the most likely provider of emergency assistance, a statistically significant reduction is observed in such citations by male respondents.

Responsibility for Certification of Documents

NSP appears to have a weak, albeit positive, impact on whether or not villagers are able to have a document officially notarized. The program causes a large increase in respondents according this responsibility to a member of the village council or a member thereof, although council members are rarely involved in such tasks. Decreases are observed in the proportions of respondents citing either the village headmen or tribal elders, although the respective differences are statistically fragile and the primacy of headmen in certifying documents is only marginally disturbed by NSP.

Table 17. Impact of NSP on Authority Identified by Male Respondents as Certifier of Documents

Indicator	Inst.	Obs.	Control	Treat.	OLS	Dist. F.E.	D-i-D
There Exists An Authority Responsible for Certifying Documents of Villagers	MHH	4,661 *2,661*	80.6%	84.2%	+.036 (.026)	+.032 (.015)**	+.037 δ (.029)
Authority Primarily Responsible for Certifying Documents: Headman	MHH	4,661 *2,661*	57.4%	54.8%	-.026 (.043)	-.036 (.018)**	-.033 δ (.045)
Authority Primarily Responsible for Certifying Documents: Member of Clergy	MHH	4,661 *2,661*	3.1%	1.8%	-.013 (.009)	-.012 (.008)	-.0189 δ (.009)**
Authority Primarily Responsible for Certifying Documents: Commander	MHH	4,661 *2,661*	0.0%	0.0%	- -	- -	- δ -
Authority Primarily Responsible for Certifying Documents: Village Council	MHH	4,661 *2,661*	3.6%	17.4%	+.138 (.018)***	+.139 (.016)***	+.139 δ (.020)***
Authority Primarily Responsible for Certifying Documents: Tribal Elders	MHH	4,661 *2,661*	16.4%	9.8%	-.066 (.043)	-.062 (.018)**	-.064 δ (.024)***
Authority Primarily Responsible for Certifying Documents: Government Representative	MHH	4,661 *2,661*	0.1%	0.4%	+.004 (.003)	+.003 (.002)**	+.003 δ (.003)

Notes: δ: Baseline indicator represents an aggregate measure of responsibilities accorded to respective entity

In the control group, four-out-of-five male villagers report that someone is able to certify documentation for them. This rises by four percentage points higher in the treatment group, although the difference is only statistically significant when district fixed effects are included in the regression. NSP seems to have only a weak positive effect, if any, on the provision of document certification services. No basis for statistical differentiation is apparent between the proportions of male villagers reporting that members of the clergy, commanders, or government officials regularly perform certifications, although these entities appear rarely used for this service. Headmen generally

[30] Among respondents who reported that a CDC is affiliated with their village, 6 percent identified the CDC or a CDC member as the provider of emergency assistance to villagers in need; 1 percent identified another council or council member; 9 percent identified a village elder; 4 percent identified the headman; and 77 percent reported there was no one in their village who could do this.

hold the responsibility for certifying documents for villagers, according to 57 percent in the control group and 55 percent in the treatment group. The difference is not statistically significant without the inclusion of district fixed effects, indicating that the effect of NSP on the role of headmen in this regard is weak at best. More pronounced effects exist with regard to the propensity of respondents to identify the village council or one or more tribal elders as the responsible entity. Specifically, the proportion citing the village council or a council member(s) increases from 4 percent in the control group to 17 percent in the treatment group, while the proportion citing a tribal elder falls from 16 percent to 10 percent. The former difference is statistically significant with and without district effects, while the latter appears more fragile and is not significant without the inclusion of district fixed effects.

Responsibility for Guiding Moral Conduct

A majority of female household respondents report that there is no entity that provides guidance to villagers on issues such as beard length, wearing of the *chadori* (burqa), or girls' school attendance, although NSP does induce a small, and statistically fragile, increase in the likelihood of a respondent reporting in the affirmative. An increase in reports that the village council or a council member provides guidance is attributable to NSP, but the result is too small to be meaningful. There are no other impacts of the program on ascriptions of this role to authorities.

Table 18. Impact of NSP on Authority Identified by Female Respondents as Responsible for Guiding Conduct

Indicator	Inst.	Obs.	Control	Treat.	OLS	Dist. F.E.	D-i-D
There Exists An Authority Responsible for Guiding Moral Conduct	FHH *MHH*	4,219 *2,373*	38.4%	42.6%	+.042 (.033)	+.036 (.020)*	+.081 $^{\delta}$ (.037)**
Authority Primarily Responsible for Guiding Moral Conduct: Headman	FHH	4,219 *2,373*	7.1%	6.0%	-.011 (.014)	-.011 (.012)	-.001 $^{\delta}$ (.018)
Authority Primarily Responsible for Guiding Moral Conduct: Member of Clergy	FHH	4,219 *2,373*	23.2%	25.4%	+.022 (.028)	+.019 (.016)	+.035 $^{\delta}$ (.029)
Authority Primarily Responsible for Guiding Moral Conduct: Commander	FHH	4,219 *2,373*	0.5%	0.1%	-.003 (.002)	-.003 (.002)	-.002 $^{\delta}$ (.003)
Authority Primarily Responsible for Guiding Moral Conduct: Village Council	FHH	4,219 *2,373*	0.4%	1.8%	+.014 (.004)***	+.014 (.004)***	+.017 $^{\delta}$ (.006)***
Authority Primarily Responsible for Guiding Moral Conduct: Tribal Elders	FHH	4,219 *2,373*	6.9%	8.4%	+.015 (.010)	+.014 (.010)	+.020 $^{\delta}$ (.013)
Authority Primarily Responsible for Guiding Moral Conduct: Government Representative	FHH	4,213	1.4%	1.4%	+.000 (.002)	+.000 (.002)	+.002 $^{\delta}$ (.003)

Note: δ: Baseline indicator represents an aggregate measure of responsibilities accorded to respective entity

The proportion of female villagers who report that there is an entity providing moral guidance to villagers is higher in the treatment group, at 43 percent, compared to 38 percent in the control group. The difference is not statistically significant without the addition of district fixed effects or baseline data, however, and so is fragile. Members of the clergy are the most likely authority to be identified as the providers of moral guidance to villagers, with citations from 24 percent of female respondents. NSP has no impact on the authority of the clergy in this regard, nor does it have any impact on citations of village headmen (7 percent), commanders (0 percent), tribal elders (8 percent), or government (1 percent). There is a statistically significant impact of NSP on the propensity of female villagers to identify the village council, or a council member, as the primary provider of

guidance. Despite high levels of statistical significance, however, the effect is numerically small, moving only from 0.4 percent to 1.8 percent, and is thus of limited practical significance.

Reception of Village Governance

NSP raises participation by both men and women in village governance through increasing attendance of meetings of village assemblies. The program does not appear to affect desires by men or women to become involved in local governance through advocating particular changes in decisions, and has no impact on the tendency of either demographic to recommend such actions to others who are aggrieved at local governance outcomes. NSP does increase the proportion of villagers who report that the village council is the most appropriate body to address complaints, although even with this change, a majority of villagers believe the tribal eldership or government are best placed to resolve the issue. NSP improves female villagers' perceptions of local leaders and makes women more likely to report that local leaders are responsive to the needs of women, but does not affect general perceptions of village governance, village headmen, or members of village assemblies by male villagers. NSP has no affect on the level of satisfaction of villagers with the work of village leaders or on reports by female villagers of dissatisfaction with specific actions of village leaders, but does result in a small increase in the latter among male villagers.

The following subsections discuss the impacts of NSP on participation in local governance, activism in local governance, and the perceived quality of local governance.

Participation in Local Governance

NSP increases attendance of meetings of village councils or tribal elders for male respondents and village councils and/or women's councils for female respondents.

Table 19. Impact of NSP on Number of Meetings of Village Council Attended in Past 12 Months

Indicator	Inst.	Obs.	Control	Treat.	OLS	Dist. F.E.	D-i-D
Number of Meetings of Village Council or Tribal Elders Attended by Respondent in Past 12 Months	MHH	4,539 *2,237*	3.14 meetings	4.04 meetings	+0.904 (.365)**	+0.869 (.295)***	+1.402$^{\delta}$ (.470)***
	FHH *MHH*	1,673 *804*	0.47 meetings	1.30 meetings	+0.829 (.167)***	+0.568 (.140)***	+0.984$^{\delta}$ (.223)***

Note: δ: Baseline indicator represents a binary variable indicating attendance at a meeting of the village council or elders during the past year

Among male respondents in the control group, the mean number of meetings over the past 12 months of village councils (or of tribal elders, if a council does not exist) is 3.1 meetings, while the median respondent attended just one meeting in the past 12 months. In the treatment group, these numbers rise to a mean of 4.0 meetings and median of two meetings.[31] The difference between means is statistically significant both with and without district fixed effects. Female respondents in the control group attended, on average, 0.5 meetings over the past 12 months, compared to 1.3 in the treatment group.[32] The difference between means is statistically significant both with and

[31] Fifty-four percent of male household respondents in the control group and 59 percent in the treatment group report having attended at least one meeting of the village council(s) or tribal elders in the past 12 months.

[32] Female respondents were not asked about attendance of meetings of the tribal elders in the event a respondent reported that no village or women's councils exists and, as such, the sample for female respondents is more constrained than that for male respondents.

without district fixed effects, although the median number of meetings attended for both groups is zero.[33]

Activism and Recourse for Unjust Decisions

Few male and female villagers report that they desired to change a decision of influential villagers or of the village council during the past 12 months, but NSP is found to induce a small increase in this measure of latent activism. NSP does not affect the proportion of male and female villagers who believe that an individual, aggrieved by an unjust resolution of a dispute, should voice their complaint to an authority rather than doing nothing, but it does increase those who believe that the village council is the best authority to address the complaint. Even with these changes, however, the most commonly suggested authorities are the tribal eldership and government, indicating that NSP erodes, but does not displace, the central role of these entities in addressing villagers' problems.

[33] Eleven percent of female respondents in the control group and 31 percent of female respondents in the treatment group report attending at least one meeting in the past year.

Table 20. Impact of NSP on Activism and Recourse for Unjust Decisions

Indicator	Inst.	Obs.	Control	Treat.	OLS	Dist. F.E.	D-i-D
Respondent Desired to Change Decision of Influential Villagers or Village Council During Past 12 Months	MHH	4,664 *2,592*	3.0%	4.8%	+.018 (.007)***	+.018 (.007)***	+.011 $^{\delta}$ (.008)
	FHH (FI)	4,213 *3,826*	0.7%	1.4%	+.007 (.004)*	+.007 (.004)*	+.005 $^{\delta}$ (.004)
Respondent Recommends that Aggrieved Party Engage in Some Course of Action in the Event of Dissatisfaction with Dispute Outcome	MHH	4,663	95.1%	94.9%	-.002 (.011)	+.001 (.009)	-
	FHH	4,223	89.0%	88.8%	-.002 (.015)	-.004 (.013)	-
Respondent Recommends Village Headman as Best Source of Recourse for Aggrieved Party	MHH	4,663	19.2%	16.7%	-.024 (.021)	-.025 (.017)	-
	FHH	4,223	22.9%	21.9%	-.009 (.024)	-.009 (.018)	-
Respondent Recommends Member of Clergy as Best Source of Recourse for Aggrieved Party	MHH	4,663	5.1%	4.5%	-.006 (.009)	-.006 (.008)	-
	FHH	4,223	2.8%	1.7%	-.011 (.006)**	-.011 (.006)**	-
Respondent Recommends Commander as Best Source of Recourse for Aggrieved Party	MHH	4,663	0.0%	0.0%	+.000 (.000)	+.000 (.000)	-
	FHH	4,223	0.1%	0.0%	-.001 (.001)	-.001 (.001)	-
Respondent Recommends Village Council as Best Source of Recourse for Aggrieved Party	MHH	4,663	7.8%	18.3%	+.105 (.018)***	+.105 (.016)***	-
	FHH	4,223	2.7%	8.4%	+.056 (.011***	+.057 (.009)***	-
Respondent Recommends Tribal Elders as Best Source of Recourse for Aggrieved Party	MHH	4,663	35.6%	29.6%	-.059 (.025)**	-.056 (.017)***	-
	FHH	4,223	26.9%	24.9%	-.020 (.024)	-.022 (.021)	-
Respondent Recommends District, Provincial, or Central Government as Best Source of Recourse for Aggrieved Party	MHH	4,663	27.4%	25.7%	-.017 (.022)	-.017 (.020)	-
	FHH	4,223	33.4%	31.9%	-.015 (.024)	-.016 (.022)	-

Note: δ: Baseline question concerns whether or not respondent disagreed with a decision of the village leaders in the past year

Male and female household respondents were asked whether, in the past year, they had felt a desire to change the decision of an influential person in the village or of the village council. The proportions responding in the affirmative were relatively small (4 percent of male villagers and 1 percent of females), but NSP does appear to induce a statistically significant increase in the prevalence of such desires among both men and women.[34]

In order to assess further the impact of NSP on public goods provision and views toward village governance authorities, a hypothetical situation in which another villager was dissatisfied with the outcome of the resolution of a civil dispute was posed to male and female household respondents,

[34] Among those wanting to affect change, the selection or management of development projects was a particular area of concern among male respondents in treatment villages.

who were then asked to recommend a course of action to the aggrieved villager. Respondents indicated with high frequency—95 percent among male respondents and 89 percent among female respondents—that they believed the aggrieved party should seek redress, rather than doing nothing, a frequency that does not appear to be affected at all by NSP. No statistically significant differences between treatment and control groups were observed in the proportions of male and female respondents identifying the village headman, commander, or subnational or central government authorities as the best source of recourse. NSP does render male and female villagers more likely to recommend that the aggrieved villager approach the village council with his or her complaint, although the respective proportions in the treatment group lie below those of tribal elders or government. A statistically significant decrease appears in the proportion of male villagers advising the complainant to consult the tribal elders, although the corresponding difference among females is statistically insignificant. Female villagers are less likely, as a result of NSP, to identify members of the clergy as the most appropriate source of recourse, although the size of the difference is relatively small and is statistically insignificant in the data provided by male respondents.

Perceived Quality of Local Governance

NSP improves female villagers' perceptions of local governance, but does not affect perceptions among men. Specifically, no impact is apparent on the proportion of male villagers who report that village decision makers, council members, or village headman act in the interests of all villagers or in the proportion who believe that village leaders would distribute food aid to the neediest villagers. Female villagers, on the other hand, are more likely because of NSP to report that they believe village leaders act in the interest of all villagers and that village leaders are responsive to the needs of women. NSP has no impact on the level of satisfaction of villagers with the work of village leaders or on reports by female villagers of dissatisfaction with actions or decisions of village leaders, but does result in a small increase in the latter among male villagers.

Table 21. Impact of NSP on Perceived Quality of Local Governance

Indicator	Inst.	Obs.	Control	Treat.	OLS	Dist. F.E.	D-i-D
Respondent is Satisfied or Very Satisfied with Work of Village Leaders	MHH	4,215 *2,376*	85.9%	87.4%	+.015 (.019)	+.012 (.016)	+.019 (.022)
	FHH (FI)	4,127 *4,008*	74.0%	76.0%	+.020 (.023)	+.020 (.020)	+.017 (.023)
Respondent Perceives that Village Decision Makers Act in the Interests of All Villagers	MHH	4,619 *2,644*	78.4%	76.4%	-.020 (.020)	-.019 (.018)	-.031 (.022)
	FHH (FI)	3,996 *3,996*	39.9%	47.5%	+.076 (.027)***	+.077 (.023)***	+.079 (.026)***
Village Leaders Are Perceived as Responsive to Needs to Women	FHH (FI)	4,214 *4,214*	50.5%	56.0%	+.055 (.029)*	+.052 (.023)**	+.054 (.029)*
	FFG (FI)	421 *421*	55.1%	65.9%	+.108 (.047)**	+.110 (.040)***	+.106 (.046)**
Respondent Perceives that Village Headman Acts in the Interests of All Villagers	MHH	4,233 *2,405*	84.2%	84.9%	+.007 (.015)	+.009 (.014)	+.000 $^{\delta 1}$ (.018)
Respondent Perceives that Local Commanders Act in the Interests of All Villagers	MHH	3,991 *2,201*	39.9%	44.8%	+.050 (.026)*	+.052 (.021)**	+.052 (.030)*
Respondent Perceives that Members of the Village Assembly Act in the Interests of All Villagers	MHH	4,287 *2,403*	88.0%	87.8%	-.002 (.015)	+.000 (.013)	+.001 (.017)
Respondent is Dissatisfied with Action Taken or Decision Made by Village Leaders During Past 12 Months	MHH	4,665 *2,592*	3.4%	6.5%	+.031 (.009)***	+.031 (.009)***	+.029 (.011)***
	FHH (FI)	4,083 *3,702*	10.0%	10.3%	+.003 (.014)	+.003 (.014)	+.007 (.015)
Respondent Believes Village Leaders Would Distribute Food Aid to Most Needy	MHH	4,582 *2,620*	76.4%	75.3%	+.014 (.013)	+.011 (.010)	-.014 $^{\delta 2}$ (.021)

Note: δ: Baseline questions concern respondent's perceptions of actions of village elders (1), and whether respondent perceives that village leaders consider the needs of all villagers when making decisions (2)

There is no statistically significant impact of NSP on the proportion of male or female household respondents who indicated they were satisfied or very satisfied with the work of village leaders during the past 12 months. Overall, male villagers appear to be generally satisfied with their village leaders (87 percent claimed such), while female respondents were somewhat less likely to report such satisfaction (75 percent). No statistically significant differences were apparent between treatment and control groups (77 percent) in the extent to which male villagers believe village leaders act in the interest of all villagers. NSP renders female respondents significantly more likely, however, to report that their leaders act in the interests of all villagers, with the respective level rising from 40 percent in the control group to 48 percent in the treatment group. NSP is also found to increase the likelihood of female villagers believing that village leaders are very responsive to the needs of women in the village, with a statistically significant difference apparent between the level of 51 percent in the control group and 56 percent in the treatment group. In addition to the general question concerning village decision makers, male respondents were asked to provide information about how they perceive the actions of council members, village headmen, and local commanders. NSP has no impact on the tendency of male villagers to report that members of the village assembly (85 percent) or the headman (88 percent) act in the interests of all villagers, but local commanders do experience a boost due to NSP, with the proportion who view their actions as benevolent rising from 40 percent to 45 percent.

A statistically significant increase, attributable to NSP, is observed in the proportion of male household respondents who expressed dissatisfaction with a recent decision or action of the village leaders, although there is no such difference in reports by female respondents. Finally, there is no statistically significant impact of NSP on whether or not male respondents believe that village leaders would conduct distribution of food aid or selection for participation in a cash-for-work project in an equitable manner that benefits the neediest.[35]

V.3. Political Attitudes and Social Cohesion

NSP results in an improvement in how male villagers perceive government and nongovernment actors and increases connections between villages and select government and nongovernment institutions. The program does not make male villagers more willing to accept the authority of the central government or more knowledgeable about their government, but it does increase acceptance of using elections to select village headmen and of involving women in the process. Male, but not female, villagers appear slightly more open to female involvement in local governance as a result of NSP, but the program has no effect on explicit opinions of male or female villagers on female employment, education, or medical treatment. The impact of NSP on female socialization and mobility about the village is negligible, but it does increase inter-village connections among women. The program also produces a sharp increase in the ability of male and female villagers to identify well-respected women in the village and improves access to support groups for village women. No evidence exists to suggest that NSP has an effect on levels of village trust or solidarity, on the prevalence of village disputes or tribal feuds, or of the chance of attacks on a village, but the program does potentially stem out-migration from villages. Finally, while no evidence exists that NSP makes villagers happier, there is evidence that the program reduces the prevalence of unhappiness among village women.

Table 22 below presents a summary of estimated impacts of NSP on different categories of political attitudes and social cohesion by aggregating the indicators assigned to each category by z-scores, with coefficients, standard errors, and statistical significance levels (if appropriate) presented in the center of the cell, the number of constituent indicators on the right of the cell, and the sample size at the bottom of the cell.

[35] Across both treatment and control groups, 76 percent of respondents expressed the view that village leaders would select the neediest people to receive the benefits; 10 percent said they believed that friends of the village leaders would benefit; and 13 percent reported that members of village leaders' tribe or family would be most likely to benefit.

Table 22. Impacts of NSP on Aggregate Measures of Political Attitudes and Social Cohesion

Group	Category	Evidence of Impacts	Instrument			
			MHH	FHH	MFG	FFG
Government Legitimacy	Village Visits by Government, Civil Society, and Foreign Military	Strong	-	-	+.226 (.049)*** 6 *469*	-
	Perceptions of Government, Civil Society, and Foreign Military	Moderate	+.099 (.040)** 9 *4,660*	-	-	-
	Perceptions of State Authority among Villagers	None	+.021 (.027) 3 *4,666*	-.015 (.060) 1 *4,233*	-	-
	Attitudes toward Elections for Selecting Local and Regional Leaders	Moderate	+.086 (.043)** 2 *4,601*	+.098 (.047)** 2 *3,697*	-	-
Attitudes Toward Female Participation in Local Governance and Community Life	Attitudes toward Participation in Governance and Leader Selection	Weak	+.041 (.023)* 7 *4,666*	+.013 (.016) 7 *4,234*	-	-
	Attitudes toward Employment and Schooling and Respect of Women	Moderate	+.045 (.024)* 5 *4,666*	+.058 (.28)** 6 *4,231*	-	-
	Socialization and Mobility of Village Women	Strong	-	+.092 (.033)*** 5 *4,229*	+.273 (.079)*** 2 *424*	-
Social Cohesion	Levels of Interpersonal Trust among Villagers	Weak	+.015 (.028) 3 *4,666*	+.079 (.036)** 2 *4,221*	-	-
	Prevalence and Resolution Rate of Disputes and Feuds	None	-.007 (.029) 5 *4,664*	+.015 (.058) 2 *469*		
	Prevalence of Violent Attacks and Perceptions of Security	None	+.019 (.044) 3 *4,666*	+.076 (.061) 2 *4,0202*	-.018 (.101) 1 *468*	
	Out-Migration of Individuals and Households from Village	Weak	- - -	-.045 (.039) 2 *4,228*	-.208 (.096)** 1 *467*	-
	Happiness of Villagers with Their Lives	None	+.007 (.016) 2 *4,625*	+.060 (.043) 2 *4,217*	-	-

Notes: Dependent variable represents an aggregation, by z-scores, of indicators in respective category (indicators are inverted where appropriate); standard errors clustered by 304 clusters of villages; no district fixed effects or other control variables included in regressions; * statistically significant at 10 percent level; **statistically significant at 5 percent level; ***statistically significant at 1 percent level

The section is divided into three subsections, which describe the estimated impacts of NSP on government legitimacy, attitudes toward female participation in governance and community life, and social cohesion.

Government Legitimacy

NSP results in an improvement in how male villagers perceive a wide array of government and nongovernment actors, including the president of Afghanistan, provincial governor, district governor, central government officials, government judges, NGO workers, and even western soldiers. Despite having a more favorable view of these individuals and institutions, NSP does not render male villagers more willing to accept the authority of the central government over local crimes, does not increase knowledge among men or women of parliamentary representatives, and has only a small, if any, impact on attitudes toward government taxation of village income-earners. The program does appear to make men more supportive of holding elections to select village headmen, but has no impact on opinions concerning the selection of provincial governors. Finally, NSP is associated with a small increase in connections with central government officials and soldiers from the national police and army.

The following subsections discuss the impacts of NSP on village visits by government, civil society, and foreign military; perceptions of government, civil society, and foreign military; legitimacy of state governance; and attitudes toward elections.

Village Visits by Government, Civil Society, and Foreign Military

NSP causes a small increase in visits to villages by officials of the central government and representatives of the Afghan National Police or Army. The program, unsurprisingly, also causes a large increase in visits by NGO representatives. No impact is apparent on the tendency of district government officials, election workers, or foreign military soldiers to visit a village.

Table 23. Impact of NSP on Prevalence of Interactions with Government, Civil Society, and Foreign Military

Indicator	Inst.	Obs.	Control	Treat.	OLS	Dist. F.E.	D-i-D
Central Government Officials Have Visited Village in Past Year	MFG	469	5.6%	17.4%	+.088 (.027)***	+.086 (.026)***	-
District Government Officials Have Visited Village in Past Year	MFG	469	25.3%	31.3%	+.060 (.041)	+.058 (.037)	-
Afghan National Police or Afghan National Army Have Visited Village in Past Year	MFG	469	11.2%	17.4%	+.062 (0.33)*	+.058 (0.30)*	-
Persons Providing Information on National Elections Have Visited Village in Past Year	MFG	469	36.5%	37.7%	+.012 (.047)	+.013 (.040)	-
NGO Officials Have Visited Village in Past Year	MFG	469	32.2%	69.3%	+.371 (.044)***	+.0375 (.042)***	-
ISAF or US Army Soldiers Have Visited Village in Past Year	MFG	469	5.6%	3.8%	-.018 (0.20)	-0.18 (0.20)	-

Notes: *statistically significant at 10 percent level; **statistically significant at 5 percent level; ***statistically significant at 1 percent level; standard errors clustered by 304 clusters of villages.

Among villages assigned to the treatment group, 17 percent of male focus groups report that central government officials visited the village in the past year, compared to only 6 percent of male focus groups in control villages. The difference is statistically significant in both specifications. No statistically significant difference is apparent in the tendency of representatives of the district government to visit villages, which occurs in 28 percent of cases. A statistically significant difference between treatment and control groups exists, however, in visits by the Afghan National Police and

Afghan National Army, which occur in 11 percent of villages in the control group and 17 percent in the treatment group. Male focus groups in treatment and control groups report a similar frequency of visits by persons providing information about the 2009 presidential and provincial elections, with 37 percent of focus groups claiming that such a visit occurred in the past year. There is a sharp difference in reports of visits by NGO officials in the past year. In the treatment group, 69 percent of focus groups reported such a visit, compared to just 32 percent in the control group. Finally, no statistically significant difference is apparent with respect to the tendency of ISAF or US military soldiers to visit villagers. Across the sample, only 5 percent of villages reported that such a visit had occurred in the past year.

Perceptions of Government, Civil Society, and Foreign Military

NSP increases the number of male villagers who take a benevolent view of the actions of the president of Afghanistan, provincial governors, district administrators, members of parliament, central government officials, government judges, NGO workers, and even western soldiers. The only group for which NSP has no impact on perception is the Afghan National Police.

Table 24. Impact of NSP on Authority Identified by Male Respondents as Responsible for Mediating Disputes

Indicator	Inst.	Obs.	Control	Treat.	OLS	Dist. F.E.	D-i-D
President Acts for Benefit of All Villagers	MHH	4,490 *2,460*	75.8%	80.2%	+.044 (.022)**	+.042 (.016)***	+.052 (.024)**
Provincial Governor Acts for Benefit of All Villagers	MHH	4,148 *2,297*	64.6%	70.7%	+.061 (.028)**	+.057 (.019)***	+.058 (.031)*
District Administrator Acts for Benefit of All Villagers	MHH	4,414 *2,507*	58.6%	65.4%	+.068 (.028)**	+.065 (.019)***	+.067 (.030)**
Members of Parliament Act for Benefit of All Villagers	MHH	4,409 *2,432*	50.4%	55.7%	+.053 (.026)**	+.058 (.020)***	+.059 (.027)**
Central Gov't Officials Act for Benefit of All Villagers	MHH	4,256 *2,346*	63.9%	68.8%	+.050 (.026)*	+.047 (.019)**	+.052 (.028)*
Government Judges Act for Benefit of All Villagers	MHH	4,491 *2,561*	46.1%	51.2%	+.051 (.026)**	+.053 (.022)**	+.042 $^{\delta}$ (.030)
National Police Act for Benefit of All Villagers	MHH	4,556 *2,598*	70.6%	72.5%	+.019 (.023)	+.018 (.018)	+.030 $^{\delta}$ (.027)
NGO Workers Act for Benefit of All Villagers	MHH	4,472 *2,429*	64.1%	68.4%	+.043 (.023)*	+.046 (.018)**	+.054 (.028)*
ISAF / US Army Soldiers Act for Benefit of All Villagers	MHH	4,062 *2,342*	25.9%	29.0%	+.031 (.023)	+.036 (.019)*	+.059 $^{\delta}$ (.025)**

Note: δ: Baseline indicator represents an aggregate of respondent's perceptions of actions of president, provincial governor, district governor, members of parliament, central government officials, and NGO workers

NSP has a statistically significant impact on how male villagers perceive the actions of the president of Afghanistan, with men in the treatment group being 4 percentage points more likely to report that the actions of the president are consistent with the interests of all villagers, relative to 76 percent in the control group. A similar effect is found for provincial governors, who experience a 6 percentage point increase in perceived benevolence, relative to 65 percent in the control group. District administrators are also perceived more favorably because of NSP, with 65 percent of respondents in the treatment group reporting that they believe their administrator acts in the interest of all villagers, relative to 59 percent in the control group. Members of Parliament, central government officials, and government judges all experience the same result, with perceived benevolence of M.P.'s rising from

50 percent to 56 percent, government officials from 64 percent to 69 percent, and government judges from 46 percent to 51 percent. All of the aforementioned results attain conventional levels of statistical significance in basic OLS, fixed effects, and difference-in-difference specifications. The only government authority for which NSP does not affect perceptions is the Afghan National Police, the actions of which 72 percent of male household respondents view as benevolent. Of the nonstate actors about which questions were asked, NGO workers experienced a statistically significant improvement in perceptions among male villagers due to NSP, rising from 64 percent in the control group to 68 percent in the treatment group. There is also weak evidence that NSP causes men to view the actions of western militaries more favorably, although the difference is only significant once district fixed effects are included in the regression.

State Authority

NSP has limited impact on the legitimacy of government authority, with no evidence of an impact on opinions as to whether government authorities should investigate and punish local crimes or on knowledge by men or women of the names of parliamentary representatives, and only weak evidence on an impact on acceptance of income tax.

Table 25. Impact of NSP on State Authority

Indicator	Inst.	Obs.	Control	Treat.	OLS	Dist. F.E.	D-i-D
Government, Rather than Customary Authorities, Should Have Jurisdiction over Local Crimes	MHH	4,638	43.8%	44.2%	+.004 (.024)	+.000 (.019)	-
Income Earners Should Pay Taxation	MHH	4,562 *2,587*	91.0%	92.2%	+.012 (.012)	+.013 (.010)	+.028 (.014)*
Respondent is Able to Name At Least One Member of Provincial Delegation to Parliament	MHH	4,622 *2,495*	45.4%	45.9%	+.005 (.031)	+.004 (.018)	-.002 (.030)
	FHH	4,233	3.7%	3.5%	-.003 (.011)	-.001 (.010)	-

There is no statistically significant impact of NSP on the proportion of male villages who believe that the government system can resolve a village crime, such as theft, better than local leaders, with 44 percent of respondents in both treatment and control groups reporting such. When asked if individuals in the village earning income should pay tax on their income, 91 percent of respondents in the control group and 92 percent in the treatment group responded in the affirmative.[36] The difference is not statistically significant in the basic OLS or district fixed effects specifications, but is statistically significant in the differences-in-differences specification that incorporates data from the baseline survey. NSP does not affect the awareness of male and female respondents of the names of those who represent their province in the *Wolesi Jirga*, or lower house of the national parliament. Among male respondents, 46 percent could name at least one representative, while just 4 percent of female respondents were able to do so.

[36] Sixty-four percent of respondents in both groups identify the district government as the appropriate authority to receive tax revenue; 4 percent of respondents in the control group and 5 percent in the treatment group cite provincial government as the appropriate authority; and 25 percent in the control group and 24 percent in the treatment group believe that tax should be paid to the central government or a constituent ministry.

Attitudes toward Elections

NSP makes male villagers more likely to report that a secret ballot election should be used to choose the village headman, and there is weak evidence to suggest a similar effect with respect to female villagers. NSP has no impact on opinions concerning the selection of the provincial governor.

Table 26. Impact of NSP on Preferred Method of Selecting Village Headman and Provincial Governor

Indicator	Inst.	Obs.	Control	Treat.	OLS	Dist. F.E.	D-i-D
Respondent Believes Village Headman Should be Selected by Secret Ballot Election	MHH	4,577 2,628	28.6%	35.8%	+.072 (.024)***	+.075 (.020)***	+.069 δ (.027)**
	FHH (FI)	3,628 3,628	25.5%	29.3%	+.039 (.023)	+.037 (.020)*	+.038 δ (.023)
Respondent Believes Provincial Governor Should be Selected by Secret Ballot Election	MHH	4,378	74.7%	75.1%	+.004 (.023)	+.009 (.016)	-
	FHH	2,678	40.5%	44.8%	+.043 (.036)	+.033 (.021)	-

Note: δ: Baseline question concerns opinion of respondents about selection of village council members or village elders

In the control group, 29 percent of male household respondents and 26 percent of female household respondents report that they believe it is best to select the village headman by a secret ballot election open to men, women, or men and women, rather than being selected by villagers in a meeting or by village leaders, government authorities, or inheritance. In the treatment group, the respective proportions rise to 36 percent and 29 percent respectively. Differences between treatment and control groups in the responses of male household respondents are statistically significant in all three specifications, while those of female respondents are significant with district fixed effects, but not without. No statistically significant differences exist between treatment and control groups in the proportion of male household respondents (75 percent) or female household respondents (43 percent) who assert that the provincial governor should be selected by secret ballot election open to men, women, or men and women.

Attitudes toward Female Participation in Local Governance and Community Life

NSP produces a small change in the beliefs of male villagers concerning the involvement of women in village governance, making them slightly more open to the existence of women's councils and increasing the proportion that support the participation of village women in the selection of the village headman. There is no evidence, however, that NSP changes men's or women's views on female participation in elections generally or on women's views of female involvement in local governance. The impact of NSP on attitudes toward female participation in community life generally appears negligible, with no effects of the program identified on opinions about women working in government or NGOs, on girls' school attendance, or medical treatment of women by male doctors. However, the program sharply increases the ability of male and female villagers to identify well-respected women in the village, implying that NSP does raise the standing of at least some women. NSP also improves the availability of counseling services or support groups for village women, although the existence of such services or groups is relatively rare. NSP has no impact on the frequency of socialization among female villagers, although it does increase slightly the tendency of women to leave their compound without a male chaperone and increases the probability of village women holding meetings with women from other villages or with government officials.

The following subsections discuss the impacts of NSP on attitudes toward female participation in local governance and leader selection, attitudes toward female employment and respect accorded women, and female socialization and mobility.

Attitudes toward Female Participation in Local Governance and Leader Selection

NSP has a small impact on the views of male villagers concerning the most appropriate role for women to participate in local governance, but does not affect the views of female villagers. The program slightly reduces the likelihood of male villagers believing it is not appropriate for women to participate in local governance and increasing the number of those who state that there should be a women's council consulted on important issues, but produces no such effects for female villagers. Evidence of how NSP affects views on women's participation in the selection of leaders is conflicting. There is no impact of NSP on explicit views concerning women's participation in local and national elections, although there is some evidence that NSP increases men's openness to participation of village women in the selection of the village headman, although not with respect to the provincial governor. No impact of NSP is apparent on female villagers' views toward participation of women in the selection of local or regional leaders.

Table 27. Impact of NSP on Attitudes Toward Female Participation in Local Governance and Leader Selection

Indicator	Inst.	Obs.	Control	Treat.	OLS	Dist. F.E.	D-i-D
Women Should be Members of Village Council and Participate with Men on Equal Terms in Decision Making	MHH	4,666 *2,617*	17.5%	16.1%	-.014 (.021)	-.012 (.015)	-.014 (.023)
	FHH (FI)	4,234 *4.119*	25.4%	26.2%	+.008 (.022)	+.007 (.020)	+.015 (.022)
There Should be a Women's Council with which the Men's Council Should Consult on Important Village Issues	MHH	4,666 *2,593*	11.1%	14.0%	+.029 (.020)	+.031 (.017)*	+.014 (.023)
	FHH (FI)	4,234 *4,119*	18.5%	15.9%	-.026 (.018)	-.027 (.016)	-.021 (.019)
There Should be a Women's Council which Deals with Issues Pertaining to Women	MHH	4,666 *2,593*	68.9%	70.4%	+.015 (.030)	+.010 (.021)	+.015 (.035)
	FHH (FI)	4,234 *4,119*	71.9%	70.4%	-.015 (.023)	-.014 (.022)	-.016 (.023)
Women Should Have No Council and No Role in Village Decision Making	MHH	4,666 *2,578*	8.2%	6.4%	-.018 (.010)*	-.019 (.009)**	-.016 (.013)
	FHH (FI)	4,234 *4,119*	12.8%	11.3%	-.015 (.013)	-.013 (.012)	-.008 (.013)
Women Should Participate in Local and National Elections	MHH	4,652 *2,571*	93.4%	93.5%	+.001 (.010)	+.002 (.009)	+.003 $^{\delta}$ (.011)
	FHH (FI)	4,038 *3,928*	97.4%	97.6%	+.002 (.007)	+.003 (.007)	+.003 $^{\delta}$ (.007)
Women Should Participate in the Selection of the Village Headman	MHH	4,577 *2,542*	38.3%	44.3%	+.060 (.030)**	+.067 (.020)***	+.053 $^{\delta}$ (.034)
	FHH (FI)	3,628 *3,532*	34.7%	38.3%	+.036 (.028)	+.029 (.024)	+.024 $^{\delta}$ (.028)
Women Should Participate in the Selection of the Provincial Governor	MHH	4,378 *2,436*	63.2%	63.1%	-.001 (.028)	+.006 (.019)	-.008 $^{\delta}$ (.032)
	FHH (FI)	2,678 *2,615*	37.8%	40.9%	+.031 (.035)	+.021 (.021)	+.004 $^{\delta}$ (.035)

Note: δ: Baseline question addresses opinion of respondents about female participation in the village leadership

No statistically significant differences exist between treatment and control groups in the proportion of villagers who believe that women should be members of the primary village council and participate on an equal footing with men in village decision making, an arrangement supported by 17 percent of male villagers and 26 percent of female villagers. The difference in the proportion of male villagers who believe that there should be a women's council with which the (all-male) village council should consult before making decisions on important issues, at 11 percent and 15 percent respectively, is statistically significant, albeit only with the inclusion of district fixed effects. This particular arrangement is favored by 17 percent of female villagers, with a statistically insignificant difference between treatment and control groups. No statistically significant differences are apparent in the proportions reporting that there should be a women's council that considers issues pertaining to women, an arrangement that enjoys very high levels of support among both men (69 percent) and women (71 percent). NSP renders male villagers less likely to believe that women should have no role in village decision-making, reducing the respective proportion from 8 percent to 6 percent. No statistically significant differences exist with respect to the responses of female respondents; approximately 12 percent hold this view.

Enumerators posed a direct question to both male and female villagers about whether women should participate in local and national elections. Relatively high proportions of both male (93 percent) and female (98 percent) villagers responded in the affirmative, with no statistically significant differences between the treatment and control groups. Indirectly, respondents were also asked whether they support the involvement of women in the selection of the village headman and provincial governor. With respect to the selection of the village headman, 38 percent of male villagers in the control group and 44 percent in the treatment group indicated that they believe it was appropriate for village women to participate. The difference is statistically significant in the basic OLS and fixed effects specifications, but is not significant in the differences-in-differences specification. Among female respondents, 36 percent reported that they believed village women should be involved, with no statistically significant difference between treatment and control groups. With respect to the selection of the provincial governor, no impacts of NSP are identified on the openness of either male (63 percent) or female (39 percent) villagers to the involvement of women.

Attitudes toward Female Employment and Schooling and Respect Accorded Women

The impact of NSP on attitudes toward female participation in aspects of community life not related to governance and decision making appears negligible, although the program does appear to be somewhat successful in inducing the accordance of respect to a few women in the village. Specifically, NSP has no discernible impact on whether male villagers believe it is appropriate for women to work for the government or NGOs, but potentially does induce a small increase in the proportion of female villagers who believe it is appropriate for women to hold positions in NGOs. No impact of NSP is apparent on male and female beliefs about whether girls should attend school, or on the value that women place on births of females relative to males. NSP does, however, have a large, positive impact on whether there is a woman in the village who enjoys a high level of respect among both men and women, implying that NSP does have an effect on the standing of at least some women in the community.

Table 28. Impact of NSP on Attitudes Toward Female Emancipation and Respect Accorded Women

Indicator	Inst.	Obs.	Control	Treat.	OLS	Dist. F.E.	D-i-D
Respondent Believes it is Appropriate for Women to Work in Government	MHH	4,643	86.0%	87.2%	+.012 (.014)	+.013 (.013)	-
	FHH	4,205	91.4%	92.2%	+.008 (.012)	+.007 (.011)	-
Respondent Believes it is Appropriate for Women to Work with NGOs	MHH	4,643	67.7%	68.4%	+.007 (.029)	+.012 (.017)	-
	FHH	4,205	66.4%	70.6%	+.042 (.034)	+.032 (.018)*	-
Girls Should Be Permitted to Attend School	MHH	4,661 *2,642*	94.1%	93.6%	-.005 (.013)	-.006 (.013)	-.005 (.015)
	FHH (FFG)	4,220 *4,161*	95.8%	96.0%	+.002 (.009)	+.001 (.008)	+.002 (.009)
Female Family Member Could be Seen by Male Doctor if Female Nurse or Doctor Was Not Available	MHH	4,659 *2,647*	90.2%	90.1%	-.001 (.012)	-.001 (.012)	+.004 $^{\delta 1}$ (.015)
	FHH (FFG)	4,222 *4,152*	93.3%	93.6%	+.003 (.013)	+.001 (.010)	+.003 (.013)
Respondent Wishes to Have Equal Number of Boys and Girls or More Girls Than Boys	FHH	1,517	39.7%	42.1%	+.024 (.029)	+.025 (.025)	-
There is At Least One Woman in the Village Who is Well-Respected by Both Men and Women	MHH	4,656 *2,611*	32.3%	41.9%	+.096 (.023)***	+.092 (.017)***	+.093 $^{\delta 2}$ (.027)***
	FHH (FI)	4,225 *4,185*	29.6%	36.7%	+.071 (.028)**	+.070 (.020)***	+.068 $^{\delta 3}$ (.027)**

Notes: δ: Baseline question concerns availability of health workers to treat women in the village (2**),** opinions about female participation in the village leadership (2), and whether or not the opinions of influential women are taken into consideration in resolving village disputes (3)

Respondents in the treatment and control groups, both male (87 percent) and female (92 percent), are equally likely to believe that it is appropriate for women to hold positions in or work with the government. Furthermore, no statistically significant difference is observed between the proportion of male villagers who report that they believe it appropriate for women to work with NGOs (68 percent). The difference between treatment (71 percent) and control (66 percent) in the proportion of female villagers who support women working in NGOs is statistically significant, but only with the inclusion of district fixed effects.

There is no statistically significant impact of NSP on the proportion of male or female household respondents who believe it is correct for girls to attend school, with 94 percent of male respondents and 96 percent of female respondents responding in the affirmative. There is also no impact on the willingness of male villagers to allow a female family member to be seen by a male doctor if facing a serious illness and there was no female doctor or nurse available (90 percent), or the willingness of female villagers to be treated by a male doctor if they in a similar situation (93 percent). Furthermore, no difference is apparent in the proportion of female villagers who wish to have an equal number of boys and girls or more girls than boys (41 percent).

NSP does causes a large increase, statistically significant in all specifications, in the proportion of male villagers who report that there is at least one woman in the village who is respected by both men and women, with 32 percent in control villages reporting such compared to 42 percent in treatment villages. The same difference also presents itself in the responses of female villagers, with

30 percent in control villages and 37 percent in treatment villages reporting the existence of such a woman. As with male villagers, the difference is significant in all specifications.

Female Socialization and Mobility

NSP increases the occurrence of meetings between female villagers and women from other villagers and the district government and improves the availability of venues in which village women can discuss their problems, although the existence of such meetings and venues is relatively rare even in treatment villages. NSP appears to have no impact on the general extent of socialization between female villagers or on the frequency by which female villagers leave their compound, although the program does increase slightly the tendency of women to leave their compound without a male chaperone. There is no impact of NSP on women wearing a *chadori* (burqa).

Table 29. Impact of NSP on Female Socialization and Mobility

Indicator	Inst.	Obs.	Control	Treat.	OLS	Dist. F.E.	D-i-D
Village Women Held Meeting with Women from Other Villages in Past 12 Months	FFG	424	3.3%	10.4%	+.071 (.024)***	+.071 (.023)***	-
Village Women Held Meeting with District Government in Past 12 Months	FFG	424	0.5%	4.7%	+.042 (.015)***	+.042 (.015)***	-
Women in Village Have a Group or Someone to Go to Discuss or Solve their Problems	FHH	4,222	6.8%	14.0%	+.072 (.015)***	+.071 (.012)***	-
Respondent Socializes with Women Outside Her Household	FHH (FI)	4,221 *4,181*	73.1%	74.4%	+.013 (.022)	+.011 (.017)	+.013 (.022)
Number of Times Respondent Left Compound in Past Month	FHH (FI)	4,214 *3,870*	58.1 times	61.4 times	+0.095 $^{\lambda}$ (0.076)	+0.082 $^{\lambda}$ (0.061)	+0.082 $^{\lambda}$ (0.075)
Respondent Leaves Compound Alone or with Small Child	FHH (FI)	4,221 *4,174*	65.9%	69.4%	+.035 (.023)	+.034 (.018)*	+.037 (.023)
Respondent Never or Only Sometimes Wears *Chadori* (Burqa) When Outside Compound	FHH (FI)	4,221 *4,181*	76.4%	78.4%	+.022 (.027)	+.020 (.022)	+.025 (.025)

Note: λ: regression of logged values

Women in the treatment group are more likely than women in control villages to have held meetings with the women from other villages and meetings with representatives of the district government in the past year. In the control group, just 3 percent of focus groups reported that such meetings occurred with women from other villagers, and just 1 percent reported that they took place with representatives of the district government. In the treatment group, these proportions rose to 10 percent and 5 percent respectively. Female household respondents in the treatment group (14 percent) are slightly more than twice as likely as those in the control group (7 percent) to report that there is a group or individual that women in the village can go to discuss or solve their personal problems, a difference that is statistically significant in both specifications. However, there is no statistically significant difference in the proportion of female respondents who report that they socialize with women in the village other than those who are members of their family or household, with 74 percent of respondents in both groups responding in the affirmative. NSP does not affect the number of times that female villagers leave their compound, but women in treatment villages are 4 percentage points more likely to report that they regularly leave the household alone or with no chaperone other than a small child, although the difference is only significant with the inclusion of district fixed effects. No statistically significant difference between respondents in treatment and

control villages is apparent in the proportion of female household respondents who report that they never or only sometimes wear a *chadori* or burqa.

Social Cohesion

At this stage of program implementation, NSP has no impact on specific measures of community trust or solidarity or on the outbreak of village disputes or tribal feuds, although there is some evidence that the program may increase the probability of disputes being resolved. NSP does not appear to change the probability of a village suffering an attack by anti-government, government, or foreign forces or the extent to which security impinges on the lives of male villagers, but does slightly improve perceptions of the security situation among male villagers. There is some evidence that NSP reduces out-migration of households from the village, but no evidence that it stems out-migration of individuals from households that remain in the village. There is also no evidence that NSP changes whether or not female villagers want to have more children. Finally, while no evidence exists that NSP makes villagers happier, there is evidence that the program reduces the prevalence of unhappiness among village women.

The following subsections discuss the impacts of NSP on the level of trust and community solidarity, the prevalence and resolution of disputes and feuds, the prevalence of conflict and perceptions of safety and security, demographic change, and happiness.

Trust between Villagers

NSP does not have any impact on measures of community trust or solidarity, with no statistically significant impacts observed between treatment and control groups in how male and female villagers respond to questions concerning general benevolence among villagers, or about whether or not they would feel comfortable asking a fellow villager to collect money for them.

Table 30. Impact of NSP on Trust between Villagers

Indicator	Inst.	Obs.	Control	Treat.	OLS	Dist. F.E.	D-i-D
Respondent Believes Villagers Are Always Willing to Help Other Villagers	MHH	4,652 *2,576*	46.6%	49.4%	+.028 (.024)	+.026 (.019)	-.030 (.028)
Respondent Would Be Willing to Ask Someone from Outside Household to Collect Money for Them	MHH	4,658 *2,610*	80.0%	80.8%	+.008 (.016)	+.009 (.015)	-.010 (.019)
	FHH (FFG)	4,220 *4,151*	63.3%	67.0%	+.037 (.024)	+.036 (.023)	+.034 (.024)
Respondent Has Asked Someone from Outside Household to Collect Money from Them	MHH	4,659 *2,606*	36.0%	34.6%	-.014 (.021)	-.014 (.020)	-.017 (.025)
	FHH (FFG)	4,134 *4,017*	18.3%	20.5%	+.022 (.018)	+.022 (.017)	+.017 (.018)

There is no statistically significant difference between treatment and control groups in the proportion of male household respondents who report they believe people in their village are always willing to help others in the village outside of their household, to which 48 percent responded in the affirmative. To gauge the level of trust among villagers, male and female respondents were asked whether they would be willing to ask someone from outside of their household to collect money for them in the event that no one in their household would be able to travel and whether they had ever done this. Among male respondents, 80 percent indicated that they would feel comfortable in doing this and 35 percent indicated that they had done this at some time in the past. Among female

respondents, the corresponding figures are 65 percent and 19 percent. No statistically significant differences in the responses to either question were observed between treatment or control groups.

Disputes and Feuds

There is no evidence that NSP increases or decreases the chances of villagers engaging in disputes with others in the village or of tribal feuds developing. There is weak, but inconclusive, evidence that NSP improves the chance of disputes being resolved, although there is no such evidence with respect to tribal feuds.

Table 31. Impact of NSP on Disputes and Feuds

Indicator	Inst.	Obs.	Control	Treat.	OLS	Dist. F.E.	D-i-D
Respondent Engaged in Dispute with Villager During Past Year	MHH	4,660 2,578	5.6%	5.0%	-.006 (.008)	-.006 (.007)	-.014 $^{\delta 1}$ (.010)
Number of Disputes in Village in Past Year	MFG	469 *469*	3.70 disp.	3.14 disp.	-0.56 (0.96)	-0.57 (0.91)	-0.54 $^{\delta 1}$ (0.96)
Dispute that Occurred during Past Year has Been Resolved	MHH	245 50	52.3%	64.1%	+.118 (.069)*	+.094 (.063)	+.287 (.131)**
Proportion of Disputes Occurring Last Year Which Have Been Resolved	MFG	204 *204*	93.4%	93.2%	-.003 (.959)	-.005 (.034)	-0.54 $^{\delta 2}$ (0.96)
Tribal Feud (Intra-Village or Inter-Village) Occurred During Past Few Years	MHH (MFG)	4,658 *4,658*	6.7%	6.9%	+.002 (.014)	+.002 (.014)	+.002 $^{\delta 3}$ (.014)
Intra-Village Tribal Feud in Village Occurred During Past Few Years	MHH (MFG)	4,658 *4,658*	3.1%	4.4%	+.013 (.010)	+.013 (.009)	+.014 $^{\delta 3}$ (.010)
Tribal Feud is Resolved	MHH	309	37.7%	47.1%	+.094 (.100)	+.077 (.080)	-

Note: δ: Baseline question concerns incidence of dispute in village during past year (1), resolution status of most recent dispute (2), and whether a tribal feud presently exists (3)

No statistically significant difference exists between treatment and control groups in the propensity of male villagers to engage in a dispute with someone in the village during the past year, an outcome which occurs with 5 percent probability.[37] No statistically significant difference is observed with respect to the number of disputes involving villagers in the past year, as reported by male focus group participants. On average, villages appear to have had three disputes during the past year.[38] Among male respondents who reported they had engaged in a dispute, NSP potentially improves the propensity of resolving the dispute. The evidence is unclear, however, as the prevalence is low and the difference is statistically significant only without district fixed effects. The evidence of an effect on the efficacy of dispute resolution is undermined by data from the male focus group, which report that, on average, 93 percent of disputes from the previous 12 months have been resolved and yield no statistically significant differences in the resolution rate. NSP also does not appear to impact the propensity of male respondents to report that there is or has been a tribal feud, whether intra- or

[37] Of those that had engaged in disputes, a plurality involved land ownership (48 percent of treatment; 52 percent of control); followed by water and irrigation (26 percent of treatment; 18 percent of control); personal insult (9 percent of treatment; 11 percent of control); and theft (6 percent of treatment; 5 percent of control)

[38] Forty-one percent of villages in the control group and 47 percent in the treatment group reported that the villagers engaged in at least one dispute in the past year

inter-village, involving people in the village during the past few years.[39] Among male household respondents who reported that there was or had been a feud involving people in their village, NSP does not have a statistically identifiable impact on the chance of the feud being resolved.

Prevalence of Conflict and Perceptions of Security

NSP appears to have limited effects on the prevalence of conflict and perceptions of safety and security. No impact is apparent on reports of attacks on villagers or on reports of male villagers affected by insecurity. The program marginally increases reports of security improvements by male villagers, although no such effect is apparent for female villagers.

Table 32. Impact of NSP on Prevalence of Attacks and Indicators Relating to Security

Indicator	Inst.	Obs.	Control	Treat.	OLS	Dist. F.E.	D-i-D
Village Has Suffered Attack by Anti-Government, Government, or Foreign Forces During Past Year	MHH	4,661 *2,644*	3.7%	3.5%	-.002 (.013)	-.002 (.012)	-.006 δ (.014)
	MFG (MHH)	468 *468*	3.9%	4.3%	+.004 (.020)	+.030 (.019)	+.032 δ (.020)
Respondent Impacted by Insecurity in Village During Past Year	MHH	4,660 *2,645*	1.5%	1.9%	+.004 (.008)	+.004 (.007)	+.008 (.009)
Respondent Believes Security Has Improved in Past Two Years	MHH	4,661 *2,646*	61.8%	65.6%	+.038 (.032)	+.044 (.020)**	+.020 δ (.034)
Respondent Perceives Women Feel Safer in Past Two Years	FHH (MHH)	3,981 *3,981*	29.0%	32.9%	+.039 (.029)	+.038 (.025)	+.038 δ (.029)
Respondent Perceives Girls Feel Safer in Past Two Years	FHH (MHH)	4,020 *4,020*	29.4%	32.6%	+.032 (.028)	+.034 (.025)	+.031 δ (.028)

Note: δ: Baseline question concerns incidence of adverse impacts on household arising from conflict or insecurity during past year

There is no statistically significant difference between treatment and control groups in reports by male villagers or male focus group respondents of attacks on or in their village by anti-government, government, or foreign military forces during the past year, with 4 percent in both groups claiming attacks occurred.[40] There is also no statistically significant difference in the proportion of male villagers who report they have personally been impacted by insecurity during the past year. There is a statistically significant difference, however, in the proportion of male villagers who report an improvement in the security situation during the past 12 months, with 66 percent in the treatment group reporting such compared to 62 percent in the control group. The two statistically significant effects are only significant in the district fixed effects specification, however. Female villagers were asked about whether or not they believed women from the village feel more or less safe working for NGOs or the government or attending training courses compared to two years ago, as well as whether girls felt more or less safe traveling to and from school or when socializing with other girls. No statistically significant differences between treatment and control groups were observed with respect to either question.

[39] Feuds most frequently concerned land ownership (32 percent of treatment; 47 percent of control); or a death (33 percent of treatment; 16 percent of control)

[40] Of the 121 male respondents who reported that the village had been attacked in the past 12 months, 37 percent reported that nothing was damaged in the attack. Twenty-one percent reported that the attack resulted in death and/or injury of villagers; 18 percent claimed that one or more dwellings of villagers had been damaged; 12 percent noted that the dwelling of a village leader had been damaged; and 11 percent claimed a school had been damaged

Demographic Change

Mixed evidence exists of an impact of NSP on migration dynamics, with no effect being identified using household data, but a reduction in out-migration, attributable to NSP, observed in focus group data. NSP appears to have no impact on whether or not female villagers would like to have more children in the future.

Table 33. Impact of NSP on Out-Migration

Indicator	Inst.	Obs.	Control	Treat.	OLS	Dist. F.E.	D-i-D
Respondent Wishes to More Children in the Future	FHH	4,030	37.2%	39.0%	+.018 (.019)	+.015 (.018)	-
Member of Household Out-Migrated in Past 12 Months	FHH (MFG)	4,228 *3,979*	15.5%	13.6%	-.019 (.014)	-.018 (.013)	-.020 (.014)
Village Experienced Net Emigration of Households in Past 12 Months	MFG	467 *351*	30.7%	21.6%	-.091 (.042)**	-.086 (.039)**	-.081 (.049)*

There is no statistically significant difference between the treatment and control groups in the likelihood of female villagers reporting they would like to have more children in the future. Across the sample, 38 percent of respondents indicate that they would indeed like to have more children. Based on information provided by female household respondents, 15 percent of households experienced out-migration of a family member during the past year, with no statistically significant differences between treatment and control groups. However, a statistically significant impact of NSP on out-migration appears in the responses of male focus groups, with those in the treatment group 9 percentage points less likely to report out-migration of households from the village, relative to 31 percent in the control group. The difference is statistically significant in both specifications.

Happiness

NSP has no impact on levels of happiness or unhappiness among male villagers, but does appear to reduce, by 2 percentage points, reports of unhappiness among female villagers.

Table 34. Impact of NSP on Happiness

Indicator	Inst.	Obs.	Contr.	Treat.	OLS	Dist. F.E.	D-i-D
Respondent Is Happy or Very Happy With Life	MHH	4,625 *2,625*	81.9%	82.2%	+.003 (.018)	+.002 (.013)	+.015 (.022)
	FHH (FI)	4,217 *4,177*	74.4%	76.4%	+.020 (.022)	+.016 (.016)	+.019 (.022)
Respondent Is Unhappy or Very Unhappy With Life	MHH	4,625 *2,625*	7.8%	7.9%	+.001 (.013)	+.003 (.009)	-.001 (.015)
	FHH (FI)	4,217 *4,177*	8.5%	6.6%	-.019 (.011)*	-.017 (.010)*	-.018 (.011)

No statistically significantly differences between treatment and control groups exist with respect to the level of happiness reported by male villagers, regardless of whether this is analyzed through comparisons in the proportion reporting they are either very happy or happy with their life or in the proportions reporting they are unhappy or very unhappy with their life. Across the sample, 82 percent of male respondents report the former and 8 percent report the latter. There is no statistically significant difference across treatment and control groups in the proportion of female household respondents who report they are happy or very happy, which accounts for 75 percent of

the sample. A difference, statistically significant in both basic OLS and fixed effects specifications, exists, however, with respect to reports of unhappiness or extreme unhappiness among women, which falls from 9 percent in the control group to 7 percent in the treatment group.

V.4. Access to Utilities, Infrastructure, and Services

The impact of NSP on utilities, infrastructure, and services is mixed. There is a strong positive impact of drinking water projects on the use of protected outlets for drinking water and on the availability of safe drinking water, while the limited evidence available for the impacts of electricity projects is suggestive of strong impacts on connectivity and usage. However, few impacts of infrastructure projects appear with respect to transportation and mobility or irrigation, although further data will be required to assess this more conclusively. Regarding access to medical care and schooling, the program's impacts are difficult to disentangle: women's access to professional medical services appears to be slightly improved by NSP, although there is no evidence of an effect for villagers generally. Evidence suggests that NSP may increase girls' school attendance rates, although this may be due in part to stochastic variation, unrelated to NSP, between the control and treated villages. No evidence exists that NSP increase boys' attendance rates.

Table 35. Impacts of NSP on Aggregate Measures of Access to Utilities, Infrastructure, and Services

Group	Category	Evidence of Impacts	Instrument			
			MHH	FHH	MFG	FFG
Utilities	Drinking Water	Moderate	+.128 (.109) *490* 2	+.299 (.102)*** *453* 4	-	-
	Electricity	None	-.117 (.093) *76* 2	-	-	-
Infrastructure	Transportation and Mobility	None	-.067 (.097) *718* 2	+.030 (.076) *698* 2	+.193 (.118) *72* 4	-
	Irrigation	None	+.266 (.174) *410* 1	-	+.087 (.279) *53* 1	-
Reception	Access to Medical Care	Weak	+.012 (.033) *4,654* 3	+.061 (.032)* *4,179* 4	-	-
	School Attendance	Weak	+.036 (.068) *4,660* 1	+.142 (.080)* *2,117* 1	-	-

Notes: Dependent variable represents an aggregation, by z-scores, of indicators in respective category (indicators are inverted where appropriate); standard errors clustered by 304 clusters of villages; no district fixed effects or other control variables included in regressions; *statistically significant at 10 percent level; **statistically significant at 5 percent level; ***statistically significant at 1 percent level

This section is distinct from the others in that the subsections on utilities and infrastructure for livelihoods presents results for a restricted sample, as well as for the full sample of treatment and control respondents. For each of the four areas included in these two subsections, the restricted sample consists of a treatment group composed of respondents residing in villages with completed projects specific to the area: drinking water projects for drinking water; electricity projects for

electricity; roads for transportation and mobility; and irrigation projects for irrigation.[41] The respective control groups consist of respondents residing in villages that were matched to these specific treatment villages prior to the randomization. The restricted sample specification enables an estimation of the impacts of specific project types on the key outcome indicators for the area, while the full sample specification enables an estimation of the overall impact of the program and for any impacts that may operate outside of channels specific to the individual projects.

The section is divided into three subsections, which describe the estimated impacts of NSP on utilities, infrastructure for livelihoods, and social services.

Utilities

NSP appears to have a positive impact on access to clean drinking water and electricity. NSP increases utilization of protected outlets for drinking water and appears to improve the availability of safe drinking water. NSP-funded drinking water projects increase usage of protected sources by 20 percentage points, while the program overall increases usage by 7 percentage points. Drinking water projects reduce the prevalence of unsafe and unavailable drinking water from the main source by 20 and 16 percentage points respectively, while the program reduces the prevalence of unsafe drinking water by 5 percentage points, but has an unclear impact on the unavailability of drinking water. There is no impact of NSP or water projects on the amount of time that households spend collecting water. The small number of completed projects limits estimation of the impact of NSP electricity projects, but available evidence suggests large positive impacts on connectivity, usage, and the perception of improvement of access. As very few electricity projects were complete at the time of the survey, no impacts of NSP generally on electricity-related outcomes were apparent.

Drinking Water

Clear evidence exists that NSP causes an increase in the usage of protected outlets to source drinking water. The effect is particularly strong within those villages that have completed drinking water projects, in which usage of protected outlets is over 20 percentage points higher than in control villages. Sizeable reductions are also apparent in reports of water from the main source being unsafe for drinking or unavailable at some point in the past year, with NSP-funded drinking water projects inducing reductions of 20 and 16 percentage points respectively. No impact of NSP or NSP-funded drinking water projects are discerned on the amount of time that households report spending each week in the collection of water.

Table 36 presents a summary of the estimated impacts of complete NSP-funded drinking water projects (restricted sample) and NSP generally (full sample) on indicators related to access to clean drinking water.[42]

[41] Information on the existence of different project types and completion status were obtained from male focus group participants. Due to small sample sizes, district fixed effects estimation was not performed on the restricted sample. No restricted sample specification is presented for the social services subsection, as the sample of treatment villages did not contain any NSP-funded projects targeting health or education.

[42] For each of the two samples, the table specifies the respective instrument (*instr.*), number of observations (*ob.* / *obs.*), and mean level for the control (*ctrl.*) and treatment (*trmt.*) groups. For the restricted sample specifications, point estimates, standard errors, and significance levels are presented for basic OLS using only first follow-up survey data (*OLS*) and difference-in-difference (*D-i-D*) estimates using both baseline and first follow-up survey data. The full sample specifications also include regressions using first follow-up survey data with controls for district fixed effects (*F.E.*). In the event that a difference-in-difference specification employs a sample different from that used for other specifications, the number of observations for the specification for basic OLS and district fixed-

Table 36. Impact of NSP on Access to Clean Drinking Water

Indicator	Instr.	Restricted Sample					Full Sample					
		Ob.	Ctrl.	Trmt.	OLS	D-i-D	Obs.	Ctrl.	Trmt.	OLS	F.E.	D-i-D
Drinking Water is Sourced Primarily from Protected Outlet	MHH	477 *454*	36.0%	59.2%	+.232 (.091)**	+.351 (.095)***	4,640 *2,638*	30.7%	37.9%	+.066 (.028)**	+.072 (.025)*	+.061 (.035)*
	FHH *MHH*	453 *432*	40.8%	62.7%	+.219 (.087)**	+.225 (.113)*	4,228 *2,366*	37.2%	41.3%	+.052 (.029)	+.041 (.038)	+.044 (.037)
Water Was Unsafe During Past Year	FHH *MHH*	450 *426*	50.7%	30.7%	-.200 (.084)**	-.220 (.106)**	4,196 *2,347*	39.0%	34.3%	-.047 (.028)*	-.051 (.025)**	-.042 $^{\delta}$ (.039)
Water Was Unavailable During Past Year	FHH *MHH*	450 *426*	41.8%	27.1%	-.147 (.076)*	-.259 (.089)**	4,196 *2,347*	47.1%	41.9%	-.052 (.034)	-.054 (.027)*	+.054 $^{\delta}$ (.032)*
Estimated Hours Spent per Week by Household Collecting Water	MHH	487 *343*	10.75 hrs.	9.99 hrs.	-0.76 (2.48)	+0.62 (2.01)	4,633 *1,833*	10.03 hrs.	10.29 hrs.	+0.26 (0.64)	+0.26 (0.56)	-0.09 (0.76)
	FHH *MHH*	451 *277*	12.96 hrs.	11.62 hrs.	-1.35 (2.46)	-3.14 (3.31)	4,205 *1,665*	14.13 hrs.	14.50 hrs.	+0.37 (1.02)	+0.27 (0.95)	-0.93 (1.85)

Notes: *statistically significant at 10 percent level; **statistically significant at 5 percent level; ***statistically significant at 1 percent level; standard errors clustered by village cluster; δ: Baseline indicator addresses whether drinking water is sourced from protected outlet

Statistically significant differences between treatment and control groups are apparent with respect to the usage of protected sources for drinking water, both in the information provided by male and female household respondents and in the restricted and full samples.[43] In the restricted sample, male and female household respondents in villages with completed drinking water projects are more than 20 percentage points more likely to source drinking water from a protected outlet, as compared to respondents in matched control villages. In the treatment group for the full sample—which includes villages with completed, incomplete, and no implemented drinking water projects—38 percent of male respondents and 41 percent of female respondents state that their water comes from a protected source, compared to 31 percent and 37 percent respectively in the control group. Differences between treatment and control groups for the full sample of male household respondents are statistically significant in all three specifications, while those for female household respondents are statistically significant in the basic OLS specification, but not in the fixed effects specification.

Female respondents in the treatment group are less likely than respondents in the control group to report that water was unsafe or unavailable at some point in the previous year, regardless of whether or not the sample is restricted to villages with completed drinking water projects and their counterpart controls. Within the restricted sample, 51 percent of respondents in control villages

effects specifications appears in the upper half of the cell, while the number of observations for the difference-in-differences cell is in the bottom half of the cell. Different background colors are used in the indicator column to denote different data sources. Blue is used for indicators employing data from the male head-of-household questionnaire (MHH), purple is used for indicators employing data from the female head-of-household questionnaire (FHH), aqua is used for indicators employing data from the male focus group questionnaire (MFG), and orange is used for indicators employing data from the female focus group questionnaire (FFG). Dark blue is used to denote indicators for which more than one indicator is used. Light shades and normal text indicate that none of the specifications are statistically significant, while deep shades and bolded text indicate that at least one of the specifications is statistically significant.

[43] Protected sources usually consist of deep or covered wells, while unprotected sources usually are open wells, streams, or *kariz*

reported water was unsafe during the past year and 43 percent reported that it was unavailable, whereas only 31 percent in the treatment group report the former and only 28 percent report the latter. Both sets of differences are statistically significant. Differences between control and treatment groups are also statistically significant across the full sample, although, unsurprisingly, the magnitudes of the corresponding effects are smaller. In the full-sample control group, 39 percent reported water was unsafe at some point in the past year and 47 percent reported it was unavailable. In comparison, female respondents in the full-sample treatment group reported levels of 34 percent and 42 percent respectively. Differences with respect to the existence of unsafe water are statistically significant in both specifications, while those with respect to the unavailability of water are statistically significant only when district fixed effects are included in the regression.

No statistically significant differences are observed between treatment and control groups, in either the restricted or full samples, in the amount of time that male and female respondents report that the household spends in collecting water each week. In the full sample, male household respondents estimate that members of the household spend approximately 10 hours each week collecting water, while female household respondents estimate that water collection consumes 14 hours each week.

Electricity

NSP generally does not appear to have a statistically significant impact on the access of households to electricity, duration of usage among users, or on perceptions of change in electricity access. The relatively limited number of treatment villages that had completed NSP-funded electricity projects at the time of the first follow-up survey restricts the power of analysis of the impacts of such projects. Comparisons between this small number of households and households in counterpart control villages, however, reveal evidence of strong impacts on electricity usage, duration of usage, and reports of improved access to electricity once electricity projects are completed.

Table 37. Impact of NSP on Access to Electricity

Indicator	Instr.	Restricted Sample					Full Sample					
		Ob.	Ctrl.	Trmt.	OLS	D-i-D	Obs.	Ctrl.	Trmt.	OLS	F.E.	D-i-D
Household Used Electricity in Past Year	MHH	76	13.9%	65.0%	+.511 (.213)**	-	4,662 *2,662*	31.8%	34.1%	+.023 (.036)	+.028 (.028)	+.004 (.036)
Duration of Electricity Usage in Past Month Among Users	MHH	29	114.0 hrs.	131.0 hrs.	+17.0 (17.7)	-	806 *782*	206.2 hrs.	174.3 hrs.	-31.9 (24.9)	+1.9 (15.7)	-18.7 (20.2)
Respondent Perceives that Access to Electricity Improved Past Year	MHH	76	2.8%	50.0%	+.472 (0.220)*	-	4,654 *2,607*	14.9%	16.2%	+.013 (.025)	+.017 (.021)	+.013 (.027)

Note: differences-in-differences analysis could not be conducted on the restricted sample due to a lack of variation in baseline indicators

Within the restricted sample of villages that had completed NSP-funded electricity projects and their counterpart controls,[44] 65 percent of male household respondents in the treatment group and just 14 percent of respondents in the control group reported that their household had used electricity in the past year. Across the full sample, no statistically significant differences exist between respondents in the treatment and control groups in usage of electricity.

[44] Only four villages across the treatment group had completed electricity projects at the time of the first follow-up survey, which constrained the size of the restricted sample to 76 male household respondents

Electricity users in the treatment villages with completed NSP-funded electricity projects report using an average of 79 hours of electricity in the past week. This compares to just 16 hours among electricity users in counterpart control villages. No statistically significant differences are apparent among electricity users in the treatment and control groups in the full sample.

Half of male villagers in treatment villages with completed NSP-funded electricity projects believe that the access of their household to electricity has improved in the past year, whereas only 3 percent of respondents in the control group expressed the same opinion. No statistically significant differences were observed between treatment and control groups across the full sample, with 16 percent of respondents reporting such an improvement.

Infrastructure

The impact of NSP on local infrastructure appears negligible. No impacts of either NSP-funded roads projects or NSP generally are apparent regarding the time it takes male villagers to reach the district center or on the number of visits to the district center undertaken by male or female villagers. Evidence of the impact of the program on the chance of female villagers visiting neighboring villages is inconclusive. No impact of NSP or irrigation projects on irrigation outcomes is evident.

Transportation and Mobility

No statistically significant impacts of NSP are apparent—either in the restricted sample of villages with completed road projects and counterpart control villages, or in the full sample of treatment and control villages—on the amount of time that male villagers estimate it takes them to travel to the district center. In the full sample, the average amount of time reported by male household respondents is 127 minutes, while respondents in the restricted sample report that it takes them 100 minutes.

Table 38. Impact of NSP on Transportation and Mobility

Indicator		Restricted Sample					Full Sample					
		Ob.	Ctrl.	Trmt.	OLS	D-i-D	Obs.	Ctrl.	Trmt.	OLS	F.E.	D-i-D
Road Connecting Village Was Useable During All of Past Year	MFG	72 *72*	19.4%	16.7%	-.028 (.087)	-.068 (.074)	466 *461*	21.1%	24.8%	+.037 (.044)	+.028 (.034)	+.023 (.039)
Number of Trips Between Village and District Center	MFG	72 *72*	4.24 trips	5.26 trips	+1.02 (2.63)	+0.64 $^{\delta}$ (2.53)	467 *462*	3.25 trips	4.29 trips	+1.04 (0.93)	+0.85 (0.72)	+0.89 $^{\delta}$ (0.95)
Duration of Journey to District Center $^{\omega}$	MHH (MFG)	713 *713*	96.5 min.	97.7 min.	+.130 $^{\lambda}$ (.207)	+.187 $^{\lambda\delta}$ (.197)	4,644 *4,594*	123 min.	126 min.	+.008 $^{\lambda}$ (.080)	+.009 $^{\lambda}$ (.064)	+.020 $^{\lambda\delta}$ (.077)
	MFG	72 *72*	113 min.	147 min.	+.047 $^{\lambda}$ (.262)	+.119 $^{\lambda\delta}$ (.250)	448 *443*	155 min.	181 min.	+.067 $^{\lambda}$ (.094)	+.074 $^{\lambda}$ (.083)	+0.75 $^{\lambda\delta}$ (0.93)
Respondent Visited Neighboring Village in Past Year	FHH (MFG)	698 *698*	33.8%	34.3%	+.006 (.052)	+.006 $^{\delta}$ (.052)	4,234 *4,185*	37.8%	41.8%	+.040 (.027)	+.041 (.023)*	+.036 $^{\delta}$ (.027)*
Visits to District Center in Past Month	MHH (MFG)	715 *715*	4.18 trips	4.34 trips	+0.16 (0.94)	+0.17 $^{\delta}$ (0.94)	4,647 *4,597*	5.15 trips	5.35 trips	+0.20 (055)	+0.11 (.45)	+0.13 $^{\delta}$ (.53)
	FHH (MFG)	697 *697*	0.69 trips	0.74 trips	+0.05 (0.13)	+0.05 $^{\delta}$ (0.14)	4,227 *4,178*	0.59 trips	0.65 trips	+0.06 (0.07)	+0.06 (0.06)	+0.07 $^{\delta}$ (0.07)
Quality of Road to Village has Improved in Past Three Years	MFG	72 *72*	36.1%	69.4%	+.333 (.112)***	+.330 $^{\delta}$ (.114)***	467 *462*	33.5%	43.6%	+.101 (.047)**	+.099 (.042)**	+.101 $^{\delta}$ (.048)**

Notes: ω: Data is *winsorized* to remove outlying values occupying 1 percent of either tail; δ: Baseline indicator addresses whether road connecting village was useable during all of past year; λ: Regression of logged values

Completed NSP-funded road projects appear to have no impact on female mobility as measured by whether or not female respondents had visited a neighboring village in the past year, with no statistically significant differences between the control and treatment groups. A statistically significant impact is identified across the full sample, although only once district fixed effects were incorporated into the regression. Although the evidence is weak, this indicates that NSP generally, rather than NSP-funded road projects, may have a role in increasing women's mobility. With respect to the number of visits made by male and female villagers to the district center during the past month, no statistically significant differences between treatment and control groups are apparent, regardless of whether the sample was restricted to villages with completed road projects and counterpart controls or is unrestricted.

Irrigation

NSP-funded irrigation projects, as well as NSP generally, have no impact on the propensity of male villagers to report that their crops received sufficient irrigation in the past year.

Table 39. Impact of NSP on Irrigation

Indicator		Restricted Sample				Full Sample					
		Ob.	Ctrl.	Trmt.	OLS	Obs.	Ctrl.	Trmt.	OLS	F.E.	D-i-D
Crops Receive Sufficient Irrigation	MHH	410	65.3%	76.6%	+.113 (.074)	3,266	74.6%	77.6%	+.031 (.031)	+.034 (.023)	-
	MFG	53	64.0%	67.9%	+.039 (.124)	456	71.8%	73.8%	+.020 (.045)	+.030 (.034)	-

Male household respondents in the restricted sample of villages with completed irrigation projects are no more likely than counterparts in control villages to report that their crops received sufficient irrigation in the past year, with 82 percent of respondents in the restricted sample reporting such. In the full sample, 76 percent of respondents reported that their crops received sufficient irrigation in the past year, with no statistically significant difference between treatment and control groups.

Services

Evidence available on the impact of NSP on access to health care and education does not present a clear picture. No effects of NSP are apparent on the likelihood of a qualified medical professional providing treatment to villagers or of treatment occurring at a medical facility, although slight increases in both of these outcomes, attributable to NSP, appear to result with respect to women. However, NSP decreases slightly the proportion of births attended to by a qualified professional, and has no effect on perceptions of access to medical care. NSP has no impact on boys' enrollment in school. Evidence on the effect of NSP on girls' education is inconclusive, with some specifications pointing to a positive impact, but others suggesting a negligible impact.

Access to Medical Care

The impact of NSP on access to medical care is relatively weak, although female villagers do appear to experience some slight changes in the nature of general and natal care. Although no impact is observed on the provider or location of treatment provided to family members generally, female household members are slightly more likely, as a result of NSP, to have an illness or injury treated by a qualified medical professional and at an appropriate medical facility. This finding is contradicted somewhat, however, by the observation that NSP causes a slight reduction in attendance of births by qualified medical professionals. Overall, NSP does not appear to have any impact on male and female villagers' perceptions of changes in access to medical care.

Table 40. Impact of NSP on Access to Medical Care

Indicator	Inst.	Obs.	Control	Treat.	OLS	Dist. F.E.	D-i-D
Most Recent Illness or Injury Was Treated by Qualified Professional	MHH	3,118 *1,829*	99.2%	99.4%	+.002 (.003)	+.002 (.003)	+.001 $^{\delta 1}$ (.004)
Most Recent Female Illness or Injury Was Treated by Qualified Professional	FHH	2,364 *2,364*	98.1%	99.3%	+.012 (.005)**	+.011 (.005)**	+.012 $^{\delta 1}$ (.005)**
Most Recent Illness or Injury Was Treated at a Medical Facility	MHH	3,129	92.5%	93.9%	+.014 (.013)	+.015 (.013)	+.008 $^{\delta 2}$ (.007)
Most Recent Female Illness or Injury Was Treated at a Medical Facility	FHH	2,397 2,397	89.8%	92.9%	+.031 (.017)*	+.030 (.014)**	+.029 $^{\delta 2}$ (.017)*
Recent Birth Attended by a Qualified Medical Professional	FHH	1,737 1,737	15.4%	11.9%	-.035 (.021)*	-.032 (.018)**	-.036 $^{\delta 2}$ (.021)*
Respondent Perceives that Access of Household Members to Medical Care Improved During Past Year	MHH	4,647 2,649	29.0%	31.5%	+.025 (.023)	+.027 (.018)	+.004 (.025)
Respondent Perceives that Access of Female Household Members to Medical Care Improved During Past Year	FHH	4,083	24.4%	26.9%	+.025 (.023)	+.023 (.019)	-

Note: δ: Baseline indicator addresses whether the common source of treatment is by a medical professional (1) or at a medical facility (2)

Responses provided by both male and female interviewees indicate that it is common for qualified professionals to provide medical treatment to villagers. Almost all male and female household

respondents reported that doctors, nurses, or community health workers attended to the latest affliction affecting household members in the past 30 days, regardless of whether the ill or injured person was male or female. A numerically slight, but statistically significant, difference exists between treatment and control groups in the proportion of female respondents reporting that a qualified professional provided the most treatment administered to a female household member, indicating that NSP has a small positive impact on the access of women to the official health care system.

According to both male and female respondents, treatment of illness and injuries is commonly administered in medical facilities or residences of medical professionals. No significant difference between treatment and control groups exists in the likelihood of male respondents reporting that diagnosis or treatment occurred in an appropriate facility. Female respondents in treatment villages are, however, more likely to report that the most recent illness suffered by a female family member was treated in a proper medical facility, indicating again that NSP has a small but positive impact on women's access to healthcare. Curiously, though, NSP does appear to induce a decrease in the proportion of births attended by a qualified medical professional, with 15 percent of mothers in the treatment group and 12 percent reporting that a doctor, nurse, or official midwife attended to their most recent birth.

NSP has no statistically significant impact on the perception of changes in access to health care, either among male or female responses. Among male respondents, 30 percent report that they believe the household's access to medical care had improved in the past year. Among female respondents, 25 percent report that they believe that access to medical care for women in the household had improved in the past year.

School Attendance

There is some evidence that NSP may increase girls' school attendance, although the difference between treatment and control groups may be due to pre-existing differences. No statistically significant impact of NSP is observed on boys' school attendance.

Table 41. Impact of NSP on School Attendance of Boys and Girls

Indicator	Inst.	Obs.	Control	Treat.	OLS	Dist. F.E.	D-i-D
Proportion of Boys Aged Between 7 and 14 Years Who Attend School	MHH	2,481 *1,484*	78.1%	81.1%	+.030 (.026)	+.019 (.026)	+.041 $^{\delta 1}$ (.027)
Proportion of Girls Aged Between 7 and 14 Years Who Attend School	FHH *MHH*	2,112 *1,246*	49.5%	56.5%	+.070 (.026)*	+.071 (.026)**	+.060 $^{\delta 2}$ (.041)

Note: δ: Baseline indicators address whether school attendance in respondents' village has increased in past year (1) and whether girls In the village are allowed to attend school (2)

No statistically significant difference exists in the proportion of boys residing in the household of male household respondents and aged between 7 and 14 years that currently attend school. Across both treatment and control groups, 80 percent of boys resident in the surveyed households attend school.

In treatment villages, female household respondents report that 57 percent of girls aged between 7 and 14 residing in the household currently attend school, relative to 50 percent in the control

villages.[45] The difference is statistically significant in the basic OLS and district fixed effects data that do not incorporate baseline data, but the difference is not robust to the inclusion of a binary control variable indicating whether or not there was a girls' school or a mixed boys' and girls' school at the time of the baseline survey.

V.5. Economic Activity

NSP makes both male and female villagers more likely to report that their household's economic situation has improved in the past year and that the economic situation of the village will improve in the coming year. Despite these clear changes in perceptions, there is little evidence that NSP has any effect, at this interim stage, on objective measures of household economic activity, with no evidence of any impact on income or income regularity, levels or composition of consumption, sufficiency of food sources, household assets, or on borrowing behavior. The program has no impact on land area under cultivation or harvest sizes. Although there is weak evidence that NSP increases the probability of farmers selling produce, there is no evidence of a similar impact on sales of livestock, animal products, or handicrafts. Revenues accruing from sales of produce, livestock, or animal products are unaffected by the program, but NSP may induce a slight increase in revenues from handicraft sales. Finally, NSP is associated with an increase in the involvement of women in income-generating activities, but does not affect female asset ownership, the extent to which women are able to control income they earn or assets they own, or the involvement of women in household decisions.

[45] Among female respondents who reported that at least one girl aged between 7 and 14 years resides in the household and does not attend school, the most frequent explanations given to account for such were the absence of a school in the village or area (40 percent in treatment; 44 percent in control); the lack of a girls' school (24 percent in treatment; 19 percent in control); and housework or chores (5 percent in treatment; 8 percent in control). No significant differences in responses were observed between treatment and control groups.

Table 42. Impacts of NSP on Aggregate Measures of Economic Activity

Group	Category	Evidence of Impacts	Instrument			
			MHH	FHH	MFG	FFG
Perceptions of Economic Change		Strong	+.102 (.032)*** 2 *4,665*	+.112 (.046)** 2	-	-
Household Stocks and Flows	Income	None	+.053 (.037) 2 *4,644*	-	-	-
	Consumption	None	+.006 (.024) 2 *4,315*	-.013 (.061) 1 *4,194*	-	-
	Household Assets	None	+.011 (.034) 2 *4,666*	-	-	-
	Debt and Borrowing	None	-.020 (.042) 3 *4,666*	-	-	-
Production	Agricultural Production	None	+.007 (.033) 5 *3,287*	-	-	-
	Non-Agricultural Production	None	+.000 (.037) 2 *4,657*	+.041 (.031 2 *4,215*	-	-
Engagement of Women	Economic Activity	Weak	-	+.051 (.029)* 4 *4,229*	-	-
	Household Decision Making	None	-	-.025 (.050) 2 *4,228*	-	-

Notes: Dependent variable represents an aggregation, by z-scores, of indicators in respective category (indicators are inverted where appropriate); standard errors clustered by 304 clusters of villages; no district fixed effects or other control variables included in regressions; *statistically significant at 10 percent level; **statistically significant at 5 percent level; ***statistically significant at 1 percent level

This section is divided into four subsections, which describe the estimated impacts of NSP on perceptions of economic change, household stocks and flows, production, and engagement of women in economic activity and household decision making.

Perceptions of Economic Change

NSP results in a clear change in villagers perceptions of their economic situation and expectations about future economic change, with male and female respondents more likely to report that the economic situation of the household improved during the previous year and more optimistic about the economic prospects of the village in the forthcoming year.

Male and female respondents in treatment villages demonstrate a greater propensity to claim improvement in their household situation during the past year. Among male household respondents, NSP is associated with a 5 percentage point increase in reports of economic improvement. Female

respondents generally view recent economic changes less positively than their male counterparts do, although NSP induces a similar increase in perceptions of change.

In addition to inducing a greater positivism about recent economic changes, NSP is also associated with a greater optimism among male and female household respondents concerning how the economic situation of their village would change during the next year. Among both men and women, NSP resulted in respondents being five percentage points more likely to expect economic improvements during the next year. Women were more generally optimistic than men.

Table 43. Impact of NSP on Perceptions and Expectations of Economic Change

Indicator	Inst.	Obs.	Control	Treat.	OLS	Dist. F.E.	D-i-D
Respondent Perceives that Economic Situation of Household has Improved Relative to Last Year	MHH	4,662 *2,644*	35.4%	40.6%	+.053 (.024)**	+.052 (.017)***	+.055 (.028)**
	FHH *MHH*	4,227 *2,376*	28.7%	34.2%	+.056 (.026)**	+.052 (.019)**	+.071 $^{\delta}$ (.029)**
Respondent Expects Economic Situation of Villagers to Improve in Forthcoming Year	MHH	4,633 *2,645*	25.7%	30.2%	+.045 (.018)**	+.047 (.016)***	+.015 $^{\delta}$ (.021)
	FHH *MHH*	4,213 *2,369*	37.7%	42.7%	+.051 (.025)**	+.047 (.021)**	+.045 $^{\delta}$ (.028)

Notes: *: statistically significant at 10 percent level; **: statistically significant at 5 percent level; ***: statistically significant at 1 percent level; standard errors clustered by village cluster; δ: Baseline indicator addresses perceptions of economic change in the past year

Household Stocks and Flows

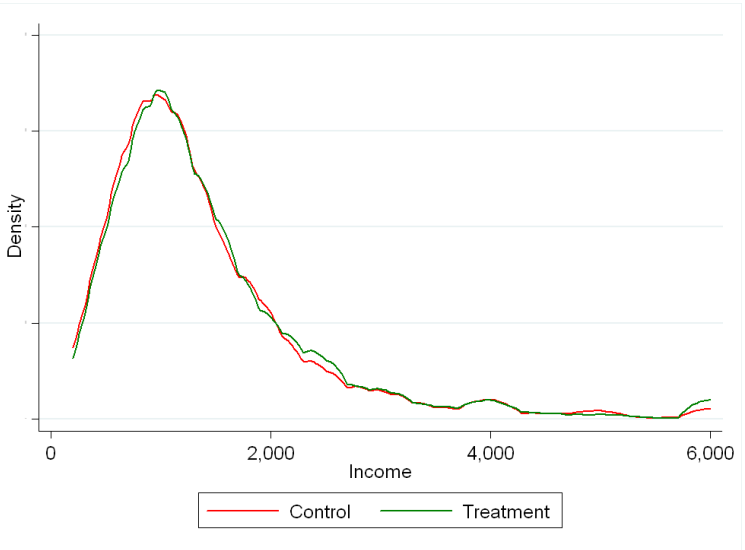
There is very little evidence that NSP has any impact on overall levels of economic activity, assets, or liabilities at the household level. Specifically, the program does not result in any change in levels of household income flows or the incidence of poverty or in the regularity of income sources and also has no effect on levels of consumption expenditures, the composition of household consumption, or on the extent to which the food needs of households are met. Evidence of an effect of NSP on the number of livestock and poultry owned is indicative of a slight negative impact, but ultimately inconclusive. The program has no effect on the ownership of different types of household items. NSP does not affect whether or not villagers experience a need to borrow, the likelihood of villagers needing to borrow in order to purchase food, or the mean value of loans taken by borrowers.

Income Flows

The impact of NSP on household income flows and poverty is negligible. The program appears to induce no change in household levels of income or in the proportion of household members with income levels below $1 per day and results in no difference in the regularity of income sources throughout the year.

Although household income is, on average, higher in treatment villages, the difference between logged values of household income is

Figure 3. Annual Household Income



insignificant at conventional levels.[46] In addition, no statistically significant differences are observed between treatment and control villages with respect to median levels of annual household income ($1,160 in control group; $1,200 in treatment group); per capita annual income ($264 and $261); or median per capita income ($200 and $200).

Table 44. Impact of NSP on Level and Regularity of Household Income and Incidence of Poverty

Indicator	Inst.	Obs.	Control	Treat.	OLS	Dist. F.E.	D-i-D
Level of Annual Household Income ω	MHH	4,578 2,543	$1,388	$1,443	+.039 λ (.029)	+.038 λ (.024)	+.036 λ (.033)
Household Earned Income in All Four Seasons of Past 12 Months	MHH	4,574 2,602	48.1%	50.7%	+.026 (.021)	+.022 (.019)	+.034 (.027)

Note: ω: Data is *winsorized* to remove outlying values occupying 1 percent of either tail; λ: regression of logged values

Additionally, there is no evidence to suggest that NSP increases the proportion of households that earn income throughout the year. Although a slightly greater proportion of households report earning income in all four seasons, the difference is not statistically significant.[47]

Consumption

NSP does not affect household consumption. No effects of the program are apparent on the level of consumption expenditures or in the composition of household consumption, with households in the two groups reporting comparable proportions of expenditures accounted for by food items. NSP also has no impact on the ability of households to meet their food needs.

Table 45. Impact of NSP on Level of Household Consumption and Food Intake

Indicator	Inst.	Obs.	Control	Treat.	OLS	Dist. F.E.	D-i-D
Level of Annual Consumption Expenditures ω	MHH	4,315 *2,092*	$2,276	$2,246	+.007 λ (.033)	+.014 λ (.024)	-.058 λ (.041)
Ratio of Food Expenditures to Total Expenditures	MHH	4,310 *2,088*	61.9%	61.8%	-.001 (.008)	-.001 (.007)	-.009 (.010)
Household Food Needs Not Met At Least Once in Past Week	FHH *MHH*	4,194 *2,353*	24.2%	23.6%	-.006 (.023)	-.011 (.019)	-.012 (.032)

Note: ω: Data is *winsorized* to remove outlying values occupying 1 percent of either tail; λ: regression of logged values

Levels of household consumption are unaffected by NSP, with the difference between values in treatment and control villages being numerically small and statistically significant.[48] Median annual household expenditure levels are virtually identical at $1,762 in the control group and $1,760 in the treatment group. Similarly, there is no statistically significant difference between treatment and control groups in the composition of consumption. In both treatment and control groups, food expenditures consumed an average of 62 percent of consumption bundles, with an average of 9

[46] Household income was estimated with assistance from the enumerator in 44 percent of interviews conducted in control villages and 43 percent in treatment villages

[47] In addition, no statistically significant difference is observed in the average number of seasons in which households earn income, the mean level of which is 3.01 in the control group and 3.07 in the treatment group.

[48] At least one consumption item was estimated with assistance from the enumerator in 65 percent of interviews conducted in control villages and 64 percent in treatment villages.

percent of expenditures accorded to ceremonial or charitable expenses.[49] There is also no impact of NSP on the propensity of female household respondents to report that the household's food needs were not met at least once in the past week, a circumstance reported by 24 percent of female respondents.

Household Assets

The impact of NSP on household assets is limited. There is some evidence that NSP results in a slight reduction in number of livestock and poultry owned, although evidence is indicative of no impact. NSP appears to have no effect on the ownership of different types of household items.

Table 46. Impact of NSP on Ownership of Household Assets

Indicator	Inst.	Obs.	Control	Treat.	OLS	Dist. F.E.	D-i-D
Index of Livestock and Poultry Assets	MHH	4,609 *2,395*	2.11 animals	2.11 animals	-.043 $^{\pi}$ (.056)	-.038 $^{\pi}$ (.052)	-.113 $^{\pi}$ (.066)*
Index of Household Items	MHH	4,651 *2,590*	21.8%	22.4%	+.072 $^{\pi}$ (.091)	+.070 $^{\pi}$ (.052)	+.001 $^{\pi}$ (.096)

Note: π: Regression of aggregates generated by principal component analysis

There are no statistically significant differences between treatment and control groups in an indexation of livestock assets reported by male household respondents,[50] regardless of whether or not district fixed effects are incorporated into the regression. However, a difference-in-difference analysis incorporating data on livestock and poultry ownership from the baseline survey for households surveyed in both surveys reveals a statistically significant difference between the two groups, with NSP appearing to induce a slight reduction in the intensity of ownership of livestock and poultry assets.

An analogous index is constructed for household items, with the exception that the index does not incorporate the number of individual items owned, but rather is based on a binary indication of whether or not the household owns one or more of the specific item.[51] There is no statistically significant difference in the level of the index between the treatment and control groups.

Debt and Borrowing

NSP has no impact on key outcomes relating to debt and borrowing. Specifically, the program does not affect the tendency of villagers to experience a need to borrow, the tendency of villagers to need to borrow in order to purchase food, or the mean value of loans taken by borrowers.

[49] These include money spent on weddings, bride prices, pilgrimages, as well as festival expenditures, and charitable donations or contributions

[50] The index is constructed using principal component analysis and consists of the following livestock types: oxen, cows, horses, donkeys, goats (and kids), sheep (and lambs), chicken, and other poultry

[51] The index is constructed using principal component analysis and consists of the following livestock types: carpet, rug, radio, mobile telephone, television, satellite dish, wheelbarrow, motorbike, water pump, tractor, plow, and car

Table 47. Impact of NSP on Debt and Borrowing

Indicator	Inst.	Obs.	Control	Treat.	OLS	Dist. F.E.	D-i-D
Household Experienced Need to Borrow in Past Year	MHH	4,657 2,633	83.3%	82.9%	-.004 (.016)	-.002 (.013)	.010 (.019)
Household Experienced Need to Borrow in Past Year and Needed to Borrow in Order to Purchase Food	MHH	3,872 *961*	82.3%	82.3%	+.000 (.016)	-.001 (.014)	-.016 (.028)
Value of Loans Obtained in Past Year ω	MHH	3,795 2,168	$802	$789	-.035 λ (.041)	-.032 λ (.038)	-.037 λ (.053)

Notes: ω: Data is *winsorized* to remove outlying values occupying 1 percent of either tail; λ: regression of logged values

The proportion of male household respondents who report that the household experienced a need to borrow in the past 12 months is relatively high, at 83 percent, with levels statistically identical across treatment and control groups. No statistically significant differences are apparent in the two specifications that employ only data from the first follow-up survey or in the differences-in-differences specification that uses data from both the baseline and first follow-up survey. Among male respondents who reported that the household had experienced a need to borrow in the past 12 months, no statistically significant differences were apparent in the proportion who reported that they needed to borrow in order to purchase food. As with the proportion of male respondents who reported experiencing a need to borrow, the proportion reporting needing to borrow for food is relatively high (82 percent). No statistically significant differences between borrowers exist with respect to the mean value of loans obtained in the past 12 months. Among borrowers, the mean and median amounts borrowed in the past 12 months are $796 and $480, respectively.[52]

Production

NSP appears to have only a marginal impact on production and sales of produce. The area of land under cultivation and size of the most recent harvest of the primary crop are unaffected by the program. There is weak evidence that NSP slightly increases the probability of farmers selling produce, but no evidence of such an impact on sales of livestock and/or animal products or handicrafts. NSP does not appear to cause any changes in revenues earned by farmers from sales of produce or livestock and/or animal products, but there is evidence of NSP inducing a slight increase in revenues earned from the sales of handicrafts.

Agricultural Production

The impact of NSP on agricultural production and commercialization is negligible, with the program not affecting the size of land area under cultivation, the size of the most recent harvest of the primary crop, or farmers' perceptions of change in harvest size compared to the previous year. There is weak evidence that NSP increases the probability of farmers selling their produce, although revenues earned by farmers from sales of produce are statistically identical with and without NSP.

[52] In the treatment group, the amount of money borrowed was estimated with the assistance of the enumerator in 10.9 percent of cases, as compared to 11.1 percent in the control group.

Table 48. Impact of NSP on Agricultural Production and Commercialization

Indicator	Inst.	Obs.	Control	Treat.	OLS	Dist. F.E.	D-i-D
Size of Land Area Cultivated in Most Recent Growing Season	MHH	3,246 *1,905*	1.45 ha.	1.28 ha.	-0.175 (.182)	-0.179 (.148)	-0.252 (.234)
Size of Harvest of Most Recent Harvest of Primary Crop ω	MHH	3,218	731 kg.	720 kg.	-0.034 λ (.079)	-0.032 λ (.065)	-
Respondent Perceives Increase in Harvest Size Relative to Previous Year's Harvest	MHH	3,201	65.8%	66.8%	+.010 (.031)	+.016 (.021)	-
Household Sold Produce in Past Year	MHH	3,261 *1,924*	3.8%	5.8%	+.020 (.012)	+.018 (.011)*	+.019 (.016)
Revenue Earned by Sellers from Sale of Produce in Past Year ω	MHH	672 *107*	$639	$664	+0.064 λ (.137)	+0.010 λ (.111)	+0.148 λ (.256)

Notes: ω: Data is *winsorized* to remove outlying values occupying 1 percent of either tail; λ: regression of logged values

No statistically significant differences between the treatment and control groups are apparent in the area of land placed under cultivation by farming households in the most recent cultivation season, with the respective means being 1.45 hectares for farmers in control villages and 1.28 hectares in treatment villages.[53] There is no statistically significant difference between treatment and control groups in the volume of the most recent harvest of the primary crop, as reported by male household respondents engaged in farming activities. Farmers in treatment and control villages reported identical median harvest sizes of 283 kilograms.[54] Unsurprisingly, given the absence of statistically significant differences in harvest sizes, the proportions of farmers reporting an increase in size of their most recent harvest relative to last year's harvest does not differ between treatment and control groups. Approximately two-thirds of respondents claimed to have observed an increase.

Very few farmers overall—4 percent of respondents in the control group and 6 percent of respondents in the treatment group—report that they sold a portion of their most recent harvest.[55] The difference is not statistically significant in the basic OLS specification, but does become significant at the 10 percent level with district fixed effects, indicating that NSP may have a marginal impact in increasing the commercialization of agriculture. Finally, no statistically significant differences between treatment and control groups are observed in the average amount of revenue from produce sales earned by farmers, with the respective means being $639 in the control group and $664 in the treatment group.[56]

Non-Agricultural Production

As with agricultural production and commercialization, there are few significant impacts of NSP on non-agricultural production at this stage of program implementation. No impact of the program is

[53] In both the treatment and control groups, the median size of cultivated land is 0.78 hectares. In the treatment group, the area of land cultivated in the recent season was estimated with the assistance of the enumerator in 5.2 percent of cases, as compared to 5.1 percent in the control group.
[54] In the treatment group, the size of the harvest borrowed was estimated with the assistance of the enumerator in 14.2 percent of cases, as compared to 13.8 percent in the control group.
[55] Of those farmers who reported selling produce, those in the control group reported selling 50 percent of their harvest on average, with commercial farmers in the treatment group reporting having sold 57 percent of their produce on average. This difference is not statistically significant.
[56] Among the 672 farmers who sold produce and from which data was collected on revenues from produce sales, the median revenue for those in the control group is $455 and $420 for those in the treatment group.

detectable on the propensity of households to sell livestock and animal products or handicrafts, or on revenues earned from sales of livestock or animal products. There is, however, evidence that NSP causes a slight increase in revenues earned from the sales of handicrafts among households who sold them.

Table 49. Impact of NSP on Non-Agricultural Production

Indicator	Inst.	Obs.	Control	Treat.	OLS	Dist. F.E.	D-i-D
Household Sold Livestock or Animal Products in Past 12 Months	MHH	4,645 2,654	38.3%	38.4%	+.000 (.022)	+.000 (.019)	-.025 $^{\delta}$ (.025)
Household Sold Handicrafts in Past 12 Months	FHH (MHH)	4,215 2,367	9.0%	10.7%	+.017 (.016)	+.016 (.016)	+.013 $^{\delta}$ (.014)
Revenue Earned by Sellers from Sales of Livestock or Animal Products $^{\omega}$	MHH	1,782 369	$553	$548	-0.000 $^{\lambda}$ (.075)	-0.013 $^{\lambda}$ (.054)	-0.115 $^{\delta\lambda}$ (.107)
Revenue Earned by Sellers from Sales of Handicrafts	FHH (MHH)	401 20	$66	$76	+0.213 $^{\lambda}$ (.134)	+0.215 $^{\lambda}$ (.097) **	-0.014 $^{\delta\lambda}$ (.263)

Notes: δ: Baseline indicators constructed from household income sources; ω: Data is *winsorized* to remove outlying values occupying 1 percent of either tail; λ: regression of logged values

According to data collected from male household respondents, NSP does not have a statistically significant impact on the propensity of households to engage in the sale of livestock, meat, or other animal products, such as leather, skins, wool, milk, or eggs. In both treatment and control groups, 38 percent of male household respondents report that their household sold such in the past 12 months. Although a numerical difference exists between treatment and control groups in the proportion of female respondents that reported that their household had sold carpets, needlecrafts, or other handicrafts in the past 12 months, the difference is not statistically significant with or without district fixed effects. In the control group, 9 percent of female respondents reported that such sales had taken place, while 11 percent of respondents in the treatment group reported such.

Among households that sold livestock or animal products in the past 12 months, there is no statistically significant impact of NSP on revenues earned from such sales. The median level of revenue earned from sales is $400 in both the treatment and control groups.[57] Among households that sold some handicrafts, a statistically significant difference is apparent between the treatment and control groups in the mean revenue earned as a result of such sales, although the result is dependent upon the inclusion of district fixed effects. A difference is also apparent in the median level of revenues, which are $40 in the control group and $53 in the treatment group.[58]

Engagement of Women in Economic Activity and Household Decision Making

NSP is associated with a six percentage point increase in the involvement of women in income-generating activities. There are no impacts of NSP, however, on the ability of women to exercise control over income they have earned or assets they own, or on asset ownership by women. There is also no evidence that NSP changes the extent to which women are involved in decisions concerning the purchase of household items or vis-à-vis family matters.

[57] In the treatment group, revenues were estimated with the assistance of the enumerator in 25.1 percent of cases, as compared to 24.2 percent in the control group

[58] In the treatment group, revenues were estimated with the assistance of the enumerator in 2.1 percent of cases, as compared to 3.9 percent in the control group

Economic Activity

NSP is associated with an increase of 6 percentage points in the involvement of women in income-generating activities. There are no impacts of NSP, however, on the ability of women to exercise control over income they have earned or assets they own, or on asset ownership by women.

Table 50. Impact of NSP on Engagement of Women in Economic Activity

Indicator	Inst.	Obs.	Control	Treat.	OLS	Dist. F.E.	D-i-D
Respondent Engaged in Income Generating Activity During Past 12 Months	FHH (FI)	4,214 4,214	35.7%	41.6%	+.059 (.028)**	+.054 (.020)***	+.059 (.028)**
Income Earner Has Authority to Decide Use of Income Generated	FHH (FI)	1,625 1,166	66.6%	63.7%	-.029 (.026)	-.029 (.022)	-.058 (.041)
Respondent Owns Either Livestock or Poultry, Land, or Jewelry	FHH (FI)	4,228 4,188	46.1%	47.1%	+.010 (.025)	+.017 (.021)	-.004 (.024)
Asset Owner Has Full or Partial Control Over Use of All Owned Assets	FHH (FI)	1,970 1,861	72.3%	71.8%	+.004 (.024)	+.004 (.024)	-.005 (.030)

Female respondents in the treatment group are 6 percentage points more likely to report that they have engaged in an income-generating activity in the past year, compared to 36 percent of female respondents in the control group. The difference is statistically significant at high levels of confidence with and without district fixed effects and baseline controls, indicating that NSP is responsible for increasing the involvement of women in economic activity.[59] Among female respondents who report that they engaged in an income-generating activity, assignment to treatment or control group does not appear to be a significant determinant of whether or not the respondent can decide how to use income generated by their work; 65 percent of respondents report being able to do.

NSP has no impact on the proportion of respondents who report owning livestock or poultry, land, or jewelry, with differences between treatment and control groups in this dimension falling below levels of statistical significance in both specifications. Overall, 47 percent of female respondents reported owning at least one type of asset. There are no statistically significant differences between the two groups in the proportion of female villagers who exercise partial or full control over sales of or income generated by their livestock or poultry, land, or jewelry. Across the sample, 72 percent of respondents report having such control.

Household Decision Making

There is no evidence that NSP changes the extent to which women are involved in decisions concerning the purchase of household items or vis-à-vis family matters.

[59] The increase appears to be broad-based and not concentrated in any single income-generating activity as there are no statistically significant differences between treatment and control groups in the proportion of female household respondents engaged in the following activities: subsistence agriculture or animal husbandry; commercial agriculture; sale of animal products; commercial animal husbandry; agricultural and livestock wage labor; non-agricultural wage or manual labor; handicraft production; other craft or small business; or professional / formal sector work

Table 51. Impact of NSP on Engagement of Women in Household Decision Making

Indicator	Inst.	Obs.	Control	Treat.	OLS	Dist. F.E.	D-i-D
Women Are Consulted or Responsible for Decisions on Purchases of Food, Clothes, and Medicine	FHH (FI)	4,226 *4,186*	39.7%	39.6%	-.002 (.027)	-.008 (.029)	-.007 (.027)
Women Are Consulted or Responsible for Children's Marriage and Education, Elderly Care, and Procreation	FHH (FI)	4,168 *4,128*	63.7%	61.8%	-.019 (.022)	-.019 (.017)	-.012 (.022)

In order to ascertain the impact of NSP on women's involvement in household decision making, female respondents were asked who in the household is responsible for decisions concerning purchases of food, clothes, and medicine, as well as decisions related to marriage and education of boys and girls, elderly care, and whether or not to have more children. Two groups of indicators were formed to provide aggregate measures of the extent to which women are involved in decisions on purchases of household items and family matters. No statistically significant differences are apparent between the control and treatment groups in either of these values, indicating that NSP has a negligible impact on women's involvement in household decision making.

VI. Conclusion

The results described above represent the impacts of NSP at the first stage of the evaluation. These results cover all indicators from the first follow-up survey directly related to outcomes that NSP is expected to affect, either in the first or second stage of the evaluation.[60] With respect to a number of indicators, such as those pertaining to economic activity in particular, it is important to note that these results present only an interim estimate of the impacts of NSP and are necessarily incomplete due to the fact that many projects funded by the program were not completed at the time of data collection. This report will thus be followed in 2011 by a complete analysis of program impacts using data collected following project completion.

The individual results of the evaluation indicate that the creation of the CDC and ensuing selection and implementation of projects is particularly successful in changing the structure of village governance and, in particular, the involvement of women in village governance; in improving perceptions of villagers about their economic situation; and in changing male villagers' attitudes toward government figures. Specifically, NSP creates village councils that do not appear to have existed previously and shifts some authority away from tribal elders to these village councils. The program has a particularly noteworthy impact in creating new avenues through which women may participate in local governance, increasing men's openness to women participating in local governance, and enhancing the responsiveness of village governance institutions to women. NSP increases connections between villages and the central government and also appears to improve the perceptions of male villagers of a wide range of government representatives and officials. The program, at this interim stage, is found to improve access of villagers to drinking water and electricity, but does not appear to impact the access of villagers to infrastructure or result in any changes in overall economic activity, female socialization, or levels of community trust or the prevalence of disputes.

[60] Several indicators that did not exhibit almost any variation across the full sample were excluded from the analysis. A full list of indicators, both included and excluded from this report, and the results of regressions on indicators not included in this report, is presented in the Appendix of Additional Indicators, available on the evaluation website at <http://www.nsp-ie.org>

An examination of the evaluation results collectively indicates that NSP appears to have a robust positive impact at this stage of program implementation. If NSP did not have an effect, we would expect approximately half of the results to be in the direction predicted by the hypotheses and half to be in the opposite direction, with about 5 percent of the results being statistically significant by virtue of random error. What is observed, however, is that out of 243 indicators, 80 percent of coefficients possess a sign that is consistent with the hypothesis of a positive effect of NSP and 25 percent are statistically significant at the 5 percent level. Moreover, statistically significant results are concentrated in areas more likely to be affected by NSP during the first half of program implementation, such as village governance and political attitudes, but are relatively rare in areas unlikely to be affected prior to project completion, such as access to services or economic outcomes.

It is clear, from the results described in this report, that NSP has positive impacts on a number of important dimensions, but the qualitative significance of the individual or collective impacts—and how they compare to the impacts of other development programs, both in Afghanistan and elsewhere—is more difficult to assess. This is due both to the small number of comparable evaluations completed to-date and to the lack of commonality in design between completed studies. As noted above, a number of randomized controlled trials of development programs are currently in progress. Once these are completed, it is hoped that they will enable a greater contextualization of the findings of this study and thereby permit comparisons of the impacts of NSP with those of other development interventions.

Although the study described in this report is not complete, it is hoped that the scope of the NSP evaluation—which covers 500 sample villages located throughout six provinces in western, northern, northeastern, eastern, and central Afghanistan and involves seven different NGOs—can serve as an encouraging example that rigorous, randomized evaluations can be successfully implemented on a large scale even in environments presenting a wide array of challenges. Moreover, it is hoped that the interim results presented here will be of interest to program stakeholders and serve to demonstrate the important role in policy making that evaluations can perform in providing rigorous, objective feedback on the success of a program in promoting change in development outcomes of interest and thereby enabling governments, donor agencies, and civil society to make informed decisions on program design and funding based on scientific evidence.

Works Cited

Affolter, F. et al. 2006. "Community Elections in Rural Afghanistan: Narrative Report About Experiences and Results of a Secret Ballot Experiment within the Government of Afghanistan's National Solidarity Programme." *Journal of Central Asian Studies* , 1-2.

Banerjee, A., and E. Duflo. 2009. "The Experimental Approach to Development Economics." *Annual Review of Economics* 1: 151–-178.

Barakat, S. 2006. *Mid-Term Evaluation Report of the National Solidarity Programme (NSP), Afghanistan.* York, U.K.: Post-war Reconstruction and Development Unit (PRDU), University of York.

Beath, A., F. Christia, and R. Enikolopov. 2008. *Randomized Impact Evaluation of the National Solidarity Programme: Baseline Survey Report.* Available at: <http://www.nsp-ie.org/reports/BSR..pdf> (accessed January 15, 2010).

Boesen, I. 2004. *From Subjects to Citizens: Local Participation in the National Solidarity Programme.* Kabul: Afghanistan Research and Evaluation Unit.

Brick, J. 2008. *Investigating the Sustainability of Community Development Councils in Afghanistan*. Kabul: Afghanistan Research and Evaluation Unit.

Dongier, P. et al. 2002. "Community-Driven Development." In J. Klugman, ed. *A Sourcebook for Poverty Reduction Strategies, Vol. 1.* Washington, DC: The World Bank.

Fearon, J. et al. 2008. "Community-Driven Reconstruction in Lofa County: Impact Assessment." Available at: <http://www.columbia.edu/~mh2245/FHW/FHW_final.pdf> (accessed December 7, 2009).

Fung, A., and E. Wright. 2003. *Deepening Democracy: Institutional Innovations in Empowered Participatory Governance.* London: Verso.

Higashi, D. 2008. *The Challenge of Constructing Legitimacy in Peace-Building: Case of Afghanistan.* Center of International Relations Working Paper, University of British Columbia.

Howell, J., and J. Lind. 2008. " 'Civil Society with Guns is Not a Civil Society': Aid, Security, and Civil Society in Afghanistan." London: Non-Governmental Public Action Program Working Paper, London School of Economics.

Humphreys, M. 2008. "Community-Driven Reconstruction in the Democratic Republic of Congo: Baseline Report." Available at: <http://www.columbia.edu/~mh2245/DRC/report.pdf> (accessed December 8, 2009).

Imbens, G., and J. Wooldridge. 2009. "Recent Developments in the Econometrics of Program Evaluation." *Journal of Economic Literature* 47(1): 5–86.

Kakar, P. 2005. *Fine-Tuning the NSP: Discussions of Problems and Solutions with Facilitating Partners.* Kabul: Afghanistan Research and Evaluation Unit.

Kingsley, T. 1996. "Perspectives on Devolution." *Journal of the American Planning Association* 62 (4): 419–426.

Manor, J. 1999. *The Political Economy of Democratic Decentralization.* Washington, DC: The World Bank.

Mansuri, G., and V. Rao. 2004. "Community-Based and -Driven Development: A Critical Review." *World Bank Research Observer* 19 (1): 1–39.

Miguel, T., R. Glennerster, and K. Casey. 2006. "Community-Driven Development in Sierra Leone." Available at: <http://www.povertyactionlab.org/evaluation/community-driven-development-sierra-leone> (accessed April 5, 2010).

Nixon, H. 2008. *The Changing Face of Community Governance? Cmmunity Development Councils in Afghanistan.* Kabul: Afghanistan Research and Evaluation Unit.

Noelle-Karimi, C. 2006. *Village Institutions in the Perception of National and International Actors in Afghanistan.* Bonn: Center for Development Research Working Paper No. 26, University of Bonn.

Nordholt, H. 2004. "Decentralization in India: Less State, More Democracy?" In J. Harris, K. Stokke, and O. Tornquist, eds. *Politicizing Democracy: The New Local Politics of Democratization.* New York: Palgrave Macmillan.

Torabi, Y. 2007. *Assessing the NSP: The Role of Accountability in Reconstruction.* Kabul: Integrity Watch Afghanistan.