# Does the Enhanced Implementation of a World Bank Community Driven Development Program Impact Social Cohesion in Kyrgyzstan?

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## Abstract

Community-driven development (CDD) – a widely practiced development tool worldwide - strives to empower and develop communities by giving them joint control over aid allocations. This is expected to improve local development, local governance, and strengthen social cohesion. However, the empirical evidence for the third outcome is quite weak. This paper presents the findings of an impact evaluation research examining the extent a CDD intervention implemented during 2014-2017 strengthened social cohesion in two regions in Kyrgyzstan. Our findings are that, on the one hand, the CDD project led to a sense of unity and cooperation and to a perception of improvements in local governance and educational services. On the other hand, the program had at best a weak effect on deep-trenched perceptions, attitudes and trust for closely related social groups and local institutions. This research is in line with the previous studies that find weak effects of CDD on social cohesion.

**Keywords:** social cohesion; community driven development; impact evaluation; multidimensional indices; development economics; Kyrgyzstan.

**JEL codes:** C31, C93, D02, H43.

## 1. INTRODUCTION

Community driven development has been widely used as a poverty reduction and local development tool by the international community and national governments in low to middle income and conflict-affected countries. The approach empowers local population with decision-making and control over resources to address community needs in basic services, infrastructure, schools, and hospitals. CDD approaches are particularly prominent in conflict and fragile situations as formal authorities may not have capacity to deliver public services. CDD may also strengthen social cohesion, peacebuilding and stabilisation in conflict-affected and fragile settings. The empirical evidence for the CDD and social cohesion hypothesis is quite weak (Casey et al. 2012; King et al. 2010; King and Samii 2014; White et al. 2018). This paper presents the findings of an impact evaluation research examining the extent the community driven development projects foster social cohesion. The project's intervention activities and research took place from 2014 to 2017 in Osh and Naryn regions of Kyrgyzstan.

In this research we seek to understand how CDD interventions contribute to social cohesion in rural Kyrgyzstan. The introduction of specially-designed CDD interventions and their subsequent evaluation will help answer three research questions: 1) Do the project's CDD approaches improve social cohesion in the conflict-affected communities in Kyrgyzstan? 2) Does the impact of the intervention differ between mono- and multi-ethnic communities? 3) Which CDD approaches have the greatest impact on social cohesion outcomes and indicators?

The research is conducted in two regions of Kyrgyzstan. Osh region is a part of Kyrgyzstan ethnically mixed with large representation of Uzbeks - the second largest ethnic group in the country. The project took place after three years since the eruption of the violent conflict in June 2010. This short-lived but violent conflict resulted in more than 400 deaths, in over 300,000 people displaced, and in numerous properties destroyed. Since the order was restored, significant peacebuilding efforts were made by the Kyrgyz Government and the international community. This research is to learn whether CDD can be used as a peacebuilding intervention. The second region is Naryn, a mountainous and sparsely populated region with mostly ethnic Kyrgyz residing in the area. Inclusion of Naryn was justified to learn about perceptions and attitudes of mono-ethnic regions about social cohesion, and whether levels and dynamics of social cohesion differ compared to multi-ethnic communities.

Intervention sites were selected through a multi-step randomized approach with final sample of 30 communities: 15 pilot and 15 "matching" control communities which altogether comprised of 137 villages. Total number of households surveyed

was 2,000, with 1,200 household information collected from the treatment sub-districts and about 800 household information collected in the control sub-districts. At individual level we collected over 7 thousand individual responses per wave.

The evaluation design is based on a difference-in-differences (DD) set-up. The methodology rests on a randomized control trial approach based on comparison of treatment and control communities. The hypotheses that the treatment communities – which conduct mobilization and participatory activities and receive the CDD micro-grants - are likely to demonstrate enhanced social cohesion after the intervention compared to those control communities which received no intervention from the project. Intervention sites were selected through a multi-step randomized approach that included narrowing down the initial list of qualified 133 communities to 30 communities. Using the pair-wise matching based on population size and ethnic composition, 15 communities were randomly assigned the treatment group and the other 15 communities a control status. Comparing baseline, mid-line, and end-line survey data between two groups of treatment communities, we are able to infer causal effects.

We find only limited evidence on the ability of community driven development projects to foster social cohesion. On the one hand, the CDD project led to a sense of unity and cooperation and to a perception of improvements in local governance and educational services. On the other hand, the program had at best a weak effect on deep-trenched perceptions, attitudes and trust for closely related social groups and local institutions. The direct outcomes of the CDD program, such as improved local public services resulting from the mobilization and investment efforts, point to some marginal improvements, such as more positive assessment of local authorities' work and improved satisfaction with educational services. We posit that these results obtained in part because the duration of the CDD interventions was rather short and the micro-projects were only realized in less than a half of villages in treatment sub-districts. It stands to reason that larger and longer CDD projects would have had larger impacts on social cohesion as well. This research has largely confirmed the findings of the previous studies on the effects of CDD and fits to the meta-study findings on effects of CDD interventions.

This paper continues by describing the key elements of the CDD intervention, theory of change, and outcomes (Chapter 2). Chapter 3 is dedicated to the methodological issues, including evaluation strategy, sampling and data collection. Chapter 4 describes the findings, which include balance test, difference-in-difference results, and sub-groups analysis. Chapter 5 discusses the results. The paper is finalized with the recommendations for research, practice, and policy.

## 2. INTERVENTION

The project intervention follows the CDD approach, widely used in developing countries and in Kyrgyzstan as a tool to support local development. The project interventions were built on AKF and MSDSP's previous experience in participatory development and community mobilization projects in Kyrgyzstan and other parts of the world. The intervention component of the project was implemented in 2015, 2016 and 2017, though some of the micro-projects were completed in the first quarter of 2018. The project intervention activities[1] were branded by name *BIRGE*, which means 'together' in both Kyrgyz and Uzbek languages.

To meet the objectives of the project, two approaches for the intervention activities were developed during the initial stages, named CDD and CDD+ approaches, correspondingly. The first approach comprised of traditional CDD approaches including five key elements: situational analysis (local assessment), selection of target partners (working group), participatory community needs identification/prioritization (local development strategy), sub-granting for local projects, and participatory monitoring and evaluation.

The second approach, named CDD+, included additional activities on top of the standard approach in order to create conditions for enhanced social cohesion in a part of intervention communities. These additional activities included 1) community initiatives and 2) technical assistance and capacity building for local authorities. Community initiatives included, among other few, deliberations on community issues, support to hold forum theaters, and youth led initiatives to help vulnerable social groups. The technical assistance and capacity building included, for example, focused assistance to improve the local development strategies, the trainings on local budgets and asset management, social audit, and legal assistance. Both types of extra activities included deliberations and possible applications of the concept of social cohesion. For example, MSDSP KG built the capacity of local government and non-government organizations to jointly self-assess the state of social cohesion at the community level, identify factors that divide communities, and develop strategies to improve social cohesion.

[1] The intervention activities were carried out by the Mountain Societies Development Support Programme in Kyrgyzstan (MSDSP); the research was conducted by Stockholm International Peace Research Institute (SIPRI) and the Institute of Public Policy and Administration of the University of Central Asia (IPPA UCA). The project's intervention activities and research took place from 2014 to 2017 in Osh and Naryn regions of Kyrgyzstan. The project was funded by the World Bank and the Aga Khan Foundation.

Both treatment arms funded infrastructure micro-projects worth about 20 thousand US dollars each per community and both treatment arms also included some social cohesion enhancing activities.

**Figure 1: Intervention components by type of intervention communities**

| **Sub-districts →<br>& Intervention components↓** | **CDD**<br>*7 sub-districts* | **CDD+**<br>*8 sub-districts* | **Control**<br>*15 sub-districts* |
|---|---|---|---|
| Standard CDD | • Situational analysis<br>• Selection of partners<br>• Participatory community needs identification / prioritization<br>• Sub-granting for local projects<br>• Participatory monitoring and evaluation | | No activity |
| Capacity building | Some activity | Full scale activities | No activity |
| Community initiatives | No activity | Full scale activities | No activity |
| Data collection | Yes | Yes | Yes |

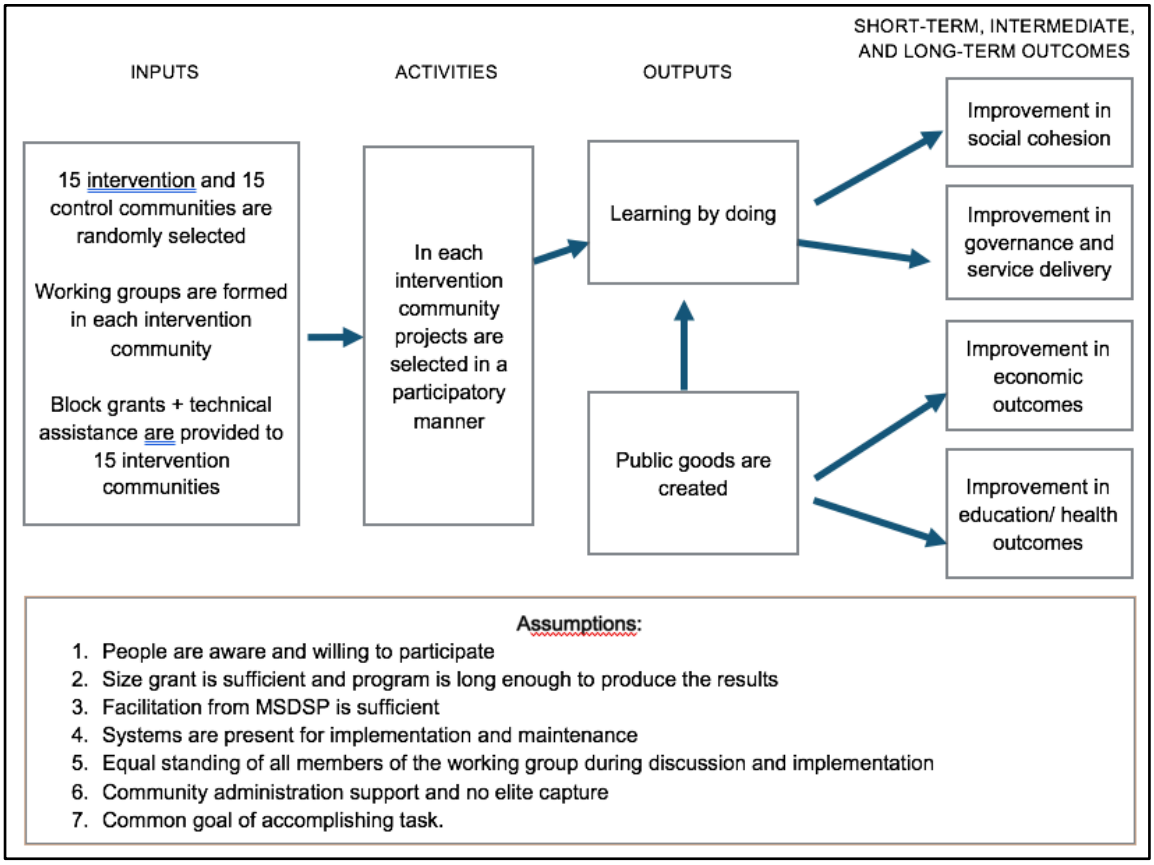
Source: Authors' illustration

This project applies the universal theory of change for CDD interventions. CDD embodies participatory bottom-up approach aimed at improving social and economic outcomes. According to the theory of change, the main ingredients of the project intervention are: 1) 15 intervention and 15 control communities are randomly selected for the project and impact evaluation; 2) MSDSP forms a working group in each of the 15 intervention communities; working groups consist of members of different social groups, local administration, and informal leaders. 3) technical assistance and grants of about 20,000 US dollars are provided to the intervention communities to contribute in addressing a community developmental need. The working groups are central in the practical implementation of the intervention by serving communication, engagement, implementation, and oversight roles. A basic mechanism linking input, activities, outputs, and outcomes of the project is depicted in Figure 2.

Per this theory of change, there are two major outputs of the project. First, during the numerous cycles of the process leading to the implementation of a chosen micro-project(s), the members of the working groups "*learn by doing*". It is assumed,

that by working together to implement a CDD project, they gain more understanding about other social groups and local leadership; by working together towards a common goal, they become more cooperative and gain trust. On the other hand, as result of the whole process, a public good - such as clinics, schools, roads, and access to clean water - is created. The public good – addressing economic, education, health, or infrastructure needs - might have a wider effect on social cohesion by improving living conditions in communities, ensuring quality public services, and creating space for engagement between community members. This effect is assumed to affect population beyond direct beneficiaries in the communities.

**Figure 2: Theory of change of CDD programs**




The notion that CDD improves social cohesion is based on the assumptions of Allport's *Contact Theory* (Allport 1954). The Allport Theory states that active contact between members of different groups leads to more tolerance if: 1) members have equal standing during discussions, in decisions and implementation; 2) there is support from local administration or a higher structure in a hierarchy; and 3) there is a common goal of accomplishing a task. This theory fits very well to the CDD approach, however, the project requires several more specific assumptions for the theory of change to be fulfilled. These CDD assumptions require that: 4) people are aware of the project and willing to participate; 5) size of the grant is sufficient to implement the project and there is enough time for the

implementation; 6) facilitation from the implementing agency is effective and sufficient; and 7) the systems are present for implementation and maintenance. If all these assumptions are fulfilled, a CDD approach may enhance social cohesion in intervention communities in addition to development and governance outcomes.

## 3. EMPIRICAL STRATEGY AND DATA

The research methodology applies a randomized control trial method based on the comparison of two groups of communities (pilot and control). The research rests on the hypothesis that the pilot communities are likely to demonstrate enhanced social cohesion indicators after the intervention compared to those receiving no intervention.

The evaluation design is based on a difference-in-differences (DD) set-up. We will observe two types of groups: pilot AAs and control AAs for two time-periods (before and after the program is implemented). The impact of the program is then estimated as:

$$\hat{\delta} = \left(\bar{y}_{P,2} - \bar{y}_{P,1}\right) - \left(\bar{y}_{C,2} - \bar{y}_{C,1}\right)$$

where $P$ and $C$ represent outcomes for the pilot and control communities, respectively; the baseline period is labelled 1 and the follow-up period is labelled 2. The DD estimate starts with the time changes in averages for the individuals (in pilot AAs) and then proceeds with the change means for individuals in control communities. This method of impact evaluation is based on the "parallel paths" assumption, meaning that developments in both pilot and control communities are assumed to be similar and only the difference is the intervention for the pilot group. The estimation will eventually be implemented as a regression, adding relevant covariates.

Intervention sites were selected through a multi-step randomized approach that included filtering out potentially qualified communities from 137 sub-districts in the initial stage. This resulted in a sample frame of 38 sub-districts, which was eventually narrowed down to 30 communities: 15 pilot and 15 "matching" control communities. The pair-wise matching was based on population size and, for multi-ethnic communities, ethnic composition.

At the onset of the project, MSDSP KG determined the selection criteria of the project sub-districts. The project initiators targeted 15 pilot (or treatment) sub-districts or ayil aimaks (AAs). These 15 AAs were paired with the same number of control communities to evaluate the impact of project interventions. To select a sample frame of eligible communities for the baseline survey, the team identified

137 AAs in Osh and Naryn oblasts. They then excluded those that did not meet the selection criteria for forming a sample frame of AAs for randomisation. The following criteria were established to form the sample frame for the project:

- No previous participation in MSDSP KG's community mobilisation activities.
- Small to medium population size (between 1,000 and 30,000).
- Some distant locations in both oblasts were excluded.
- For Osh oblast:
    - Location is not close to Osh city's Kara-Suu market.
    - At least 10 percent of the population in multi-ethnic AAs is not Kyrgyz.

Randomization was implemented by the research team using computer generated random numbers using STATA statistical software. The randomization and treatment assignment were done in three steps. First, 18 pairs of AAs were matched based on population size and, for multi-ethnic communities in Osh oblast, on ethnic composition. This means that two remaining A*yil Aimaks* were left out because their demographic characteristics were dissimilar to the other sub-districts. The second step was a computer-based randomization (through random number generation) in which we assigned a pilot or a control status to each AA. Thirdly, the random process was also applied to define which pairs will be considered in the project – thus, three pairs of AAs were left without any project coverage. As a result, with the 1:1 allocation ratio, 15 AAs were assigned a treatment status and 15 AAs were assigned a control status.

The randomization was semi-public in presence of research and implementation teams. The research team conducted the randomization. The beneficiaries did not participate in the randomization process. The results of randomization were discussed and two sub-districts were changed the status based on operational considerations of a large distances in Naryn oblast and probability of success of the intervention – two sub-districts in the treatment status in Osh oblast were income-sufficient.

The sample size of the number of sub-districts and the households to survey was determined by the donors, AKF USA and the World Bank. They suggested to implement the project interventions in 15 sub-districts in two oblasts, Osh and Naryn, and add 15 sub-districts to be used as a control group. The number of households to be surveyed was defined at 2,000 in total, with 1,200 household information collected from the pilot sub-districts and about 800 household information collected in the control sub-districts. Given that we envisioned collection of the data at individual level, it meant the collection of about 7 thousand individual responses.

Out of total 30 sub-districts, 20 were from Osh oblast (comprising of 117 villages), and 10 sub-districts from Naryn oblast (22 villages). In each village, a listing

procedure of households was applied to enable random selection. Each village was divided in several clusters, depending on village size. Then, in every village, one cluster was randomly selected. Small villages were analyzed as a cluster. A list of all households was prepared for each cluster. During the listing process, some villages were excluded due to the absence of the permanent population.

We collected primary quantitative survey data at three levels. First was the individual level which included adult and young household members. The inclusion of young population was motivated by participation of youth in the conflict in 2010 – and thus, surveying the young household members aged 14-17 was intended to address the knowledge gaps about this group's attitudes and perceptions. The second level of the data was focused at household level in order to take into account household demographic, economic and other characteristics. The third level was at the community level, both village and sub-district. In the community surveys we collected data from the local leaders from each village, and the socio-economic characteristics from each village.

The baseline, midline, and endline surveys were conducted, respectively, in 2014, 2016, and 2017 in the same time period starting from end-August till mid-October. The synchronization of the data collection period gives an extra input to the internal validity of the study ensuring that the data are exposed to the same seasonal effects. The baseline and endline surveys are comparable in terms of content where the full set of modules was asked. We refer to the baseline report of this project (Esenaliev et al. 2016) for the description of the process and content of the baseline questionnaires. The mid-line survey was conducted based on the shortened version of the baseline questionnaires and included only the parts needed to construct the social cohesion index to take into account the underlying events such as natural and political shocks. The midline and endline questionnaires included an additional section asking the individual respondents about their knowledge about and participation in the project implementation activities.

The survey data collection throughout the project was conducted by the Center for Economic and Social Research, Soceconic. Soceconic is a Bishkek-based survey and consulting firm. The Soceconic team in Osh oblast included about 40 interviewers and four supervisors. The Naryn oblast team was smaller, with nine interviewers and two supervisors, due to smaller sample of surveyed households in Naryn. The field supervisors were responsible for technical support, data quality checks, and for collection of information in the community questionnaire. along with two regional supervisors were responsible for logistical and administrative issues, as

The final sample of the population points covered by the listing process was 137 villages (116 villages in the Osh sample and 21 villages in the Naryn sample). The distribution of households was based on the population size of the sample (of the

targeted 2,000 households 1,700 were located in Osh oblast and 300 in Naryn oblast). All three waves of the survey were collected around August-November in 2014, 2016, and 2017. The quantitative surveys were administered at the individual-, household-, and village-level.

**Table 1: Evolution of the sample of communities, households, and individuals**

| | Total | | | Control | | | Pilot | | |
|---|---|---|---|---|---|---|---|---|---|
| | 2014 | 2016 | 2017 | 2014 | 2016 | 2017 | 2014 | 2016 | 2017 |
| Ayil aimaks | 30 | 30 | 30 | 15 | 15 | 15 | 15 | 15 | 15 |
| Villages (aiyls) | 137 | 137 | 137 | 73 | 73 | 73 | 64 | 64 | 64 |
| Households | 1,982 | 1,982 | 1,956 | 783 | 786 | 775 | 1,199 | 1,196 | 1,181 |
| Individuals | 6,343 | 6,783 | 6,846 | 2,508 | 2,641 | 2,686 | 3,835 | 4,142 | 4,160 |
| Youth | 866 | 825 | 800 | 340 | 321 | 319 | 526 | 504 | 481 |

*Source: SoCo baseline, midline, and endline surveys (2014, 2016, 2017)*

The data in all three waves were collected through face-to-face interviews using paper questionnaires. Average workload per interviewer was approximately 25 households, but the actual number of individual level responses differed depending on the size of households surveyed. On average, the time spent on one household questionnaire was about 43 minutes and on one individual questionnaire about 40-43 minutes.

There was not much difference between treatment and control communities from the data collection perspective. However, in the midline survey an additional module about awareness and participation in the intervention activities was administered only in the treatment communities. The respondents received a small monetary compensation for their responses. The amount was about 75 Kyrgyz Soms (1.1 US dollars) per one completed questionnaire.

Sample attrition is not an issue in this study. As shown in Table 1, the initial 1,982 households surveyed in the baseline survey reduced to 1,956 in the endline survey in 2017, which is 1.3% reduction overall and across both treatment and control communities. Moreover, the number of individual respondents aged 14 and older did grow for 6% in 2017 compared to the number of respondents in 2014. The number of the same individuals who were interviewed in all three waves is 5,493 which corresponds to 58% of unique respondents interviewed in all three waves of survey. Overall, the project collected data from 9,462 individuals in the course of the project.

The ethical approval of baseline and end-line questionnaires was conducted by IRB Services (http://www.irbservices.com) which is an independent company that reviews research involving humans and performs ethical oversight of the research.

## 4. RESULTS

*Balance Test*

This section examines whether the randomized assignment of target communities into pilot (or intervention) and control groups achieved a balance in demographic characteristics. With a balance, there would be no statistically significant differences between the intervention and control communities based on demographic indicators, such as population size and ethnic composition. The baseline data suggests that we achieved balance on these characteristics at village, household and individual levels. The impact estimation technique – the difference-in-differences approach - helps to eliminate the few pre-project differences that we revealed, so the impact could be attributed to the project and not to initial differences between control and pilot groups.

Table 2 presents the total means and test of balance of demographic indicators between pilot and control villages (ails). The total number of villages surveyed is 137 with 73 villages being in the pilot group and the remaining 64 in control. Pilot villages on average occupy larger area, 330 hectares (ha) versus 286 hectares in control villages, but the difference is not statistically significant.

**Table 2: Balance test at village level**

*Village (ail) level*

| Indicator | Total mean | Control | Pilot | t-stat | |
|---|---|---|---|---|---|
| Area of the community, ha | 309 | 286 | 330 | 0.62 | |
| Travel distance to oblast center, in km | 53 | 56 | 50 | -0.68 | |
| Population, # of people | 2,630 | 2,801 | 2,479 | -0.66 | |
| Share of Kyrgyz, % | 76 | 77 | 75 | -0.21 | |
| Share of Uzbek, % | 18 | 17 | 19 | 0.24 | |
| Village has kindergarden | 0.64 | 0.70 | 0.58 | -1.27 | |
| Share of HHs with access to safe drinking water, % | 57 | 55 | 59 | 0.57 | |
| Development project was implemented in last 3 years | 0.82 | 0.72 | 0.92 | 1.65 | * |
| # shocks happened in village in last 12 months | 3.6 | 4.0 | 3.4 | -1.51 | |
| Average % of households affected by all shocks | 44 | 46 | 42 | -0.59 | |
| Sample size | 137 | 64 | 73 | | |

Source: Baseline Survey for the Social Cohesion Project, 2014.
The mean differences between control and pilot (treatment) villages are tested using t-test. Significant differences are indicated by * (p<0.1), ** (p<0.05), *** (p<0.01).

Among many other characteristics that we test are: travel distance to oblast center, number of people living in the villages, share of Kyrgyz and Uzbek populations, if a village has a kindergarten, if the households have access to drinking water, number of shocks occurred in the village in the last 12 months, and average percentage of households affected by all shocks. The differences in these characteristics between pilot and control villages are not statistically significant, meaning that we achieved balance in randomization. The only indicator where we see the significant

difference is the proportion of villages where the development project was implemented in the past three years. It is larger in the pilot villages than in the control villages, and this difference is statistically significant at 10 per cent level.

Household level indicators are presented and analyzed in three areas: 1) demographics, 2) income and asset wealth, and 3) access to services. Household demographics reveal no statistically significant differences between pilot and control communities, validating that the balance was achieved at the household level due to randomization (
Table 3). Household size is about 6 persons in both communities and include mostly members of the working age and children. On average, about 74 per cent of the households are Kyrgyz, and 23 per cent Uzbek. About 24 percent of households reported having migrants in their families.

When comparing income and asset wealth, the differences between the indicators such as, household income per capita, car and livestock ownership (sheep), are not statistically different between treatment and control households. However, households in the control group on average own larger plots of land than the pilot households. Finally, when it comes to access to services, we investigate the following indicators: clean water availability, frequent disruption of energy supply, distance to local administration, and distance to next hospital. Among these characteristics, households in control group have significantly longer distances to next hospital (2.6 km) than the pilot households (1.3 km).

**Table 3: Balance test at household level**

| Indicator | Total mean | Control | Pilot | t-stat | |
|---|---|---|---|---|---|
| Household size | 6.0 | 5.9 | 6.0 | 0.75 | |
| Work aged, 18-65 | 3.5 | 3.4 | 3.5 | 0.68 | |
| Children aged 0-17 | 2.3 | 2.2 | 2.3 | 0.82 | |
| Household proportion of Kyrgyz ethnicity | 0.74 | 0.73 | 0.74 | 0.07 | |
| Household proportion of Uzbek ethnicity | 0.23 | 0.24 | 0.23 | -0.02 | |
| Household has a migrant(s) abroad | 0.24 | 0.21 | 0.26 | 1.42 | |
| HH income per capita, Soms | 3,737 | 3,605 | 3,824 | 0.77 | |
| Household owns a car(s) | 0.40 | 0.41 | 0.39 | -0.65 | |
| Size of owned land, ha | 1.05 | 1.33 | 0.86 | -1.67 | * |
| Sheep equivalent unit | 20.1 | 21.8 | 19.0 | -0.53 | |
| Water is from clean source | 0.70 | 0.70 | 0.69 | -0.08 | |
| Frequent disruptions of energy supply | 0.29 | 0.30 | 0.29 | -0.09 | |
| Distance to local administration, km | 2.18 | 2.46 | 2.00 | -1.11 | |
| Distance to next hospital, km | 1.84 | 2.63 | 1.34 | -2.59 | *** |
| Sample size | 1,982 | 783 | 1,199 | | |

Source: Baseline Survey for the Social Cohesion Project, 2014.
The mean differences between control and pilot (treatment) households are tested using t-test.
Significant differences are indicated by * (p<0.1), ** (p<0.05), *** (p<0.01).

Finally, we compare the main characteristics on the individual level between individuals in the pilot and control groups (Table 4). The individuals in both samples are on average 40 years old, 52 per cent female, 74 per cent officially married, and 72 per cent being ethnic Kyrgyz and 26 per cent Uzbek. Around half of them are officially employed and have a high school degree (around 11 years of schooling). About 47 per cent are inactive on a job market, that is not searching for employment, and have on average less than one chronic illness.

We measured risk attitudes on scale from 1 to 5, and on average individuals are risk-neutral. Overall life satisfaction and satisfaction with a community are high, around 7 out of a maximum of 10. Individuals in the control group tend to be more satisfied with their life than individuals in pilot group.

**Table 4: Balance test at individual level**

| Indicator | Total mean | Control | Pilot | t-stat | |
|---|---|---|---|---|---|
| Age, years | 40.6 | 40.9 | 40.4 | -0.90 | |
| Female | 0.52 | 0.52 | 0.51 | -1.32 | |
| Married | 0.74 | 0.73 | 0.75 | 1.04 | |
| Kyrgyz | 0.72 | 0.70 | 0.73 | 0.42 | |
| Uzbek | 0.26 | 0.27 | 0.25 | -0.31 | |
| Years of schooling | 10.9 | 10.8 | 10.9 | 1.01 | |
| Employed | 0.50 | 0.48 | 0.51 | 0.69 | |
| Inactive | 0.47 | 0.49 | 0.46 | -0.75 | |
| Number of chronic illnesses | 0.64 | 0.61 | 0.66 | 0.68 | |
| Risk taking attitude, 1->5 | 3.2 | 3.1 | 3.2 | 0.86 | |
| Overall life satisfation, 0-10 | 6.9 | 7.2 | 6.7 | -2.57 | ** |
| Satisfation with community life, 0-10 | 7.1 | 7.1 | 7.0 | -0.62 | |
| Sample size | 6,343 | 2,508 | 3,835 | | |

Source: Baseline Survey for the Social Cohesion Project, 2014.
The mean differences on individual indicators between control and pilot (treatment) communities are tested using t-test. Significant differences are indicated by * (p<0.1), ** (p<0.05), *** (p<0.01).

The indicators in Table 5 correspond to the nine groups of outcomes that were elaborated in Section 2.3 and suggested in the baseline stage of the project (Esenaliev et al. 2016). In the baseline report we hypothesized the project may influence individual perceptions and behavior. The outcomes fall into the following categories: 1) trust in community members and in general; 2) unity in co-living; 3) respect to ethnic differences; 4) sense of belonging; 5) civic engagement; 6) trust in local administration; 7) trust in informal leaders; 8) participation in local decision making; and 9) satisfaction with local public services. There are no differences between individuals in pilot and control groups in majority of outcomes, except answers on identity, helpfulness, perceptions of security, and interactions with people of different background.

At the baseline, interpersonal trust levels are relatively high. Each trust variable is measured from 1 ('*No trust*') to 4 ('*Complete trust*'). On average, individuals trust each other (the values are larger than 3). However, people tend to trust individuals

of different ethnicity (2.7) less than of their own ethnicity (3.0). Attitudes and perceptions of people of different ethnic group are on average also high. "People of different social backgrounds get on well together", "I have meaningful interactions with people from different backgrounds", and "Ethnic differences between people are respected" have the average values of 3 out of 4. In terms of self-identity, people see themselves strongly as members of the village and ethnic group (3.5 and 3.6 out of 4, respectively).

**Table 5: Balance test of outcome indicators at individual level**

| Indicator | Total mean | Control | Pilot | t-stat | |
|---|---|---|---|---|---|
| General trust to people | 3.5 | 3.6 | 3.5 | -1.26 | |
| Trust in people in village | 3.2 | 3.3 | 3.2 | -0.39 | |
| Trust in people of different ethnicity | 2.7 | 2.7 | 2.7 | -0.02 | |
| People of diff. backgrounds get on well together | 3.1 | 3.1 | 3.1 | 0.58 | |
| Meaningful interaction w.people from diff. backgrounds | 3.1 | 3.2 | 3.0 | -2.52 | ** |
| Ethnic differences between people are respected | 3.2 | 3.2 | 3.1 | -1.95 | * |
| I see myself as a member of my neighborhood | 3.5 | 3.5 | 3.6 | 2.24 | ** |
| I see myself as a member of my village | 3.5 | 3.5 | 3.6 | 2.01 | ** |
| I see myself as a member of my ethnic group | 3.6 | 3.4 | 3.6 | 2.59 | *** |
| Trust to sub-district governor | 3.0 | 3.0 | 2.9 | -1.27 | |
| Trust to sub-district parliament | 3.0 | 3.0 | 3.0 | -0.14 | |
| Trust to informal leaders | 3.2 | 3.2 | 3.2 | -0.87 | |
| Local administration & parliament treat people fairly | 2.9 | 3.0 | 2.9 | -1.41 | |
| Local and district administration are attentive & solve problems | 0.30 | 0.29 | 0.31 | 0.41 | |
| Community members can participate in meetings of local authorities | 3.0 | 3.0 | 3.0 | -0.41 | |
| Informed well about activities of local administration | 0.28 | 0.27 | 0.28 | 0.41 | |
| Always votes in elections | 0.76 | 0.77 | 0.75 | -0.51 | |
| Voted in the last local election | 0.92 | 0.93 | 0.91 | -1.22 | |
| Participated in civic activities | 0.34 | 0.36 | 0.33 | -0.75 | |
| Satisfaction with education services | 3.28 | 3.37 | 3.23 | -1.77 | * |
| Satisfaction with health services | 3.28 | 3.37 | 3.22 | -2.15 | ** |
| Feels safe in the neighborhood during day | 3.4 | 3.6 | 3.3 | -2.07 | ** |
| Feels safe in the neighborhood during night | 3.0 | 3.2 | 2.8 | -3.06 | *** |
| Sample size, # of respondents | 6,343 | 2,508 | 3,835 | | |

Source: Baseline Survey for the Social Cohesion Project, 2014.
The mean differences on individual indicators between control and pilot (treatment) communities are tested using t-test. Significant differences are indicated by * (p<0.1), ** (p<0.05), *** (p<0.01).

Institutional trust measured as trust towards sub-district governor, sub-district parliament, and informal leaders is high at baseline (3 or over in a scale from 1 to 4). Perceptions of fairness ("Local administration and *kenesh* treat people fairly") are also relatively high. The perceptions of the levels of security are high (3 out of 4). Interestingly, civic participation in the villages is also quite high: about 76 per cent of people vote in the elections, and 92 per cent of people voted in the last local election.

*Difference-in-Differences Analysis*

This section presents the results of the difference-in-difference estimates by comparing the differences in outcomes between treatment and control communities before and after the intervention took place[2]. In doing so, we present in Table 6 the coefficients of estimates, $\delta$, and in addition we include standard errors of estimates which are necessary to also show the precision of the estimates as evidenced by t-stat results. We exploit the standard notion of marking the significance of the results at the three conventional levels, with 10%, 5%, and 1% of error rate. We interpret the results as significant at 5% error rate and lower. The estimation specification presented includes all the control variables at the individual, household and village levels. We take the estimation with the control variables as a main specification and cluster the standard errors at the village level. The specification of the estimations going from the simple, non-control version – to the full controls show that the results stay relatively stable across specifications. We believe that the control variables included, allows us to consider the key differences between the control and treatment sites.

The difference-in-difference results at the individual level show that the programme had some positive effects on 1) the sense of unity and respect between various social and ethnic groups, 2) participation in voting at national and local elections, and 3) the sense of physical security in their neighbourhoods. At the same time, we noted some negative effects to the sense of belonging. We did not find any statistically meaningful effects on trust in people and on trust in local government as our theory of change predicted. The direct outcomes of the CDD programme, such as improved local services and governance resulted from the mobilization and investment efforts, point to some marginal improvements, such as a more positive assessment of local authorities' work and improved satisfaction with educational services.

All in all, our interpretation is that the project intervention activities have created a momentum of unity and cooperation, and a perception of improvements in local governance and educational services, but the programme had a weak or no effect on deep-trenched perceptions, attitudes and trust in immediate social groups and local institutions. We tend to refer these results to the fact that the lifetime of the CDD interventions was rather short and that the micro-projects were realized in about a quarter of villages in treatment sub-districts addressing one development need. On the whole, the intervention activities were not likely to affect normal life in a substantial way.

[2] We do not present the results for the midline survey, though it is planned to be incorporated in the later versions of the report.

**Table 6: Difference-in-differences analysis at individual level**

| Outcome indicator | DID coeff. | SE | t-stat | Sample |
|---|---|---|---|---|
| General trust to people | 0.17 | 0.10 | 1.69 * | 12,426 |
| Trust in people in village | 0.00 | 0.08 | -0.04 | 12,301 |
| Trust in people of different ethnicity | -0.01 | 0.12 | -0.05 | 11,673 |
| People of different backgrounds get on well together | 0.11 | 0.09 | 1.23 | 12,458 |
| Meaningful interaction with people from different background | 0.30 | 0.10 | 2.89 *** | 12,428 |
| Ethnic differences between people are respected | 0.26 | 0.10 | 2.62 *** | 11,690 |
| I see myself as a member of my neighborhood | -0.25 | 0.08 | -2.92 *** | 12,466 |
| I see myself as a member of my village | -0.19 | 0.09 | -2.05 ** | 12,495 |
| I see myself as a member of my ethnic group | -0.27 | 0.11 | -2.57 ** | 12,134 |
| Always votes in elections | 0.09 | 0.05 | 2.02 ** | 12,615 |
| Voted in the last local election | 0.06 | 0.02 | 2.67 *** | 11,926 |
| Participated in civic activities | -0.02 | 0.06 | -0.36 | 12,624 |
| Trust to sub-district governor | -0.01 | 0.10 | -0.09 | 12,133 |
| Trust to sub-district parliament | -0.09 | 0.10 | -0.95 | 12,050 |
| Trust to informal leaders | -0.08 | 0.09 | -0.89 | 12,162 |
| Local administration & parliament treat people fairly | 0.19 | 0.11 | 1.69 * | 12,411 |
| Community members can participate in meetings of local authorities | 0.02 | 0.11 | 0.15 | 12,414 |
| Local and district administration are attentive & solve problems | 0.08 | 0.07 | 1.03 | 12,627 |
| Satisfaction with education services | 0.19 | 0.11 | 1.76 * | 12,398 |
| Satisfaction with health services | 0.08 | 0.09 | 0.84 | 12,513 |
| Feels safe in the neighborhood during day | 0.26 | 0.13 | 1.92 * | 12,544 |
| Feels safe in the neighborhood during night | 0.33 | 0.15 | 2.18 ** | 12,436 |

Source: Baseline and Endline surveys of the Social Cohesion Project, 2014 and 2017.
Note: The results are difference-in-differences estimations at indivdiual level including individual, household, and village controls. The standard errors (SE) are clustered at village level. Significant effects are marked by '*' if p ≤ 0.1; '**' if p≤0.05, and by '***' if p≤0.01.

A group of outcomes in the category "Trust in people", which is represented by three questions here show some increase in general trust, but no change in trust to their village residents and other ethnic groups. This seems to counteract to the predictions of the contact theory, but as these findings demonstrate, trust to people has not improved. We tend to interpret this finding in the following three ways. First, the baseline level of trust was already high in those immediate groups. For example, the level of trust in neighbours was on average 3.2 on a scale from 1 to 4. The level of trust in other ethnic groups stood at 2.7 in the baseline data, which is relatively high. Secondly, people's trust cannot change quickly because of one CDD project that was present in their lives for a relatively short period of time. Thirdly, the measurement scale is maybe not the best tool to capture moderate change if there was some change happened in the level of trust. It is not clear how much intervention is needed to move a person's response from "Trust somewhat" to

"Trust fully". Perhaps, a more nuanced measurement scale from 1 to 10 could better capture subtle changes in people's trust in others.

The noted positive effects of creating a constructive environment in community life are in line with the expectations of CDD's theory of change as we observed more positive assessment in statements such as "Meaningful interactions with people of different background" and "Ethnic differences between people are respected". These results are the most stable and positive results from this study. Largely, the programme activities seem to create a more constructive and cooperative environment in the pilot communities. The level of endorsement of these two statements is higher for about 10% and 8%, respectively in the pilot sub-districts compared to the average baseline level of both groups.

Two other areas of positive effect are observed in the higher level of voting during the elections and in safety perceptions. Both effects cannot be predicted directly from the CDD theory of change. We do not know for sure if the pilot communities had more cases of holding local parliamentary elections or if it is one of the unintended positive effects of the programme. The increased sense of security can be attributed to some direct effects of the micro-project investments, such as installation of street lights, but also to more trustful relations and safer environment due to the project activities. These results are generally in line with the intentions of the mini-project investments to improve public services, such as in the education sector where out of 22 mini-projects about a quarter were directed to improve school and pre-school infrastructure.

One of the negative effects of the programme is a reduced sense of belonging (also called identification) in the treatment communities which somehow goes against the other positive effects. However, these results are robust and stable across various specifications. One explanation concerns the reaction of the villages that did not win a micro-grant from the project. As discussed in intervention description, micro-grants were provided to implement an infrastructure project in 25 villages in 15 sub-districts which in total has 64 villages. As a result, the other 39 villages had no visible benefit from the project but might have invested time and effort during the mobilization stage. As we are aware from the qualitative research, some sub-districts have a constructive '*next is your turn'* approach in distributing development aid (Schröder 2018). However, some sub-districts might have had less constructive, more competitive or less participatory processes which might have resulted in a declined sense of belonging when not all voices were heard or taken into account. The other potential reason could be that the legal knowledge provided as part of the extended CDD+ interventions made people aware that their situation is not as good as it could be. This finding is in line with the results of the impact evaluation study of a peacebuilding education programme Living SidebySide in

which the students in control schools featured a declined sense of belonging after the programme (Aladysheva et al. 2017).

However, we also propose another, more positive interpretation of the results in *Identification* indicators. These results may also imply that the project widened identity borders. If individuals had strongly associated themselves before with others surrounding them based on location, ethnicity, or other identity traits, they may have had a "positive bias" towards individuals of the same identity (for example, in voting towards leaders of the same ethnic group), and a 'negative' one towards out-group members. When identity borders become blurred – for example, because of the project's intervention activities directed to catalyse community initiatives and bring about a change - it may create a more attentive and less biased view towards other groups and lead to a less segregated and more tolerant society.

We do not find any effect on governance-related indicators that are part of the CDD's theory of change. For instance, we do not find any effect on trust in local leadership or positive perception in the effectiveness of local administration. The only marginal and positive effect is noted in the statement 'The local administration and parliament treat all people fairly'. These results may be linked to implementation issues as some case studies point to a less ideal fulfilment of the requirements of MSDSP by the working groups and local administrations. For example, the case study in one of the sites reveal that not all the potential beneficiaries were contacted and consulted about the selected mini-project (Ismanbaeva 2017). The population's weak interaction and connection with local government was also revealed in the qualitative research that complemented the quantitative evaluation. As revealed in Schröder (2018), the local administrations are mostly present during the 'good' times by conducting ceremonial roles in celebrations and other community events. The development needs are vast in most rural areas and the local budgets are thin that means local government is often unable to address the needs of the population. Such development aid as project *BIRGE* is quite common in rural areas as evidenced by the baseline survey which revealed that about 92% of pilot villages had some sort of development project implemented in the previous three years.

The project interventions were not visible to everyone in the treatment communities. As discussed in Chapter 2, the sample of respondents was drawn on a random basis and given that some of the sub-districts were quite large with up to 10-11 villages with only one of the villages set to receive a micro-grant, it is not really clear what level of exposure is expected from the programme. As the endline survey data show (Table 7), about 25% of adult respondents have heard about the project. This rate of awareness is more or less comparable across gender and ethnicity, but there is a stark difference between Naryn where 64% of respondents have heard about the project and Osh, where the rate of awareness is 20%. The participation rate in the project meetings was about 5% of respondents which is in

line with the estimates from the attendance rate of local budget hearings in Kyrgyzstan (Esenaliev and Kisunko 2015). Again, Naryn stands out in terms of having 25% of surveyed residents taking part in project-initiated meetings. The rate of participation in the project activities was about 0.5%.

Among the respondents who know about the project, the rate of decision-making power, ownership and endorsement of the project activities is about 50%. There are, however, notable differences along gender, ethnic and regional lines. Those who are male, Kyrgyz, and Naryn residents seem to rate the decision-making power and relevance of the project activities higher than female, non-Kyrgyz, and Osh residents. For example, if 92% of Naryn respondents (who know about the project) think that the project meets their needs, the corresponding number is 31% in Osh oblast. Clearly, these numbers point out that in the smaller communities - as it is case with Naryn oblast – CDD projects have a chance to succeed as the number of beneficiaries is larger per one dollar granted and the participation rate is higher that leads to a good use of the micro-grants.

**Table 7: Awareness about and participation in the project intervention**

| **Indicator** | All pilot | Female | Male | Kyrgyz | Non-Kyrgyz | Naryn | Osh |
|---|---|---|---|---|---|---|---|
| *% of positive responses from all respondents* | | | | | | | |
| Knows about the project | 24.7 | 22.5 | 27.0 | 21.8 | 32.3 | 63.9 | 19.8 |
| Attended project meetings | 5.3 | 4.5 | 6.0 | 5.4 | 4.8 | 25.1 | 2.8 |
| Participated in project activities | 0.5 | 0.3 | 0.6 | 0.4 | 0.5 | 0.6 | 0.4 |
| *% of positive responses of the respondents who know about the project* | | | | | | | |
| My voice matters in project decisions | 50 | 41 | 57 | 58 | 35 | 82 | 37 |
| We own the project&responsible for it | 54 | 49 | 58 | 66 | 33 | 94 | 38 |
| Project meets our needs | 49 | 46 | 51 | 64 | 22 | 92 | 31 |
| # of individuals | 4,149 | 2,102 | 2,047 | 2,998 | 1,151 | 463 | 3,686 |

Source: Social Cohesion endline survey, 2017

*Standard CDD and CDD+: Was There Any Effect?*

The key question of this research project was whether targeted activities to foster social cohesion can be achieved in an enhanced CDD framework. To answer this question, we present the results of the difference-in-differences analysis by separately showing the effects of the standard CDD approach and of the CDD+ approach each in comparison to the control communities. In addition, we compare the results of the two intervention approaches, CDD and CDD+. The general conclusion from the results presented in Table 8 is that we do not observe much difference between the two approaches both when compared separately to the control group, and when compared to each other. Largely, the results remain consistent and comparable when both types of communities are compared to the control communities.

**Table 8: Standard and enhanced CDD approaches**

| Outcome indicator | Total | CDD | CDD+ | CDD+ vs CDD |
|---|---|---|---|---|
| General trust to people | 0.17 * | 0.14 | 0.22 * | 0.03 |
| Trust in people in village | 0.00 | 0.00 | -0.01 | -0.09 |
| Trust in people of different ethnicity | -0.01 | -0.02 | -0.01 | -0.05 |
| People of different backgrounds get on well together | 0.11 | 0.11 | 0.10 | -0.08 |
| Meaningful interaction with people from different background | 0.30 *** | 0.34 *** | 0.25 ** | -0.20 |
| Ethnic differences between people are respected | 0.26 *** | 0.29 ** | 0.22 * | -0.19 |
| I see myself as a member of my neighborhood | -0.25 *** | -0.20 ** | -0.28 *** | -0.12 |
| I see myself as a member of my village | -0.19 ** | -0.11 | -0.26 ** | -0.16 |
| I see myself as a member of my ethnic group | -0.27 ** | -0.26 ** | -0.28 ** | -0.13 |
| Always votes in elections | 0.09 ** | 0.09 * | 0.10 * | -0.04 |
| Voted in the last local election | 0.06 *** | 0.07 ** | 0.05 ** | -0.03 |
| Participated in civic activities | -0.02 | -0.05 | 0.01 | 0.06 |
| Trust to sub-district governor | -0.01 | 0.03 | -0.08 | -0.16 |
| Trust to sub-district parliament | -0.09 | -0.09 | -0.08 | 0.00 |
| Trust to informal leaders | -0.08 | -0.03 | -0.15 | -0.16 |
| Local administration & kenesh treat people fairly | 0.19 * | 0.18 | 0.18 | -0.09 |
| Community members can participate in meetings of local authorities | 0.02 | 0.07 | -0.04 | -0.21 |
| Local and district administration are attentive & solve problems | 0.08 | 0.10 | 0.06 | -0.04 |
| Satisfaction with education services | 0.19 * | 0.26 ** | 0.11 | -0.25 * |
| Satisfaction with health services | 0.08 | 0.10 | 0.04 | -0.11 |
| Feels safe in the neighborhood during day | 0.26 * | 0.13 | 0.35 * | 0.09 |
| Feels safe in the neighborhood during night | 0.33 ** | 0.25 | 0.39 ** | -0.01 |
| Sample size, individuals | 12,426 | 6,359 | 6,067 | 8,918 |

Source: Baseline and Endline surveys of the Social Cohesion Project, 2014 and 2017.
Note: The results are difference-in-differences estimations at indivdiual level including individual, household, and village controls. The standard errors are clustered at village level. Significant effects are marked by '*' if p ≤ 0.1; '**' if p≤0.05, and by '***' if p≤0.01.

However, there are a few interesting nuances related to CDD+ communities. First, the coefficients for the indicators measuring the sense of belonging have larger estimate coefficients and are more robust. Secondly, the perception of security seems to be driven very much by CDD+ communities where the effects are larger and statistically more reliable. Likewise, the CDD+ approach does not seem to have any exceptional effect compared to the CDD standard approach. With the exception

of satisfaction with educational services, there are no statistically significant differences between the two treatment groups.

There are several reasons that help explain the similarity of the effects of the two CDD approaches. These reasons relate to timing and contamination factors. First, the intervention activities were intensely concentrated in the last two years of the project lifetime. This is partly related to the innovative and experimental nature of both research and intervention components which necessitated delays in the project. Second, the CDD+ activities were also suggested in the standard CDD communities, and thus, the distinction between the standard CDD and advanced CDD+ approaches were not entirely clear. MSDSP provided the trainings to build the capacity of local authorities also for the standard CDD sub-districts as discussed in Figure 1 in Chapter 2.

*Sub-group Analysis: Gender, Ethnicity, Regions*

This section describes the results of the difference-in-differences estimates based on gender, ethnicity, and between the two regions in the study, Naryn and Osh oblasts. This analysis is the extension of the results presented in the previous section using the data at individual level.

Gender does not seem to play a distinct role in the effects of the programme on social cohesion indicators, but there are important outcomes which had stronger effects on female respondents. The results presented in Table 9 show that the effects are largely similar for both men and women. Notable larger effects for female are recorded in voting in elections and an increased sense of security in the neighbourhood. Female responses practically drive the marginally significant result in perceptions of good work done by local authorities.

An important finding derived from the analysis done separately for Kyrgyz and non-Kyrgyz ethnic groups is that the results are entirely driven by the former group. We see practically zero effect of the programme on ethnic minorities, besides for two negative outcomes which do not appear significant in the aggregate results. For example, the minority ethnic groups seem to trust less their co-villages as well as local parliaments as a result of the programme activities. This result seems to be going against the expectations of the programme which make efforts to involve ethnic minorities in community life and the implementation of the programme's activities.

**Table 9: Difference-in-differences analysis by gender and ethnicity**

| Outcome indicator | Total | Female | Male | Kyrgyz | Non-Kyrgyz |
|---|---|---|---|---|---|
| General trust to people | 0.17 * | 0.13 | 0.20 * | 0.17 | 0.09 |
| Trust in people in village | 0.00 | 0.01 | -0.01 | 0.09 | -0.29 ** |
| Trust in people of different ethnicity | -0.01 | -0.03 | 0.02 | 0.05 | -0.17 |
| People of different backgrounds get on well together | 0.11 | 0.09 | 0.14 | 0.15 | -0.05 |
| Meaningful interaction with people from different background | 0.30 *** | 0.27 *** | 0.33 *** | 0.35 *** | 0.12 |
| Ethnic differences between people are respected | 0.26 *** | 0.25 ** | 0.26 *** | 0.31 *** | 0.16 |
| I see myself as a member of my neighborhood | -0.25 *** | -0.26 *** | -0.23 *** | -0.28 *** | -0.18 |
| I see myself as a member of my village | -0.19 ** | -0.21 ** | -0.16 * | -0.20 ** | -0.21 |
| I see myself as a member of my ethnic group | -0.27 ** | -0.31 *** | -0.23 ** | -0.36 *** | -0.05 |
| Always votes in elections | 0.09 ** | 0.11 ** | 0.08 * | 0.11 ** | 0.09 |
| Voted in the last local election | 0.06 *** | 0.07 *** | 0.05 ** | 0.06 *** | 0.06 |
| Participated in civic activities | -0.02 | -0.02 | -0.01 | -0.05 | 0.05 |
| Trust to sub-district governor | -0.01 | 0.01 | -0.03 | 0.07 | -0.25 |
| Trust to sub-district parliament | -0.09 | -0.08 | -0.10 | -0.01 | -0.32 * |
| Trust to informal leaders | -0.08 | -0.07 | -0.09 | -0.12 | 0.01 |
| Local administration & kenesh treat people fairly | 0.19 * | 0.21 * | 0.16 | 0.28 ** | -0.01 |
| Community members can participate in meetings of local authorities | 0.02 | 0.05 | -0.01 | 0.14 | -0.24 |
| Local and district administration are attentive & solve problems | 0.08 | 0.06 | 0.10 | 0.09 | -0.01 |
| Satisfaction with education services | 0.19 * | 0.19 * | 0.19 * | 0.23 * | 0.06 |
| Satisfaction with health services | 0.08 | 0.06 | 0.09 | 0.09 | 0.03 |
| Feels safe in the neighborhood during day | 0.26 * | 0.28 ** | 0.23 * | 0.25 * | 0.21 |
| Feels safe in the neighborhood during night | 0.33 ** | 0.37 ** | 0.29 * | 0.33 * | 0.35 |
| Sample size, individuals | 12,426 | 6,359 | 6,067 | 8,918 | 3,508 |

Source: Baseline and Endline surveys of the Social Cohesion Project, 2014 and 2017.

Note: The results are difference-in-differences estimations at indivdiual level including individual, household, and village controls. The standard errors are clustered at village level. Significant effects are marked by '*' if p ≤ 0.1; '**' if p≤0.05, and by '***' if p≤0.01.

The next disaggregation looks separately at Osh and Naryn oblasts, but also at the mono- and multi-ethnic sub-districts. Naryn oblast residents exhibit more trust in people and more positive and meaningful interaction with people. However, the rest of the programme effects are absent for Naryn oblast, and thus, are mainly driven by Osh oblast. To illustrate this, more political participation is driven by Osh residents, as is satisfaction with security and educational services.

**Table 10: Difference-in-differences analysis by regions**

| Outcome indicator | Total | Mono | Multi | Naryn | Osh |
|---|---|---|---|---|---|
| General trust to people | 0.17 * | 0.23 | 0.14 | 0.21 ** | 0.16 |
| Trust in people in village | 0.00 | 0.21 * | -0.07 | 0.02 | -0.02 |
| Trust in people of different ethnicity | -0.01 | 0.23 | -0.10 | 0.41 ** | -0.07 |
| People of different backgrounds get on well together | 0.11 | 0.30 * | 0.04 | 0.19 | 0.09 |
| Meaningful interaction with people from different background | 0.30 *** | 0.48 ** | 0.21 * | 0.33 *** | 0.26 ** |
| Ethnic differences between people are respected | 0.26 *** | 0.36 * | 0.20 * | 0.24 | 0.24 ** |
| I see myself as a member of my neighborhood | -0.25 *** | -0.06 | -0.25 *** | -0.26 * | -0.26 *** |
| I see myself as a member of my village | -0.19 ** | 0.00 | -0.20 * | -0.20 ** | -0.19 * |
| I see myself as a member of my ethnic group | -0.27 ** | -0.29 ** | -0.25 ** | -0.24 | -0.26 ** |
| Always votes in elections | 0.09 ** | -0.07 | 0.12 ** | -0.01 | 0.10 * |
| Voted in the last local election | 0.06 *** | 0.03 | 0.06 ** | 0.04 | 0.06 ** |
| Participated in civic activities | -0.02 | -0.16 | 0.03 | 0.08 | -0.03 |
| Trust to sub-district governor | -0.01 | 0.05 | -0.09 | 0.17 | -0.02 |
| Trust to sub-district parliament | -0.09 | -0.07 | -0.15 | 0.02 | -0.10 |
| Trust to informal leaders | -0.08 | 0.04 | -0.14 | -0.25 | -0.05 |
| Local administration & kenesh treat people fairly | 0.19 * | 0.34 ** | 0.12 | 0.19 | 0.20 * |
| Community members can participate in meetings of local authorities | 0.02 | 0.02 | 0.01 | -0.11 | 0.02 |
| Local and district administration are attentive & solve problems | 0.08 | 0.14 | 0.07 | -0.01 | 0.09 |
| Satisfaction with education services | 0.19 * | -0.04 | 0.22 * | -0.01 | 0.20 * |
| Satisfaction with health services | 0.08 | -0.25 * | 0.13 | 0.06 | 0.07 |
| Feels safe in the neighborhood during day | 0.26 * | 0.66 ** | 0.13 | 0.74 | 0.23 * |
| Feels safe in the neighborhood during night | 0.33 ** | 0.42 | 0.26 | 0.16 | 0.35 ** |
| Sample size, individuals | 12,426 | 2,690 | 9,736 | 1,231 | 11,195 |

Source: Baseline and Endline surveys of the Social Cohesion Project, 2014 and 2017.
Note: The results are difference-in-differences estimations at indivdiual level including individual, household, and village controls. The standard errors are clustered at village level. Significant effects are marked by '*' if p ≤ 0.1; '**' if p≤0.05, and by '***' if p≤0.01. "Multi" means multi-ethnic sub-districts in which prevalence of one ethnic group is less than 90% of its population.

*Analysis of Aggregated Outcomes*

To enrich the difference-and-differences analysis at the individual level, we constructed the index of social cohesion at the individual level as presented in Table 11 below. As can be seen, the table replicates the nine dimensions and three domains of the social cohesion index. As we conducted the difference-in-differences analysis based on the aggregated level of the dimensions and domains, we see the

negative effects in Identification and Solidarity/Helpfulness being sustained at this level, but all the positive effects are cancelled out. As we go to the domains level, the negative effects also cancel out and there is lack of any effect of the CDD programme if to use the overall index as an outcome. This finding – when compared to individual outcome indicators – point out that the aggregate indicators may hide nuanced effects of the programme and when we have detailed information, it helps to see what is happening behind the averaged results based on an aggregate indicator.

**Table 11: Difference-in-differences analysis based on broad outcome indicators**

| Domains and Dimensions | DID coeff. | SE | t-stat | Sample |
|---|---|---|---|---|
| D1.1 Social Networks | -0.01 | 0.22 | -0.06 | 12,649 |
| D1.2 Trust in People | 0.01 | 0.23 | 0.05 | 12,548 |
| D1.3 Acceptance of Diversity | 0.30 | 0.23 | 1.32 | 12,552 |
| D2.1 Identification | -0.68 | 0.26 | -2.58 *** | 12,526 |
| D2.2 Trust in Institutions | -0.21 | 0.29 | -0.73 | 12,476 |
| D2.3 Perception of Fairness | 0.40 | 0.32 | 1.25 | 12,627 |
| D3.1 Solidarity and Helpfulness | -0.66 | 0.29 | -2.27 ** | 12,637 |
| D3.2 Respect for Social Rules | 0.34 | 0.34 | 1.01 | 12,580 |
| D3.3 Civic Participation | -0.08 | 0.23 | -0.35 | 12,649 |
| Domain 1: Social Relations | 0.13 | 0.15 | 0.86 | 12,649 |
| Domain 2: Connectedness | -0.16 | 0.20 | -0.80 | 12,641 |
| Domain 3: Focus on the Common Good | -0.14 | 0.18 | -0.76 | 12,649 |
| Social Cohesion Index | -0.06 | 0.14 | -0.40 | 12,649 |

Source: Baseline and Endline surveys of the Social Cohesion Project, 2014 and 2017.
Note: The results are difference-in-differences estimations at indivdiual level including individual, household, and village controls. The standard errors are clustered at village level. Significant effects are marked by '*' if p ≤ 0.1; '**' if p≤0.05, and by '***' if p≤0.01.

## 5. DISCUSSION

*Key Lessons for Future Work*

*The timing of the intervention and impact evaluation was quite short.* By the time of the endline data collection, some of the micro-projects were still in process, so in terms of seeing direct effects for the beneficiaries, and also the effects of the increased capacity of local governments, the time for measurement of the programme effects seems to be short. Many development interventions are restricted to the donor's project cycles and are thus restricted as a result thereof. In this respect, multi-year and multi-cycle interventions would probably allow the potential benefits of the CDD approach to materialize. As social cohesion is a slow changing phenomenon, planning to measure social cohesion several years (say three years) after the intervention ended may also help identify its true impact.

*Size of micro-grants per capita varied* across the sub-districts and seems to have had an effect on participation and on the endorsement of the micro-projects as it appears so in Naryn. The coverage of the interventions is small to see any change in large sub-districts. Thus, it stands to reason that larger and longer CDD projects would have had larger impacts on social cohesion as well.

*CDD interventions have limits generating citizen involvement within communities*. At best, CDD programmes seem to be a partial tool to foster local social cohesion. However, CDD depends on other factors that go beyond local social norms and local governance and that are also related to national policies and developments.

*This project offers a deeper testing ground for the Social Cohesion Radar methodology.* Given its adoption, this project offers a focused and multilevel analysis of the methodology in the case of Kyrgyzstan. The Kyrgyz case is probably the deepest case as it has data collected at the individual level and higher levels, and was done three times over the course of four years and is based on a panel of respondents; finally, the data can be compared at both regional and national levels. This allows for a deep contribution to be made on the question of determinants and outcomes of social cohesion; the use of the Social Cohesion Radar methodology for programming purposes and lays out the foundation for the application of the Radar in other settings. Future research may look at results using the Radar methodology in various country settings (Bertelsmann Stiftung 2017; Delhey and Dragolov 2016; Dragolov et al. 2016).

*The social cohesion index is a new tool that needs more testing and research*. While the underlying indicators in the data collected have a relevance to the Kyrgyz context, we are far from making a locally contextualized measurement framework. For example, the results from the social cohesion index point out that the weakest dimensions are *Social Networks,* and *Solidarity/Helpfulness*. From local knowledge and previous research (Kuehnast and Dudwick 2004) we know that the Kyrgyz population invests a lot of time and resources to maintain their social capital. The same goes for *Solidarity/Helpfulness* - we know that people help each other out a lot. It is felt that perhaps we are not capturing the depth and quality of social networks and interactions. For example, higher social capital is associated with participation in a larger number of formal and informal groups, but also with the quantity of financial and non-financial help. While we tried to ask for all types of informal and formal groups, the mere larger number of memberships may not reflect the strength of social capital. The same goes for solidarity indicators in which the quantity of help provided or received from others is not a sign of the whole indicator as the underlying assumption is that all people have similar needs in getting help and similarly are asked for help from others.

*The index was used for fine-tuning the intervention activities.* The social cohesion index has good merits to be used as a diagnostic tool but also as a communication tool. As soon as the index results were released, it was used by MSDSP KG to understand what levels and which dimensions are strong or weak in the treatment sub-districts. The information was useful to get a sense of the sub-districts in which social cohesion was low. In addition, the social cohesion index was used to communicate with the population of the treatment sub-districts in order to provide information and catalyse discussions about community issues.

*Qualitative research helped to study deeper the realities of the local population and the environment around the programme*. Ideally, the qualitative research could have be conducted first to localize the concepts, and correspondingly, to better design data collection tools and more precisely measure the outcome and corresponding indicators. The definition of community is one example. A study by Schroeder (2018) points to the notion of community as a neighbourhood – several households forming a supportive, cooperative network. As we know from reality, a Kyrgyz village is divided into parts based on kinship networks, and as groups, they have established relations and norms (Gullette 2007). These kinships give society as a whole an identity even in small villages, and we are not yet sure yet how bonding mechanisms of social capital interact with invasive 'bridging' developments, such as CDD.

*The research findings from this project closely correspond to the evidence from the recent 3ie synthetic review of CDD outcomes.* The recent synthetic review of CDD outcomes done by 3ie (White et al. 2018) point to the lack of evidence on the ability of CDD to improve social cohesion. With our project showing some effects on social cohesion, we are in a beneficial position to contribute to this discourse as the research design encompasses large sampled data at various levels, allowing the impact of the programme on social cohesion at individual and community levels to be measured.

## 6. CONCLUSION

The rationale for the CDD intervention is that the process of implementation of a programme induces community members to work together. In this process, they gain more understanding about other social groups and local leadership. By working together towards a common goal, community members become more cooperative and gain trust. Furthermore, these impacts of the process can be reinforced by the public goods that a CDD project eventually delivers, such as clinics, roads, or access to clean water. These goods should address economic, health, or infrastructure needs and might have a further, re-enforcing positive effect on

community cohesion by improving living conditions, ensuring quality public services, and creating space for engagement.

We find empirical support for some of these ideas. The results indicate that the programme has had some positive effects on 1) a sense of unity and respect between various social and ethnic groups, 2) participation in voting at national and local elections, and 3) a sense of physical security in the neighbourhoods. At the same time, we identify some negative effects in the sense of belonging, which can be interpreted both positively and negatively. Importantly, and in contrast to our theory of change, we do not find any statistically significant effects on trust in other people and on trust in local government. The direct outcomes of the CDD programme, such as improved local public services resulting from the mobilization and investment efforts, point to some marginal improvements, such as a more positive assessment of local authorities' work and improved satisfaction with educational services.

In summary, our overarching findings are that, on the one hand, the CDD project led to a sense of unity and cooperation and to a perception of improvements in local governance and educational services. On the other hand, the programme had at best a weak effect on deep-trenched perceptions, attitudes and trust for closely related social groups and local institutions. We posit that these results were obtained in part because the duration of the CDD interventions was rather short and the micro-projects were realized only in a part of the treatment population.

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