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Studies on the Agricultural and Food Sector
in Transition Economies

Vasyl Kvartiuk

Participatory governance in rural development

Evidence from Ukraine

Leibniz Institute of Agricultural Development
in Transition Economies

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Vasyl Kvartiuk

December 2014

Abstract

This study deals with the current challenges of participatory governance and community-driven development (CDD) in the transition countries of the Former Soviet Union (FSU). Despite the fact that these approaches were developed in the early 90s major development agencies initiated their implementation in the FSU transition countries over a decade later. Until now there have been no major studies examining the impact of participatory and community-based approaches in this context. Particular features of the FSU transition countries including centralized governance systems along with the specificity of the population's beliefs and mental models may introduce additional challenges in the participatory governance arrangements and implementation of the CDD projects. It is, thus, of an imperative importance to understand the scope of the newly created governance arrangements within these frameworks and evaluate their impact on local development goals.

In order to approach this objective this study utilizes Ukraine as a case study representative of the broader spectrum of the FSU countries. Furthermore, I, first, provide a detailed literature overview of local public finance situation in Ukraine in conjunction with existing governance arrangements in the context of local public goods provision. It appears that Ukrainian governance structures up to this day follow Soviet hierarchical scheme when there is a strict subordination between the governmental tiers which can interfere in the affairs of the lower ones due to poorly defined jurisdictions. Consequently, budgetary resources tend to be concentrated in the higher tiers of the government leaving municipalities in highly fiscally constrained conditions unable to deal with large local fiscal needs. As a result, the situation with rural public goods in Ukraine is critical. Poor quality of rural public goods including local schools, healthcare facilities, water supply systems, waste management and others contribute to further deterioration of the quality of life in rural areas.

Since the beginning of the 2000s development agencies have been promoting establishment of third sector organizations (TSOs) in the Ukrainian communities in order to get local inhabitants engaged in the development processes and public policy decision-making. It is, however, not clear whether or to which extent the scope of these numerous newly established organizations is compatible with the goals of the development agencies. In order to address this issue I hypothesize that local governments establish community-based organizations (CBOs)

in order to expand their fundraising opportunities from private sources. Furthermore, I utilize a rich dataset from a multi-stakeholder (mayors, CBO leaders and residents) survey carried out in Ukraine early 2012 and estimate the determinants of CBOs' establishment in rural municipalities. The results suggest that rural CBOs could be considered extensions of local bureaucracies as they appear to be predominantly established in line with local governments' fundraising needs. Participation rates appear to be unrelated to the probability of establishment of the CBOs.

In general, the data indicates that participation rates in rural Ukraine are low. This may negatively impact the outcomes of the CDD initiatives. I attempt to understand the determinants of individual decision-making in rural areas with respect to the different types of participation. In particular, I examine how mental models, social trust and social information may impact the likelihood of participation. Estimation results suggest that predominant beliefs that the government should be responsible for public goods provision mitigate participation rates. Social trust appears to have a positive impact whereas social information does not appear to exert a significant effect across different types of participation. However, one may ask a question about why we should foster participation and what benefits it brings about.

In order to approach this question I estimate the impact of participation on different outcomes of public goods provision in rural Ukrainian communities. I find that participation affects some public goods more than others. This is most probably due to the fact that participation may impact those public goods with more tangible and certain returns from the point of view of the community members. In particular, it appears to be particularly relevant in the context of improving local schools and water supply systems. Furthermore, I find that water supply outcomes are likely to be better in those communities with established CBOs suggesting effectiveness of an emerging trend to establish service cooperatives for delivery of this public service. However, an established CBO appears to crowd out informal participation within a community.

There are a number of policy implications resulting from the evidence. First, since CBOs may have an institutional advantage in delivery of some public goods it is advised to continue institution-building in the community-based development efforts. On the other hand, since the evidence indicates that community members are mostly disengaged from the activities of the CBOs more resources should be devoted to awareness-raising and participation promotion activities. Specifically, locally predominant mental models should be explicitly targeted by these efforts. Third, other mechanisms encouraging participation should be promoted (e.g. conditioning donors' funding, etc.). Finally, Eastern and Southern parts of Ukraine (along with potentially other FSU transition countries) could

benefit a lot from abandoning existing water supply governance arrangements based on inefficient communal enterprises. It is, in contrast, advised to promote establishment of service cooperatives for water supply system construction/ renovation and maintenance.

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ABBREVIATIONS

2SLS	Two-stage least squares	OECD	Organization for Economic Co-operation and Development
3SLS	Three-stage least squares	OLS	Ordinary least squares
AR	Autonomous republic	PC	Personal computer
CBA	Community-based approach	PIT	Personal income tax
CBO	Community-based organization	PPP	Public-private partnership
CDD	Community-driven development	QCA	Qualitative Comparative Analysis
EU	European Union	SML	Simulated maximum likelihood
FGLS	Feasible generalized least-squares	SSR	Soviet Socialist Republic
fsQCA	Fuzzy sets Qualitative Comparative Analysis	SUR	Seemingly unrelated regressions
FSU	Former Soviet Union	TSO	Third-sector organization
GDP	Gross Domestic Product	UAH	Ukrainian Hryvnia
GLS	Generalized least squares	UCLA	University of California, Los Angeles
IMF	International Monetary Fund	UkrStat	State Statistics Service of Ukraine
IRD	Integrated Rural Development	UNDP	United Nations Development Program

IV	Instrumental Variable	USD	United States Dollar
MDG	Millennium Development Goal	VO	Voluntary organization
MLE	Maximum Likelihood Estimation	WB	World Bank
NBER	National Bureau of Economic Research	WHO	World Health Organization
NGO	Non-governmental organization	ZIP	Zero-inflated Poisson
NUTS	Nomenclature of Units for Territorial Statistics		

INTRODUCTION

The beginning of the 90s has marked a major shift in approaches to local governance across the world. Citizens' participation has been encouraged in major domains of public policy in the developed as well as the developing world (AVRITZER, 2002). Over the years a term has been coined – "participatory governance" – that is defined as a system of institutional arrangements that "… facilitate the participation of ordinary citizens in the public policy process" (ANDERSSON and VAN LAERHOVEN, 2007). The broad concept of participatory governance is closely interrelated with the trends of privatization in the 80s and 90s that sought to introduce more efficiency, innovation and democratic principles in the public services delivery process. These developments are in line with the general decentralization reforms that were happening at the same time and were called a "revolutionary megatrend" by CUMMINGS (2002) and further developed in "New Public Management" (OSBORNE and GAEBLER, 1992). These global trends have found a reflection in local development strategies as well. In particular, numerous development agencies have adopted community-based and -driven approaches to local development (WORLD BANK, 1999; WONG, 2012). They stipulate community members' involvement in planning, implementation, and monitoring of local development projects (ibid.). Bringing the recipients of the public goods (community members) and services closer to the producers and deliverers (local government, entrepreneurs or non-profit organizations) is at the heart of these reforms (WORLD BANK, 2003; ACKERMAN, 2004).

Participatory approaches have been widely implemented across the world in developed and developing countries. Development agencies, like the World Bank and the United Nations Development Program (UNDP), have been active in implementing development projects involving elements of participatory governance also in transition countries. For instance, in Ukraine UNDP alone has 5 ongoing community-based programs with a total value of ca. 70 million Euro. The focus of most of the development efforts involving participatory governance elements is on public goods and services provision. Public infrastructure network and public services are severely underfunded and to a large extent mismanaged in countries like Ukraine (WORLD BANK, 2008). Huge local needs cannot be adequately covered by the resource-constrained government (ibid.). As a consequence, development efforts are aimed at enhancing communities' self-provision capacities in a sustainable way.

The literature examining the benefits and pitfalls of participatory approaches to local development is rather abundant (e.g. HODDINOTT et al., 2001; MANSURI and

RAO, 2004; SPEER, 2012, etc.). The most common arguments in favor of citizens' involvement include better accountability and responsiveness to the needs of the recipients (BARDHAN and MOOKHERJEE, 2000), introduction of more democratic principles in local governance (BISHOP and DAVIS, 2002), and improvement of public service delivery efficiency (HODDINOTT et al., 2001; BARDHAN, 2002). Despite the growing body of literature the evidence on the effectiveness of participatory approaches in transition contexts is still limited. What is the role of community-based organizations (CBOs) in the context of local governance in transitional countries? Are there any factors related to transitional processes affecting individual decision-making with respect to participation in local governance processes? What makes a community succeed in terms of the governance outcomes? Do CBOs actually facilitate local collective action and participation in the transition context? This study is meant to deal with these and other questions that currently represent knowledge gaps in the research and practitioner area. Attempting to answer these challenging questions may drastically improve the effectiveness of the development efforts employing participatory approaches in transition countries and, as a result, save substantial amounts of public and donors' funds.

It is impossible not to notice a wide-spread trend in Ukraine concerning the establishment of non-profit organizations in rural areas. Alone UNDP within its "Community Based Approach Program" has induced an establishment of 709 community organizations by the end of 2011 (UNDP, 2011). And it was planned to double that figure in the next 3 years. UNDP provides incentives to local communities to establish these organizations offering funding for local needs determined by the communities. There are a number of other donor organizations offering targeted (to a different degree) funding (for instance, the World Bank's Social Investment Fund, German Technical Cooperation GIZ, the state program "Drinking Water", etc.). Thus, the number of the CBOs grows and fundraising opportunities for these organizations and respectively for the local communities are improving year by year. Many of the development agencies attempt to promote implementation of participatory governance elements in local communities by conditioning their funding on certain requirements to involve local inhabitants. In this context a legitimate question to ask is whether these incentives structures generate sustainable CBOs with local inhabitants actively involved. Do these organizations have a chance to survive after the implementation of a "seed" or inception project? Who are the leaders of these organizations and what is their relationship to local governments? I address these questions in the first part of the study. In particular, using the data from a recent survey from Ukraine I estimate the importance of the potential determinants of establishment of the CBOs in the communities. In particular, analyzing the available data I examine a possible link between the incentives of local governments and establishment of the CBOs. Among the major findings it is necessary to mention

that the probability of CBOs establishment is aligned with the fundraising incentives of the local government. This indicates that local governments may predominantly use CBOs as a vehicle facilitating fundraising from different sources. On the other hand, extremely weak empirical link between participation and the probability of CBOs establishment suggests that local inhabitants play little role in establishment of the CBOs.

The essence of participatory governance and CDD is a prevalence of the "bottom-up" development initiatives. That means that in order to achieve development goals a community has to be closely engaged in the local decision-making process. Development experts in Ukraine testify about low engagement levels of local inhabitants within the CDD initiatives and local public policy processes in general. For instance, the UNDP's final CBA Project Evaluation Report recommends investing resources in the promotion of community involvement and specifically to foster activism among local entrepreneurs (PANIOTTO et al., 2011). The data collected within the framework of this study indicates that only roughly 3 % of the residents report being members of a CBO. Low participation levels may introduce inefficiencies and unnecessary hindrances to the development efforts involving the principles of participatory governance. So, what are the important factors that influence individual decision-making to get engaged in a local public policy process? Are there any factors that are related to the transitional context? Addressing these questions has the potential to improve efficiency of the related development efforts and, as a result, save substantial amount of donors' and state funds channeled to the CDD programs and programs involving elements of participatory governance. I estimate the effect of some cognitive factors that are salient for the transition context on different types of local participation meaningful for effective collective action. Among the major findings is the fact that mental models about the roles of the communities and the government may to a large extent determine individual decision-making.

So far, evidence about the benefits of the approaches involving elements of participatory governance is rather weak (WONG, 2012; SPEER, 2012). Even though there is a substantial chunk of literature providing a solid theoretical background for the link between non-electoral participation and governance outcomes (e.g. ACKERMAN, 2004; COMMINS, 2007; BESLEY et al., 2005), the respective empirical link is virtually missing. Some studies find a positive effect (HELLER, 2001; SPEER, 2012; BOULDING and WAMPLER, 2010) and some don't find any connection at all (BRAEUTIGAM, 2004; SHATKIN, 2000). Substantial difficulties connected to filtering out the effect of participation on governance outcomes (since there are so many other potential controls, e.g. public finance situation, municipality characteristics, etc.) have prevented obtaining convincing results so far. Thus, even though implemented all over the world, the effectiveness of the principles

of CDD and participatory governance need to be tested empirically. In addition, to my knowledge there are no studies that have attempted to test this link in a transitional context. I attempt to address this research gap in the final part of my dissertation. In particular, I make an effort to estimate the effect of participation on the outcomes of different public goods in rural Ukrainian setting. The results suggest that participation may facilitate more improvements in the contexts when the returns of participation are more tangible and clear. In addition, CBOs appear to bring about real improvements with certain reservations to be discussed below.

The main contribution of this study is a multidimensional analysis of the current challenges of local development approaches involving participatory elements in a transitional context. It provides a thorough overview of the current gaps in the literature and of concrete practical development challenges in the context of a transition country. As these countries have started adoption of the CDD and participatory approaches roughly a decade later in comparison to the rest of the world it is vital to assess its performance. Identifying possible weaknesses and strengths of these approaches may help develop functional policies that may have a potential to save large amounts of the governmental funds and the resources of donor agencies. Thus, the value of this study is that it produces a number of concrete policy recommendations with respect to design and implementation of the development initiatives involving the principles of participatory governance.

The rest of the study is structured in the following fashion. Chapter 1 provides an overview of the institutional context in Ukraine, introduces key actors and formulates major development challenges in rural Ukraine. Chapter 2 presents the data that is used within this study including the data collection process and basic descriptive statistics. The remaining chapters could be seen as three separate but interrelated (with respect to the contents) studies that deal with the issues outlined above. Chapter 3 positions and identifies the scope of the third sector organizations (TSOs) in Ukrainian rural areas looking at local governance from the perspective of local government and its incentives to fundraise within existing fiscal constraints. On the other hand, Chapter 4 aims to identify the determinants of different types of participation relevant for the transition context. Finally, with the help of Chapter 5 I estimate the effect of participation and comparative advantage of the CBOs on local public goods outcomes. At the end, in the Section "Conclusions" I draw overall conclusions of the current study.

CHAPTER 1: INSTITUTIONAL CONTEXT

1.1 Overview

Rural development has largely remained off the agenda of the policy-makers in numerous transition countries. After the collapse of the Soviet Union the economies of the newly created states were stagnating and rural development in these countries had grossly stalled. The era of privatization and economic restructuring came. Farming was not an exception to these processes: collective farms were to be restructured in order to meet new challenges of international competitiveness (LERMAN and CSAKI, 2000). In order to improve agricultural production efficiencies restructured collective farms had to shed excess labor force; however, due to sluggish restructuring and reform process labor adjustment did not happen so quickly (ibid.). In addition, gradual privatization of land plots provided an opportunity to resort to semi-subsistence farming for many rural households that lost an opportunity of stable income from the collective farms (PERROTTA, 2002). As a result, for instance, in Ukraine the trend of decreasing rural population has stayed relatively stable over the years after gaining independence. Table 1 presents the dynamics over two decades. It is evident that only in the recent years probably due to relative improvements in urban employment opportunities rural population started decreasing at a faster pace than its urban counterpart.

Table 1: Evolution of total and rural population in Ukraine (thousands of persons)

	1994	1996	1998	2000	2002	2004	2006	2008	2010
Total population	52114.4	51297.1	50370.8	49429.8	48457.1	47622.4	46929.5	46372.7	45962.9
Rural population	16713.7	16529.2	16322.6	16091.2	15882.7	15476.0	15051.8	14703.9	14438.1
Share of rural population (%)	32.07	32.22	32.41	32.55	32.78	32.50	32.07	31.71	31.41

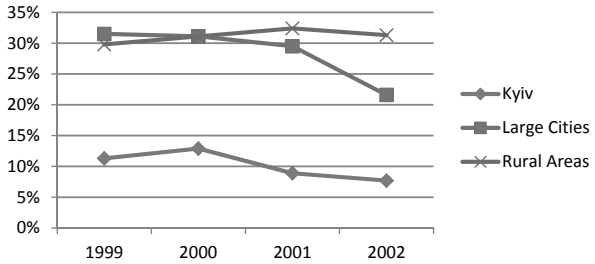
Source: Data from STATISTICAL YEARBOOKS OF UKRAINE "Population of Ukraine".

Roughly one third of Ukrainian population lives in rural areas. This is comparable with other transition countries: Russia – 26 %, Kazakhstan – 46 %, Bulgaria – 27 %, and Poland – 39 % (WORLD BANK, 2013). Even though according to the World Bank's World Development Indicators data (ibid.) urbanization is slowly advancing

in most of the transition countries, rural development will remain the determinant of the quality of life for a large part of the population for many upcoming decades. Thus, it is very important for the governments and development agencies to device effective mechanisms to move rural development forward.

Rural areas in many transition countries can be characterized by striking poverty and stagnation. Transition processes in Ukraine caused dramatic decreases in agricultural wages and, as a result, in-kind income from subsidiary land plots accounted 56 % by the turn of the millennium (WORLD BANK, 2004). Furthermore, lack of transparency during the privatization and restructuring processes resulted in substantial income disparities with wealth concentrated in the hands of a small percentage of individuals who managed to acquire formerly public assets on favorable terms. In addition, Figure 1 shows that despite of economic growth between 1999 and 2002 poverty rates[1] in rural areas largely stayed the same in comparison to the urban values. Lack of employment opportunities appears to be the main cause of rural poverty (ibid.).

Figure 1: Headcount poverty rates by location



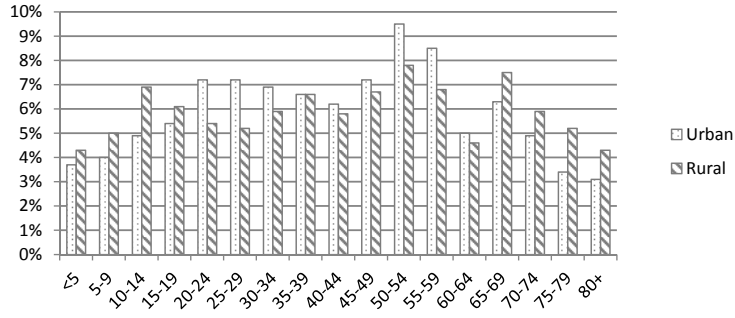
Source: WORLD BANK (2004).

The dynamics of the employment situation are striking. By 2000 roughly 1.5 million people (40 %) lost their jobs in the former collective farms (PUGACHOV, 2002). The social sphere lost one third of the jobs making 0.4 million people unemployed (ibid.). Most of these individuals resorted to subsistence agriculture as there were no employment opportunities (ibid).

Fostering rural growth and development is complicated also because of the age composition of rural population. In particular, the proportion of the population of ages <19 and 64+ is significantly higher in rural areas (UKRSTAT, 2008). Figure 2 demonstrates age distribution in urban and rural areas. This situation may take

[1] Poverty line is defined as 151.1 UAH per month in 2003. It is based on a subsistence basket of good and a 70% share of non-food consumption (WORLD BANK, 2005b).

Figure 2: Age distribution in urban and rural areas



Source: UKRSTAT (2008).

place due to the fact that working age population tends to move to urban areas in search of employment opportunities. A higher share of economically inactive population creates additional impediments for economic development. Furthermore, this may create additional pressures on the public finance system, which is already substantially constrained in terms of resources.

There is a substantial literature dealing with rural development as a complex multi-level process (e.g. VAN DER PLOEG et al., 2002). It may involve multiple aspects with agriculture still staying at the heart of rural development (ibid.). Essentially, rural development could be seen as a system of policies directed at mitigation of socio-economic disparities among regions (TERLUIN, 2001). This includes a combination of fostering income generating opportunities and implementation of effective governance systems for effective provision of public goods. The former has deserved a substantial attention in the literature whereas the literature on the public goods provision in the transitional context still remains largely unexplored. Transition processes may introduce additional challenges on the way to efficient provision of public services. Efficient public goods delivery is essential for rural development (Van HUYLENBROEK and DURAND, 2003). Rural public goods may not only improve lives of the local population but obviously contribute to rural development by reducing transaction costs of local economic activities. Thus, this study focuses on a particular aspect of rural development – governance of public goods provision.

1.2 Background and definitions

Before proceeding any further it is necessary to give a definition of a rural area. There are numerous definitions around the world depending on climatic, demographic and economic characteristics of a given country. In Ukraine rural areas are defined along the lines of the definition of the US Department of Health

and Human Services – as all areas not belonging to urban areas (UKRSTAT, 2011c). In particular, UkrStat's Order No. 602 of 13.12.2006 defines rural population as the inhabitants living in the villages, settlements and urbanized settlements (not defined as urban by separate legislative acts). Furthermore, still acting Order of the Presidium of the Supreme Council of Ukrainian SSR of 12.03.1981 defines a cutoff value of two thousand inhabitants for the villages and settlements. However, now de facto there are many village councils with populations exceeding this value. In this study I will only consider the villages and will introduce a more stringent definition of a rural area in Chapter 2 that may reflect the current situation better.

A great deal of attention in this study will be devoted to the concept of governance. There have been numerous attempts to provide a clear-cut definition to this multi-dimensional and complex notion with early attempts dating back to Adam Smith and John Stuart Mill. ACEMOGLU and JOHNSON (2003) disaggregated governance structure into "contracting institutions" regulating private contracting and "property rights institutions" constraining government's rent-seeking activities. Furthermore, WILLIAMSON (2005), exploring the prospects of the economics of governance, identified its two central elements: institutional response to the transaction costs and adaptation to economic disturbances, when failure to adapt gives rise to the transaction costs. In my view, more comprehensive and probably more relevant for this study is the definition of KAUFMANN et al. (2003) who classify three clusters of governance: "1) the process by which governments are selected, monitored and replaced; 2) the capacity of the government to effectively formulate and implement sound policies and 3) the respect of citizens and the state for the institutions that govern economic and social interactions among them". This is also a working definition adopted by the World Bank that identifies six dimensions of governance:[2] voice and accountability; political stability and absence of violence; government effectiveness; regulatory quality; rule of law; and control of corruption. In most of the cases I will be discussing governance in local and rural contexts utilizing broader notion of governance that stipulates involvement of key stakeholders (public and private) in local public policy process. In particular, I will examine governance arrangements between public, for-profit and non-profit sector.

Furthermore, this study will deal to a large extent with the concept of local governments in transition countries of the FSU. Thus, in order to refer to local governments I use the term "village council" that is defined by the LAW ON LOCAL SELF-GOVERNANCE (1997) as "bodies of local self-governance that represent respective territorial communities and carry out functions of local self-governance…".

[2] For further information, please, consult The World Bank's Worldwide Governance Indicators (WGI) Project.

It is also used in Russian Federation and Belarus. In Ukraine the term also coincides with the smallest administrative unit – municipality. According to the law each village council is headed by a mayor and there is also a secretary. In addition, the village councils have a possibility to establish executive committees carrying out executive functions of local governments. In the light of this I will use the terms "local governments", "local authorities" and "village councils" interchangeably throughout the study.

In order to better understand the transitional context of many FSU countries it is informative to start with the government arrangements that preceded the collapse of the Soviet Union. In the Ukrainian case collective farms used to be basically as self-sufficient as it was possible (PUGACHOV, 2002). Utilities, local roads, schools, and even healthcare are among the public goods that the collective farm enterprises used to be responsible for (ibid.). After gaining independence in 1991 the important issue for Ukraine was transferring the public assets to local governments (WORLD BANK, 2004). Collective farms could not maintain large expenditures for social services and stay profitable (ibid.). As a result, the Cabinet of Ministers released the Resolution No. 1060 that divided the social assets into three groups: 1) the ones that can operate independently and make profit (stores, cafes, etc.); 2) the assets related to utilities to be transferred to local governments; 3) the assets related to the basic public services guaranteed free by the Constitution of Ukraine (e.g. schools, healthcare facilities).[3]

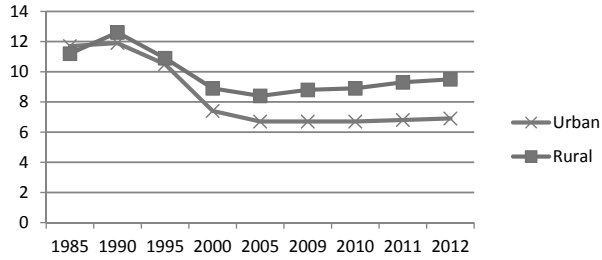
However, the process of transferring of the social assets to the local governments turned out to be rather slow. By 2002 only roughly half of the public assets were transferred (WORLD BANK, 2004). Even up to this point despite the fact that most public assets are formally appropriated by the village councils, local agricultural enterprises continue to provide many local public goods directly. This happens probably due to the fact that local governments are largely fiscally constrained and, on the other hand, there may be a pressure from the local inhabitants who are dissatisfied with the performance of local government. In other words, pressure from local governments and inhabitants often push enterprises to co-fund local public goods. Obviously, the managers of the restructured farm enterprises have the incentives to minimize the expenditures on the public goods. As a result, the level of these services provision may be inadequate.

In the 90s the number of public services facilities plummeted. Particularly hard were impacted pre-school educational facilities and cultural clubs. According to

[3] Consequently, there were a number of other legislative acts that determined the way public assets should be transferred (e.g. Law of Ukraine No. 147/98 of 3.03.1998 and Presidential Decree No. 398/2000 "On Certain Measures Aimed at Improving Conditions for Non-State-Owned Facilities").

WORLD BANK (2004) by 2000 there were 70.6 % of the kindergartens and 84.5 % of the cultural clubs of the levels in 1990. Figure 3 demonstrates the dynamics of the number of pre-school facilities.

Figure 3: Number of pre-school educational facilities by location (thousands)



Source: UKRSTAT (2012).

There is a large drop in the 90s and stabilization thereafter. Furthermore, medical facilities have been and still are severely understaffed. Thus, in 2000 only in 8 % of villages medical doctors were available whereas the respective figure for the nurses is 56 % (ibid.). This situation clearly has had an impact on mortality and life expectancy in rural areas. Furthermore, development of rural infrastructure largely stalled turning the efforts of local public managers to preserving existing assets. For instance, in 1999 the level of addition to the stock of existing water supply systems was only 17 % of the 1990 level and 7 % for the rural roads (ibid.).

Currently, there is a public discourse in Ukraine about the necessity to implement a number of reforms in order to facilitate the process of rural development. First, starting with 2005 several projects of administrative-territorial reforms were registered. They stipulated enlargement of existing smallest administrative units via merges between the municipalities, which would bring possible economies of scale and higher efficiency in local governance. In conjunction with these projects medical, educational and fiscal reforms are currently openly debated. In particular, the challenges of optimization of public infrastructure and fiscal devolution are highly relevant. It is offered to implement measures improving efficiency of public services provision along with granting more decision-making powers to the local governments.

1.3 Rural public goods

As the interest of this study is to better understand how participation and TSOs affect rural development it is important to outline the sphere of rural development that I will be dealing with. The focus of this study is on provision of public

goods and services. First, public goods may be directly related to economic growth as they may enter aggregate economy-wide production function (BARRO, 1990). Second, they improve the standard of life of local population and, thus, are essential for sustainable rural development (VAN HUYLENBROEK and DURAND, 2003).

There may be a number of basic public goods and services that generate a large marginal benefit for local growth and well-being. For instance, UNDP's CBA Project identifies the following public services as priorities for rural development: healthcare, education, water supply, waste management and local transportation systems (EU, 2006). Orientation interviews carried out in 2011 helped identify the most essential ones for local communities and governments: healthcare, education and water supply. Let us examine the state of provision of each of them a bit more in detail.

The quality of public goods and services largely appears to be critical in Ukrainian rural areas. Most of the infrastructure was built during the Soviet times and requires significant capital investments in order to be maintained. However, since the collapse of the Soviet Union the issue of deterioration of rural infrastructure has been largely ignored by the Ukrainian government (WORLD BANK, 2008). Local capital investments are extremely low and were only at around 1 % of the GDP in the beginning of 2000s (ibid.). Naturally, this contributes to further deterioration of local public infrastructure.

General country-wide healthcare expenditures in Ukraine have been well under the 10 % of the GDP recommended by the WHO (UKRSTAT, 2012). However, there is an increasing trend in the recent years. On the other hand, World Bank recommends optimizing the network of healthcare facilities in order to improve efficiency of service provision (WORLD BANK, 2008). The result of the related reforms is that the number of rural healthcare facilities has been decreasing. Table 2 demonstrates decreasing trends among all types of rural facilities. These developments are especially pronounced among the health posts[4] – facilities providing primary care services with a staff of one doctor and one or several nurses. In particular, with implementation of the 2011 medical reform the assets of rural health posts were transferred to the rayon levels (analogous to NUTS3) and that is the year when the biggest drop in the number of health posts could be observed. Resource constrained rayon administrations may not have the capacity to maintain network of health posts.

[4] In addition to the health posts there may be ambulatories, ambulance stations and rarely hospitals in rural municipalities.

Table 2: Network of rural healthcare facilities in Ukraine

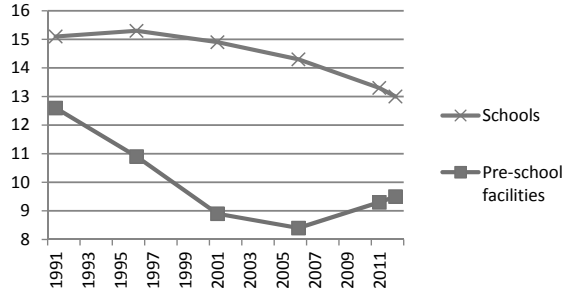
	2000	2005	2008	2009	2010	2011	2012
Number of ambulatories and clinics	2321	3056	3366	3399	3440	2956	2988
Number of ambulance stations	207	181	176	179	175	140	125
Number of health posts	16113	15459	15101	15028	14934	12484	11553

Source: UKRSTAT (2012).

The WORLD BANK (2008) study reveals that dissatisfaction with the healthcare services is substantially higher in Ukraine in comparison with similar transition countries. In rural areas the problem is especially acute (ibid.). Orientation interviews in Kyiv oblast and Crimea suggest that majority of health posts were built at least 30 years ago and often the buildings are in rather bad condition. World Bank indicates that in some cases 97 % of all available resources is spent on current expenses like staff salaries and utilities leaving no possibility for investments in renovations, equipment and training of the staff (WORLD BANK, 2008). As a result, local governments often get creative with regard to fundraising from alternative sources in order to deal with the renovation needs and acquiring equipment.

The situation with rural educational facilities does not appear to be better. The rates of dissatisfaction with the quality of these services are similar to the case of healthcare (WORLD BANK, 2008). In addition, there are also tendencies towards improving efficiency of the services (ibid.). Figure 4 demonstrates the changes in the number of schools and pre-school facilities since gaining independence. The number of schools continues to decrease whereas the number of kindergartens started catching up in 2005.

Figure 4: The dynamics of the number of schools and pre-school facilities



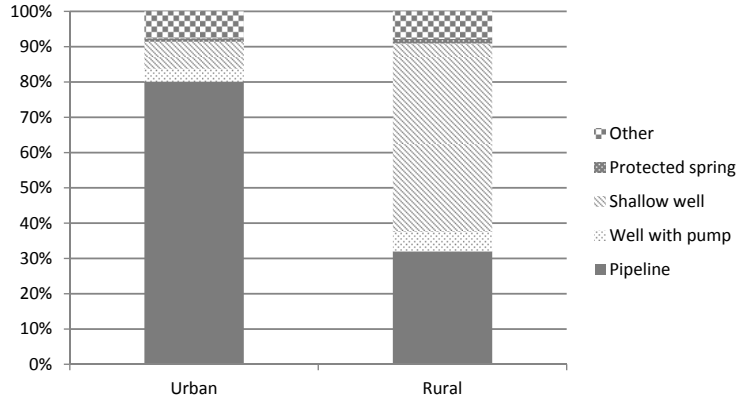
Source: UKRSTAT (2012).

According to the results of the orientation interviews, rural schools and preschool facilities are the public services valued by local populations the most. As a rule, each municipality has at least a primary school. In the light of the current governmental efforts to optimize the network of educational facilities many schools are closed because of the lack of students. However, often village and rayon governments cannot find respective resources to fund transportation services for the students either via local communal enterprise or via some type of Public Private Partnership (PPP) scheme (EU, 2006).

Similar to the situation with local healthcare rural schools receive just enough funding to cover salaries of the employees and the utilities (WORLD BANK, 2008). Obviously, this leaves local public managers without a chance to make capital investments (e.g. school building renovations, equipment acquisition, etc.). It is encouraged to invest in energy saving measures that have the potential to reduce the utility bill by up to 40 % (EU, 2006). As a rule, local schools create an informal parents committee that mobilize resources from the parents to deal with arising needs in capital investments. Orientation interviews suggest that these pooled resources may cover substantial parts of the school-related needs (e.g. computer classes, building renovations, etc.).

UNDP's National Report on MDG 2010 indicates that there are severe problems with drinking water availability in Ukraine. The problem is especially serious in Eastern and Southern parts of the country. Figure 5 demonstrates major sources of drinking water for rural and urban populations in Ukraine. Availability of water pipelines is not surprisingly roughly 50 % lower in rural areas. Geographical

Figure 5: Distribution of the population according to the source of drinking water in rural and urban areas in 2007



Source: UKRSTAT (2007).

dispersion of the municipalities and spatially scattered villages within the municipalities may prohibitively increase the costs of pipeline water supply in rural Ukraine. As a result, most of the drinking water in rural areas comes from shallow wells. Furthermore, there is an emerging trend of drilling personal wells with pumps that can supply one or several households with running water. This type of water supply accounts for 5.5 % of the total in Ukrainian rural areas. However, this may require more resources in order to cover the sunk costs of drilling the well and, as a result, this type of water supply may be restricted to more well off individuals. The rest of the water supply systems have negligible shares of use.

In the communities where public assets have been transferred to local governments water supply services are usually provided either directly by the village council or by a local communal enterprise (WORLD BANK, 2004). Major development and donor agencies[5] are promoting establishment of special non-profit non-governmental organizations that would be responsible for water supply provision – service cooperatives. This way, community members may be able to deal with the sunk and maintenance costs more effectively.

Not only worn out water infrastructure contributes to a resulting bad water supply quality but also a failure to deal with the challenges of waste management (EU, 2006). Orientation interviews have revealed that in majority of the cases municipalities organize improvised landfills outside the populated areas without adherence to existing rules and regulations. Waste toxins may trickle down to the ground waters which are used by local population for drinking. As a result, the challenge is twofold. First, the municipalities need to organize waste collection and transportation. Second, it is necessary to organize (possibly with the help of PPPs) waste utilization facilities that may require inter-jurisdictional cooperation in order to pool resources for dealing with the sunk costs.

In sum, the state of affairs with rural public goods and services delivery is critical. All the above mentioned goods require significant capital investments. World Bank estimated 29 billion USD to be invested over a decade in order to avoid further deterioration (WORLD BANK, 2008). In order to bring the quality level of these services to an adequate level the investments probably need to be much higher.

1.4 Public finance in transition

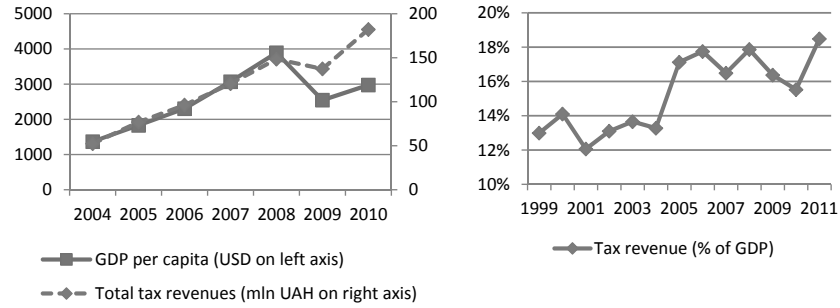
After gaining independence in 1991 Ukrainian village councils obtained the right to represent the interests of local communities within the municipality borders in accordance with the LAW ON LOCAL SELF-GOVERNANCE (1997). They were

[5] Among them are the World Bank, UNDP, Swiss Cooperation Bureau, German Technical Cooperation (GIZ).

also delegated the responsibility for public goods delivery, which, however, has not been backed up by sufficient state funding or any other local revenue generating mechanism (WORLD BANK, 2008; LUKOVENKO, 2003). This is due to the fact that Ukrainian public finance system is still very centralized and leaves local financially constrained bureaucrats dependent on the transfers from the center (ibid.).

In general, tax income generating potential of Ukraine appears to be reasonable as (according to the World Bank's World Development Indicators) the GDP per capita is comparable with the similar transition FSU and EU countries. Figure 6 demonstrates nation-wide dynamics of tax collection. First, it has been reasonnably tied to the GDP per capita and with adoption of the new Budgetary Codex in 2010 after the 2008-2010 financial crisis total tax revenues hiked considerably. However, with a closer look it is evident that there are substantial year-to-year variations of tax revenues with respect to the GDP. This may be connected to the potential inefficiencies in tax collection along with the tax evasion.

Figure 6: Tax collection dynamics in Ukraine

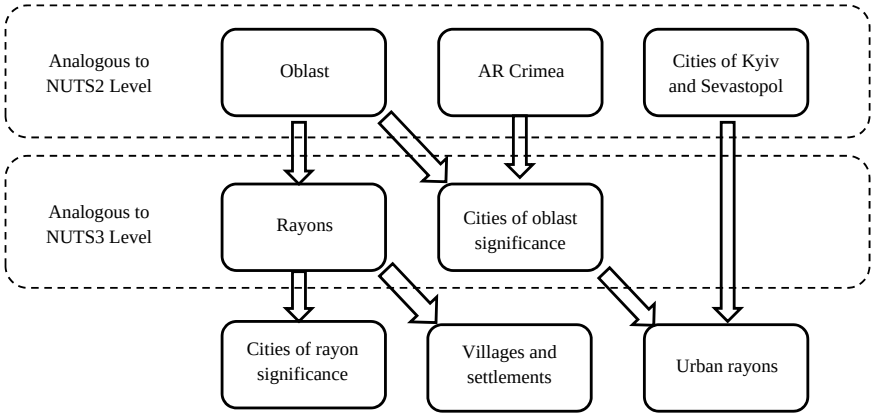


Source: Own calculations based on World Bank Data and UkrStat Data.

Ukraine (as many other FSU countries) has inherited a highly hierarchical system of public administration. Figure 7 demonstrates the structure of public administration in Ukraine. In most of the cases I will be discussing the chain of subordination going from the villages and settlements at the "bottom" and oblasts (analogous to NUTS2 governments) along with the central government at the "top". This governance structure is sometimes called "matrioshka style" or "budget within budget" (LUKOVENKO, 2003). The jurisdictions between different governmental levels are often vaguely defined and, as a result, higher tiers are always able to intervene on behalf of the local governments (ibid.). As the capacity of local governments is rather low there may be issues with credibility (WORLD BANK, 2004). Vertical subordination is also present in the fiscal intergovernmental relations.

The municipalities in Ukraine basically have two sources of revenue: own and shared. Own revenues consist of the local taxes and fees retained by the budgets of local governments. Among these are the following: tax on housing estate apart from land plots, unified tax for small entrepreneurs, fees for carrying out some types of entrepreneurial activities, fees for vehicles parking, tourist fees (BUDGETARY CODEX OF UKRAINE, 2010). Shared revenues represent the share of the fixed nation-wide taxes (e.g. PIT, agricultural tax, etc.) retained locally (ibid.). In most of the cases the tax bases of the municipalities are too small to sustain the operation of local governments with the help of own revenues and shared revenues (WORLD BANK, 2004; 2008). As a result, they rely on transfers from higher tiers of the government: equalization transfers and subsidies (BUDGETARY CODEX OF UKRAINE, 2010). The former are the transfers from higher tiers of the government designated to cover the revenue gap for those municipalities having insufficient tax bases. It is calculated as a difference between the total expected expenditures and predicted tax revenues multiplied by the equalization coefficient (ibid.). Even though in theory these transfers should be reliable sources of income for local governments, in reality predictability of the equalization transfers highly depends on the bargaining powers of local authorities (WORLD BANK, 2004; 2008; LUKOVENKO, 2003). On the other hand, capital subventions are application-based subsidies designated for a specific need within a given municipality. These are also highly dependent on the discretion of the higher tiers of the government and may be to a lesser degree predictable than equalization transfers (ibid.).

Figure 7: Public administration structure in Ukraine



Source: Own elaboration based on LUKOVENKO (2003).

In general, intergovernmental revenue sharing system is setup in a way that vast majority of locally collected taxes is transferred to the central budget. Very little locally collected resources are retained within the municipalities they were collected from. Thus, average own revenues of the local governments are only ca. 3 % of the total revenues as the taxes and fees municipalities are entitled to collect generate miniscule revenues (ibid.). In fact, the amount of these taxes and fees was further reduced after adoption of new Budgetary Codex in 2010. As a result, municipalities have very little control over the official transfers they receive back from the higher tiers of the government.

Most of Ukrainian public services are funded out of the public budgets. Healthcare, education, and even water supply are among the public services creating large tax burden, which, largely affects quality of the services. Major public expenditures have the tendency to concentrate in the higher levels of the government which creates the situation of fiscal centralization. Table 3 demonstrates the distribution of the expenditures between the levels of the Ukrainian government.[6] We can see that on the NUTS2 level the expenditures are roughly 2.5 times lower than the 2009 average for OECD countries having similar administrative systems, which is 41.86 % (OECD, 2009). On the NUTS 3 level the share of expenditures is still substantially lower than in the similar OECD countries. However, all the major decisions about capital investments are predominantly made on the rayon level. Consequently, despite numerous existing responsibilities of local governments there are no resources to back them up. As a result, centralized budgetary system in combination with inefficiencies in tax collection and public funds disbursements create the situation when public finance system cannot cope with arising large needs (NORRIS et al., 2000; LUKOVENKO, 2003).

Table 3: Distribution of expenditures between government's tiers, % (without social security funds)

Government Levels	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
State Budget	68.57	62.18	60.49	64.66	52.7	56.36	60.1	51.86	54.58	64.7
Oblast (NUTS2)	8.13	11.51	7.44	8.04	17.21	15.42	11.89	16.97	16.74	11.85
Cities of Oblast Significance	12.63	15.47	18.88	17.18	17.02	15.83	15.82	17.14	14.71	11.95
Rayon (NUTS3)	7.41	7.66	7.52	6.28	9.19	8.74	9.01	10.92	10.76	8.72
Sub-rayon Total	3.25	3.1	3.67	3.23	3.88	3.65	3.17	3.12	3.22	2.77

Source: SLUKHAI (2002).

[6] Data on sub-national public spending is difficult to obtain in Ukraine. Despite the fact that the data is outdated it still represents important trends. Public budgeting legislation has further centralized budgetary resources.

Overlaps between the jurisdictions of different levels of government and gaps in existing legislature generate favorable environment for corruption and, thus, appropriation of public funds by private interest groups (LUKOVENKO, 2003). Centralization of public funds in the budgets of higher tiers of the government may reflect private interests of the more influential bureaucrats. As a result, capital investments in rural public services are extremely rare (WORLD BANK, 2008). Naturally, this results in deterioration of the network of public infrastructure facilities.

There is currently an open policy discourse with respect to the policies that may help dealing with this situation. First, administrative decentralization reforms along with fiscal devolution are long awaited; however, within complicated political situation there is a limited scope for reforms. Moreover, since these reforms include a whole range of measures also connected to improving efficiency of public services delivery they may be seen as politically unpopular. In particular, these reforms may result in closure of a number of public service facilities that may cause dissatisfaction among the population. To further illustrate, World Bank suggests that the tariffs for services like water or gas supply cannot be any longer subsidized by the state budget and should be fully borne by the consumers (WORLD BANK, 2008). Second, private capital could address some of the needs with the help of public-private partnerships (PPPs) (HART, 2003). Yet, the problem in the Ukrainian context is that there is no relevant legislation facilitating PPPs and the state (and, in particular, local governments) is not perceived as a reliable partner, which significantly increases the risks of private investments (WORLD BANK, 2008). In addition, in order to provide respective incentives for the entrepreneurs it would be necessary to double local capital investments from the current level (ibid.). Third, there may be a scope for direct non-profit provision of local public goods provision by community-based platforms that link providers and recipients (WORLD BANK, 1999; BARDHAN and MOOKHERJEE, 2006; BENNET and IOSSA, 2010). The central idea here is to link the recipients and deli>-verers of public services in order to have better control over quality, price and transparency. As a result, these TSOs may have two-fold functions: first, monitoring of public goods delivery process and, second, direct delivery of the respective services.

1.5 TSOs and participatory approaches to local development

Widely accepted definition of the third-sector organization (TSO) belongs to the seminal work of SALAMON and ANHEIER (1998). They develop a definition based on the following five encompassing characteristics: 1) institutionalized to some extent; 2) institutionally separate from the government; 3) not returning profits generated to their owners; 4) self-governing; and 5) voluntary. This is the broadest concept characterizing the third sector worldwide. There are a number of

related concepts that underline specific features of the TSOs: nonprofit organizations (NPOs), nongovernmental organizations (NGOs), voluntary organizations (VOs).

In the Ukrainian context TSOs are most widely represented by the civic organizations. As the civil society developed the number of civic organizations hiked considerably in mid-90s and continued growing steadily thereafter. According to the UKRSTAT (2013), the number of civic organizations registered by the Ministry of Justice increased from 692 in 1996 up to 3745 in 2012. The number of similar organizations that are registered by local authorities is significantly higher. Table 4 demonstrates the dynamics over the three years with a relatively stable growth rate of ca. 6.5 %.

It is informative to examine the distribution of the TSOs according to the types of statutory activities with the help of Figure 8. First, it is noteworthy that a large number of these organizations are sport clubs (e.g. football, athletics, etc.). The tradition roots back into the Soviet past. There is a significant amount of professional organizations that include labor unions and professional associations. Substantial share also belongs to youth organizations and unions of veterans and handicapped. The rest have respectively minor percentage shares. The share labeled "Other" represents residual organizations that have statutory activities not captured by either of the categories.

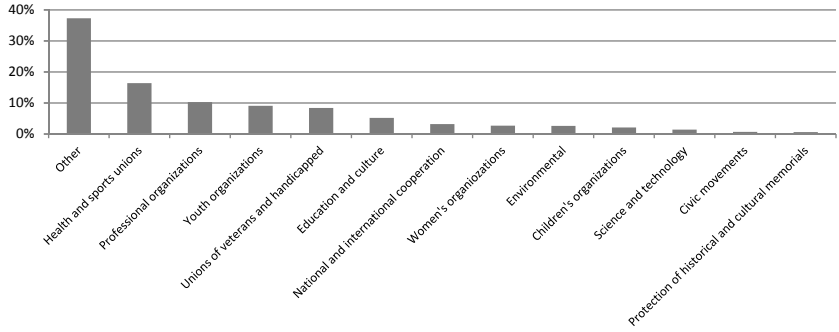
Table 4: Locally registered civic organizations in Ukraine

	2010	2011	2012
Number	77252	82707	87572
% change with respect to previous year	7.06%	6.87%	6.29%

Source: UKRSTAT (2011a; 2012b; 2013).

Even though the results of the orientation interviews suggest that sports clubs along with the unions of veterans and handicapped are rather spread in the rural areas, it is precisely the "Other" category that this study is concerned with. In particular, a part of that category may belong to the TSOs dealing with different aspects of local development. I will talk about these more in detail below.

Figure 8: Distribution of total TSOs registered on all levels by the type of activity



Source: UKRSTAT (2012).

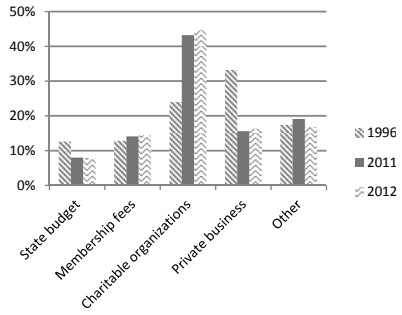
Before introducing the concept of participatory governance it is also important to better understand the nation-wide picture with fundraising and expenditures of the TSOs. Figure 9 suggests that the largest funding sources are charitable organizations and the share of respective funding has substantially increased over the years. The funding out of the state budget still plays a minor role and has even somewhat decreased. In the light of the discussion about increasing role of the TSOs in local public goods and services provision (e.g. BESLEY and GHATAK, 2003; BENNET and IOSSA, 2010) this is an alarming trend. On the other hand, the share of the membership fees has been stable and probably reflects the demand for the TSOs' services from the members.

On the expenditure side the share for salaries has risen to roughly one quarter of total expenditures over the years. Capital investments have stayed remarkably low, probably reflecting donors' unwillingness to fund this expenditure items possibly due to lack of transparency and monitoring possibilities. However, the expenditures for the materials and services related to implementation of the mission have risen over more than a decade.

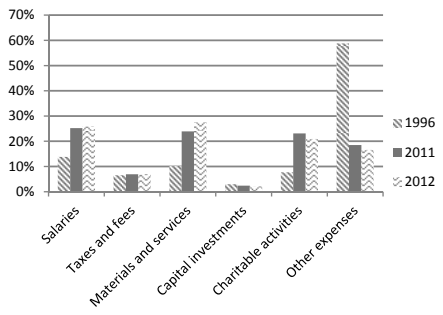
Before I define the unit of analysis in the context of local governance in Ukraine it is necessary to introduce the concepts of participatory and community-driven approaches to local development. Top-down methods of rural development widely used in the 70s across the world failed to deliver expected results (VAN ZYL et al., 2001). In particular, integrated rural development (IRD) – cross-sectorial approach with a focus on agriculture – was a common development strategy among the governments and development agencies back then. It had an area-based character and one implementation strategy for all the targeted

communities independent of local peculiarities. One of the main reasons for failure was inflexibility and inability to take account of the community characterristics due to central management system (WORLD BANK, 1999).

Figure 9: TSOs fundraising portfolio (left) and expenses (right)



Source: UKRSTAT (2012).



Source: UKRSTAT (2012).

I start with a broader definition of participatory governance – a system of institutional arrangements that "…facilitates the participation of ordinary citizens in the public policy process" (ANDERSSON and VAN LAERHOVEN, 2007). This approach stipulates development of mechanisms that would provide involvement of the citizens in the processes of planning, implementation and monitoring of the public development initiatives along with some degree of control over the decision-making with respect to allocation and spending of public funds (SPEER, 2012). Related initiatives may include public hearings, participatory budgeting, community platforms for furthering local development or vigilance committees (ACKERMAN, 2004; COMMINS, 2007). The principles of participatory governance were put in the development of the CDD approach.

The paradigm of the community-driven development (CDD) was first introduced by the World Bank in the mid-90s (ibid.). It is also an area-based approach and it stipulates direct involvement of the community members in local development processes. UPHOFF (1993) pointed out the scope for local NGOs to be seen as platforms for the community members' involvement. This idea was further developed and a concept of a community-based organization (CBO) was introduced. According to WORLD BANK (1999), a CBO is "normally a membership organization made up of a group of individuals in a self-defined community who have joined together to further common interests". Missions of these organizations could range from a targeted delivery of a concrete public good (e.g. water) to implementation of local development strategy. Partnership between the CBOs, local government and private sector is among the principles of CDD (UNDP, 2007).

Now World Bank implements CDD projects in 94 countries with a total budget of around 30 billion USD (WONG, 2012).

There is generally a consensus in the literature on the benefits of CDD. WONG (2012) in a review of CDD programs evaluations across the world finds evidence of CDD's positive impact on socio-economic welfare, poverty targeting, and public services. First, it may improve efficiency of public service provision by reducing the costs of participation in local collective action (HODDINOTT et al., 2001; CASEY et al., 2011). Second, higher community members' participation rates increase community monitoring of the local government, which may mitigate corruption (BJORKMAN and SVENSSON, 2009). Third, CDD improves targeting the poor and makes allocation of resources more responsive to local needs (GALASSO and RAVALLION, 2005). This is a very important argument as IRD back in the 70s was not able to address the diversity of local needs and communities' preferences. Communities are generally in a better position to identify the poor and the priorities for local development. Finally, CDD breads a feeling of responsibility towards local public goods and assets making development efforts more sustainable (WORLD BANK, 1999). Along these lines, BESLEY and GHATAK (2001) argue that the party that values the asset most should be the owner and, as a result, asset ownership may generate better incentives for maintenance. Thus, as communities are the ones ultimately valuing local assets the most, they should also have respectively high incentives to maintain them.

On the other hand, a number of pitfalls and challenges of CDD have been identified. First, it is not yet completely clear what exactly determines the level of communities' engagement in local development. Ethnic and cultural heterogeneity may influence individual incentives to participate (HABYARIMANA et al., 2007; DAYTON-JOHNSON and BARDHAN, 2002). On the other hand, there is still a debate with regard to the impact of institutions and norms of cooperation along with their interaction (MANSURI and RAO, 2004). Furthermore, economic inequality within a community may impact participation rates (BARDHAN et al., 2007). Second, CBOs may compete with local authorities and undermine their credibility and functionality (DAS GUPTA et al., 2004; WONG, 2012). Third, developing world is ridden with corruption issues and, as a result, local community initiatives are vulnerable to elite capture (BARDHAN and MOOKHERJEE, 2006).

Despite the existing challenges, CDD is widely promoted by development agencies also in transition countries (WONG, 2012). For instance, total value of only UNDP's CDD projects in Ukraine is 48.7 million EUR. There are a number of programs that provide grant funding to local CBOs directed at public infrastructure. Among project examples are water supply systems, renovation of health

posts, rural schools, etc. Project design differs across the donor agencies[7] but the core idea is to mobilize local communities to get involved in development processes. However, in most of the cases local authorities are the central contact points during application and implementation stages. Village councils are seen as key partners in the project implementation even though the grant funds are transferred to the CBOs (EU, 2006; UNDP, 2007).

In sum, CDD approaches are seen as an important transitional step within the broader framework of decentralization. Localizing the power to make important decisions about development priorities along with financial issues is the key to a sustainable local development (OSTROM et al., 1993).

[7] Just to mention a few: World Bank, UNDP, Swiss Cooperation Bureau, GIZ.

CHAPTER 2: DATA

This chapter deals with the description of data that was collected and utilized for the study. In general, I use both qualitative and quantitative data collected in 2011-2012 in Ukraine. Data collection was broken down in two stages. First, qualitative data was collected in order to understand the context and situation in the rural areas and subsequently develop a theoretical framework. Second, based on the developed framework quantitative data was collected in the first half of 2012. Below I describe the design of the orientation interviews and multi-stakeholder survey along with some basic descriptive statistics.

2.1 Orientation interviews

In the initial stage of the study, as there has been very little research on local development in Ukraine, it was essential to learn the situation on the ground. In particular, it was necessary to better understand the needs local communities face, existing governance arrangements and general trends in rural development in Ukraine. A trip in the field in the form of orientation interviews helped achieving these goals. The interviews were conducted in the mid-2011 with experts on local development, governmental officials working in different tiers of the government (village councils and rayons), representatives of the development agencies, and different types of nonprofit organizations.[8] In total 17 semi-structured interviews were conducted. Because of their physical location, most of the expert interviews were carried out in Kyiv, whereas the interviews with local officials and TSO representatives were conducted in two regions: Kyiv oblast and Autonomous Republic Crimea. The former region was selected in order to be able to examine examples of salient local TSO which have good access to funding and information on management and maintenance. Proximity to the capital may provide these opportunities. On the other hand, the latter region was interesting as it generally is ridden with problems with water supply and is rather heterogeneous with respect to its population. First, I aimed to explore the link between relatively poor public goods provision and the tendency for TSO establishment and, thus, understanding if these organizations may potentially deal with government's failures to provide these goods. On the other hand, Crimea's heterogeneous population provided an opportunity to explore the theories relating collective action and population heterogeneity. Furthermore,

[8] The range of the organizations interviewed included all possible legal registration forms: rural civic organizations, charitable foundations, service and agricultural cooperatives, and bodies of local self-governance.

one of the issues I was interested in was obtaining a clue about the conjecture outlined in WEISBROD'S (1988) seminal work that TSOs may be in a better position to address heterogeneous preferences of the local population.

All the interviews were recorded, transcribed and subsequently analyzed. First, obtained information helped identifying most burning local needs. In line with the existing literature, items of public infrastructure turned out to be an issue of great concern not only among experts but also among the local population. As pointed out in Chapter 1, the focus of the study was set to such aspects of local development as education, healthcare and water supply services. Second, orientation interviews helped identifying organizations that were most relevant for local development among all the different types presented in the previous chapter. Moreover, obtained data helped positioning this study in the literature related to local public finance, participatory governance and CDD. In particular, the focus was shifted to rural CBOs as the major unit of analysis. Third, the results provided an opportunity to better understand local governance arrangements involving all the stakeholders. And, finally, obtained rich qualitative information substantially helped shaping theoretical framework of the whole study. Often within this work quantitative results are backed up by the qualitative data obtainned during the orientation interviews.

2.2 Questionnaire design

The rich data obtained with the help of the orientation interviews helped shaping the scope of the whole study. Having mapped key stakeholders within local governance arrangements in Ukraine motivated the focus on a specific type of the TSOs and level of government to be surveyed. In particular, rural CBOs were identified as the organizations that have the potential to substantially contribute to local development. The decision was also motivated by a recent attention towards this institutional form from the side of the development agencies. Along these lines, I selected mayors of rural municipalities to be the second type of respondents. Orientation interviews revealed that local governments, and in particular, mayors of the village councils enjoy high credibility among the local population and play a crucial role in local public policy process. Lastly, in order to better understand the situation with local public goods local inhabitants were identified as the third type of respondents. As a result, the innovative feature of the survey within this study is that it focuses on multiple stakeholders ensuring triangulation of information sources and comprehensiveness of the obtained data.

As substantial part of this study deals with the issues of local public finance, it was necessary to obtain statistics featuring local fiscal constraints. However, most of these statistics were not readily available. As a result, mayors' questionnaire

was designed in a way that ensured obtaining these basic statistics. In particular, I created a section that was supposed to be filled out by the village councils' accountants and, on the other hand, the questionnaire contained questions related to mayors' perceptions about local fiscal constraints and revenue generation. This part of the questionnaire was aiming to obtain a range of variables reflecting the variation in the public finance situation in a given municipality.

A substantial share of the mayors' questionnaire deals with the relationship between the village council and local TSOs. In particular, it was important to understand the nature and extent of local government's cooperation with these organizations if they were established. In addition, there is a battery of questions exploring the mayors' attitudes towards the civil society and the importance of the third sector overall. Finally, there are questions that could be found in all of the questionnaires: relating to the perceptions about social trust, cooperation, and the level of public goods provision. In all the questionnaires for three key stakeholders one can find sections related to personal and demographic characteristics of the respondents.

For those municipalities with a CBO I designed a questionnaire for the chairs of the respective organizations. A major part was devoted to the relations with local authorities and other governmental bodies. It was important to understand the role of a given CBO in local governance arrangements and see how it positions itself with respect to the local government. On the other hand, it was important to understand fundraising portfolios of these organizations and the respective section in the questionnaires attempts to shed light on this issue. Furthermore, a battery of questions explore organization's governance: the way it was registered, amount and type of labor involved in running the organization, statute-related questions, etc. As is the case with the mayors' questionnaire, there is a section on personal and demographic characteristics of the respondents.

On the other hand, the main aim of the residents' questionnaire was to understand the situation with public goods and cooperation from the point of view of residents. The notions of participation and cooperation are of central importance in the literature related to the research on the third sector. Thus, a substantial part deals with these issues. In order to ensure comparability of the proxies to be constructed from the questions I adopted some related questions from the World Values Survey, which is widely used in the related literature (e.g. Helliwell and Putnam, 2004; Bjornskov, 2010). Furthermore, the section on the public goods valuation was constructed using four subsections: general perceptions about the municipalities' infrastructure along with sections on local healthcare, education, and water supply. The questionnaire, as is the case with the other two, was completed with personal demographic characteristics.

All the questionnaires were pretested in Dnipropetrovskyy region early 2012. This, first, allowed ensuring quality and reliability of the questionnaires. Second, it provided an opportunity to find a balance between length and the amount of information to be included in the residents' questionnaire. This allowed identifying an optimal workload for the enumerators that were to survey the residents.

2.3 Sampling and data collection

Empirical evidence in this dissertation mostly comes from a multi-stakeholder survey conducted in 2012 in Ukrainian rural areas and to a lesser degree from secondary sources. I call it a multi-stakeholder survey as it involved interviews with three types of respondents: residents, mayors and CBO leaders. The purpose of the survey was to obtain a data set in order to address the research questions of the study.

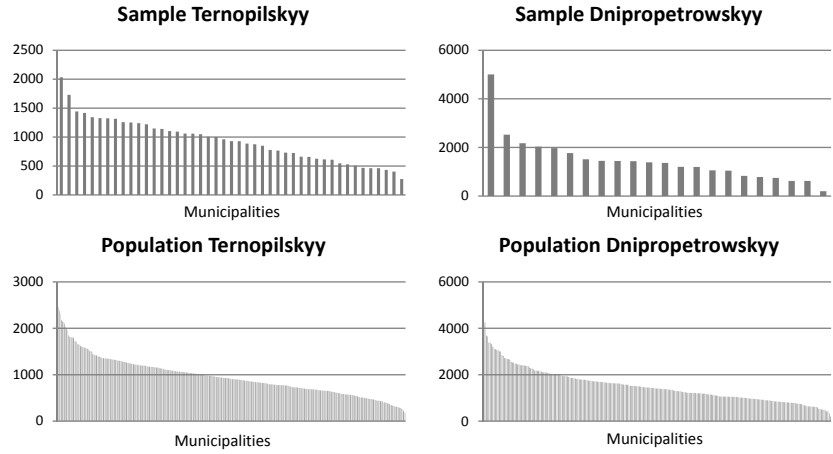
In order to minimize data collection costs it was decided to focus on two regions in Ukraine: Ternopilskyy and Dnipropetrowskyy regions. These structurally different regions were identified as representative of Western and Eastern parts of Ukraine, respectively. First, there are structural economic differences between the regions in terms of the presence of heavy industry. Dnipropetrowskyy region hosts mining, metal and chemical industries which is generally representative of the Eastern part. According to the UkrStat (2011b), Dnipropetrowskyy region's share of agricultural production is only roughly 7 % (on average 11 % among Eastern regions) of the total GDP in comparison to ca. 26 % of Ternopil region (on average 21 % among Western regions). Another structural difference is the number and accordingly the size of administrative units. There are a total of 580 and 288 municipalities in Ternopilskyy and Dnipropetrowskyy regions, respecttively, even though the territory of Dnipropetrowskyy region (31914 sq. km) is roughly 2.5 times larger than of Ternopilskyy (13823 sq. km). Average municipality population in the former is 1117 residents (average in the West – 1060 persons), whereas in the latter it is 2386 persons (average in the East – 2325 persons). Average rural municipality area of Dnipropetrowskyy region is 22.23 sq. km (average among Eastern regions is 24.00 sq. km), whereas of Ternopilskyy region – 13.49 sq. km (average among Western regions is 16.80 sq. km). Eastern region is much more urbanized with 83.54 % of the population living in the cities in comparison with the Western one (only 44.18 %). As a result, these structural differences are not only economical but also administrative and are also representative for the East-West differentiation.

Rural population is the target of the study. Thus, I, first, compiled all the municipalities with official rural status. The problem with using this population is that there is still a large variation with respect to the number of inhabitants.

As the status of some municipalities may have not been reviewed for some time they may be de facto urban. As this study explicitly deals with the issues of rural governance it is important to focus on rural communities. In order to ensure a "rural enough" population to draw a sample from, I calculated third quartiles for each of the regions[9] and used it as a cutoff value, under which rural municipalities were defined in both regions. Even though the cutoff values are somewhat arbitrary they ensure that we deal with rural municipalities only. As a rule, the municipalities with the populations above the chosen cutoff value are represented by urbanized towns where the population is considered to be urban according to UkrStat's Order No. 602 from 13.12.2006. This procedure reduced the populations in the Western and Eastern regions down to 499 and 266 municipalities respectively. On the other hand, I did not set any lower cutoff values for population definition.

Next, two random samples were drawn from each of the regions with the sizes proportional to the amount of municipalities within each of the regions. Figure 10 demonstrates the distributions of the samples and underlying populations according to the number of inhabitants. A reasonably close match had been achieved. As a result, pooling two sub-samples together I obtained a sample of 54 municipalities drawn from the two target regions.

Figure 10: Ranked distributions of the samples and respective populations, municipality inhabitants



Source: Own calculations based on the author's survey data.

[9] The cutoff value for Dnipropetrowskyy region was 2676 persons and 1522 for Ternopilskyy.

Within the sampled communities I contacted respective mayors in order to set up an appointment for an interview. Considering the sensitivity of a substantial part of the questionnaire I expected substantially lower response rates. However, mayors were willing to participate to a far greater extent than expected. As a result, the response rate was 76 %. Virtually in all non-response cases it was extremely challenging to explain to the mayors the principles of confidentiality of the survey and, thus, they were afraid of potential sanctions from higher tiers of the government. As was noted above, this is not surprising considering highly hierarchical structure of public management and high degree of centralization in Ukraine.

As a next step, for each of the communities I investigated whether a CBO was established or not. Identification of the CBOs was based on the WORLD BANK'S (1999) definition discussed in Subsection 1.5. Across all the legal types of non-profit organizations identified during the literature review and the orientation interviews I selected the following ones as potential candidates for CBOs: civic organizations, charitable foundations, consumer cooperatives, service cooperatives, and bodies of population's self-governance.[10] This excludes agricultural cooperatives, credit unions, political parties and faith-based organizations as the ones that are less relevant for local development in terms of public goods provision. Due to representativeness of the sample of municipalities the resulting proportion of the CBOs in each of the regions (30.3% in Ternopilskyy and 76.2 % in Dnipropetrowskyy region) should be also representative. In the cases when a CBO was present in a given municipality I contacted the respective leaders in order to be able to set up an interview. The interviews with the chairs of these organizations were set up on the same day as the ones with the mayors. However, the meeting venue was different in order to exclude mayors' influence on the respondents' answers. The response rate among the CBO leaders was 100 %. However, one needs to keep in mind that municipality selection principally depended on the mayor's consent to participate. Yet, CBOs were identified in none of the non-respondent municipalities.

I now turn to the sampling procedures within the residents' survey. Selection of the respondents among the residents was based on quotas corresponding to the municipalities' populations. Unfortunately, residents' registries were not available at the time of the data collection and even if they were information reliability would be low as the last population census was carried out in 2001. Thus, it was decided to select the respondents based on the geographical location of their household. In particular, I used a multi-stage systematic sampling approach based on a "random walk" method. This ensured representativeness

[10] A special quasi-public organization defined by the LAW OF UKRAINE ON BODIES OF POPULATIONS' SELF-GOVERNANCE (2001).

with regard to the satisfaction with public goods as some of them (e.g. water supply) may be rather location-specific. Municipalities within the sample were assigned a sample quota ranging from 8 to 16 respondents depending on the population. Based on the information provided by the satellite maps, I identified a first starting point randomly and then followed an incremental random walk approach in order to identify the rest of the interview points. Within the selected municipalities each village was assigned a sampling quota that depended proportionally on its population. Villages with the populations less than 20 inhabitants were not considered because such small populations typically indicate highly depressed areas with virtually all the inhabitants representing elderly persons.

As a result, a sample of 588 residents was formed. Furthermore, respondents were stratified by sex, age and employment status. The screening part of the questionnaire was designed for this purpose. This way I tried to ensure representativeness of the different possible views with respect to the questions in the survey. A team of two enumerators carried out the interviews with the residents.

2.4 Basic descriptive statistics

(i) Rural public goods provision in Ukraine

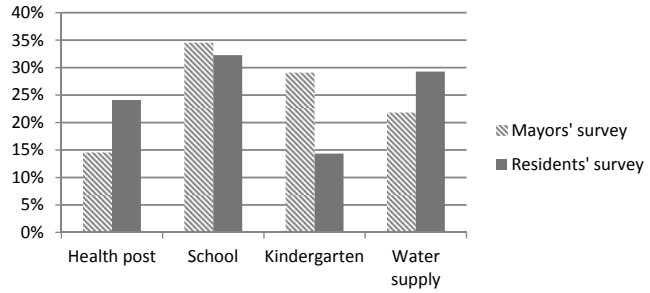
As was pointed out in the previous chapter, experts' evaluations of the situation with local public goods and services provision are rather negative. However, mayors' perceptions appear to be not so pessimistic. Roughly 72 % of the respondents report being satisfied to some degree with the way the municipality's territory looks like and the quality of streets maintenance. Interestingly, 85.2 % of the interviewed mayors believe that their municipality has adequate shopping opportunities and 68.6 % report having good local public transportation systems. Residents' survey reveals that the satisfaction levels with these public goods are similar among the residents: 70.92 % agree or partially agree that their municipality looks nice and tidy; 83.84 % at least to some degree believe that there are enough shopping possibilities within the municipality; and, finally, 62.76 % are satisfied with local transportation situation. Moreover, it appears that the respondents in Ternopilskyy region are generally more satisfied with public goods like shopping opportunities (by .32 units with t-test's p-value .000)[11] and transportation (by .75 units with t-test's p-value .000).[12]

[11] All the t-tests in this Subsection have a null hypothesis that the means of the subsamples are equal. In all the occurrences two-sided tests were performed. The significance level 0.05 was used consistently throughout this Subsection.

[12] The descriptive statistics are based on questions RV23.b and RV23.c in the residents' questionnaire.

It is interesting to examine what the respondents consider to be the priorities for local development. The biggest share of the mayors (19 out of 54 surveyed) indicated that the priority is to renovate local school, which parallels residents' survey with 32.27 % of the residents responding the same way. Figure 11 demonstrates the distribution of the number one priorities within the municipality according to the type of the respondent. Number 2 priority among the mayors is construction of the kindergartens whereas for the residents – water supply. Interestingly, the residents believe that out of these four public goods kindergarten is least important. In sum, it is clear that renovation and improvement of local schools and water supply systems is the priority for local communities in Ukraine.

Figure 11: Public goods priorities from the point of view of mayors and residents



Source: Own calculations based on author's survey data.

Turning to the issues of local healthcare, vast majority of the residents (69.73 %) reports having a health-post, fewer – an ambulatory[13] (34.01 %), and very few – a hospital (2.89 %) within their respective municipality. Data obtained with the help of the orientation interviews indicates that among the major challenges of local healthcare appear to be renovation of health-post buildings, medical equipment and attracting qualified staff. Thus, only 31.5 percent of the mayors from the sample fully agree that respective health-posts have adequate heating systems and are well insulated. Only roughly 35 % fully agree that there is a sufficient amount of medical equipment. In general, confidence in local healthcare is rather low. Thus, 33 % of the mayors in our sample are sure that they can get all necessary medical services (primary care within the municipality and secondary – in the rayon capital town). There is obviously less optimism among the population as only 19.2 % of the surveyed residents are confident

[13] It represents a medical institution providing specialized healthcare on an "outpatient" basis (it does not admit patients for overnight stays).

that they can obtain all necessary medical services. A substantial part of the residents (50.7 %) report that the quality of primary healthcare services stayed the same over the last 5 years; 30.1 % report slight or significant decline in quality and 19.2 % – slight or significant improvements.

Water supply appears to still be dominated by public and private wells (65.31 % and 91.83 % respondents report having these respectively). As was pointed out in Chapter 1, one can observe an emerging trend of using autonomous water supply systems (deeper well with a water pump) as 12.75 % of the respondents report having these systems installed in their households. Moreover, roughly 65 % of mayors report having a similar system that supplies water at least to a part of the community. On the other hand, centralized water supply based on a special water way is reported only by 11.87 % of the respondents. Roughly every fifth respondent (22.96 %) believed that access to water improved at least a little during the last 5 years whereas 63.78 % suppose that it stayed the same. Experts on water delivery (interviewed within orientation interviews) point out substantial needs in terms of water access and its purification. However, they also indicate that there is a lack of awareness of these issues on the local level. Thus, 80.24 % of the residents report being satisfied or somewhat satisfied with the water access in their households and 73.98 % believe at least to some extent using good quality water. The problem is that local population often uses the water from shallow private wells that is prone to impurities. Considering poor situation with the waste management, it is common that local ground waters get contaminated (EU, 2006).

On the other hand, public services in the domain of education appear to be relatively better maintained. Thus, 74.13 % of the surveyed residents fully or partially agree that local school has a well-maintained building and 71.87 % fully or partially agree that there is all necessary equipment including computer class. In general, orientation interviews have revealed that rural schools are maintained better than other public goods. There may be a prevailing mental model that children should be taken care of first. Moreover, there is often the case that parents make regular informal financial contributions for school maintenance. Accordingly, 37.65 % of the surveyed residents report having a system of similar contributions in place. Thus, informal collective action among parents provides a constant flow of funds for minimal capital investments (e.g. purchasing school desks, painting the walls, etc.). Finally, around a third (35.73 %) of the respondents believes that educational services in the community improved to some extent over the last 5 years and 40.48 % said that they stayed the same; whereas, the rest believed that they worsened a bit or a lot. One of the likely explanations suggests that this is due to the trends of optimization of schools network that stipulates drastic reduction in the number of schools.

In addition, there appears to be a serious problem with waste management that hasn't been addressed for decades. Within residents' survey 55.4 % respondents report taking their waste to improvised dump site and 85.9 % report burning some of the waste. It is suggestive that these uncoordinated practices have severe impact on environment. In particular, major problem is waste generated toxins getting in local ground water, which often represents a major source of drinking water. This problem has two sub-components. First, collection of waste requires either some form of collective action (e.g. establishment of informal fees, etc.) or strong coordination from the side of the village council in order to collect waste from inhabitants within the community and transport it to a landfill. Secondly, construction and maintenance of waste management facility requires significant sunk costs and supra-municipality cooperation.

(ii) Local governance in Ukraine

Orientation interviews had identified a problem with the information access that the village councils face. Lack of information about funding opportunities, effective public management strategies may impede local bureaucrats from effective work. Thus, I found that 54 % of the village councils have access to the Internet and only 44 % of the mayors regularly use it for work-related purposes. These rates are different in the regions: only 28 % of the village councils in Ternopilskyy region have access to the Internet, whereas this figure is 95 % in Dnipropetrowskyy region because of a recent state program "Electronic Village". Furthermore, computer literacy is relatively low among the mayors with only 37 % evaluating their skills with 5 or higher on a 1 to 10 Likert scale. According to mayors' impressions, the average percentage of the population having Internet access is 20 %. As a result, in general the rates of Internet access appear to be rather low.

Deputies of the local village councils on average meet almost every month (11 times a year). Among the topics usually on the agenda are land-related issues and provision of local public goods and services. The number of deputies and staff in a given village council depends on the population. However, local governance experts within the orientation interviews indicate that bargaining power of local bureaucrats can substantially affect the composition of the village council's apparatus. Minimum staff configuration is a mayor, a secretary, a treasurer and a part-time technical worker. The amount of staff ranges up to a total of 9 positions in the sample.

There is also a noticeable variation in public finance situation among the municipalities. Average predictability of equalization transfers (2.74 based on a 1 to 4

Likert scale) is significantly higher than the predictability of capital subventions[14] (1.77 based on the same scale) where t-test's p-value is 0.000[15]. This means that local authorities mostly perceive equalization transfers as "rather predictable"; whereas, capital subventions – as "rather unpredictable". As noted in Section 1.2, the general level of capital investments is very low. This is most probably due to central allocation decisions and, on the other hand, low activeness of local bureaucrats may be among other reasons. They may be avoiding bureaucratic hurdles connected with applying for, receiving and expending these funds.

Entrepreneurs appear to be quite active with respect to engagement in local development. They tend to be prone to provide financial and in-kind assistance to the village council. Ca. 48 % of the mayors within our sample indicate that to some degree local business had helped with local development. The cooperation with the village council is most of the times informal. Only in four municipalities the authorities signed "Social Partnership Contracts".[16] Low incidence of formal cooperation is most probably due to low awareness levels among local authorities. Nevertheless, local enterprises usually provide targeted monetary contributions towards a specific need (e.g. local school or water supply system reparation). Most of the times these are small monetary contributions less than UAH 1,000 (in 2011 there were on average 6 contributions of this type in each municipality). Larger contributions are less frequent but one can observe some communities with substantially higher entrepreneurial activity directed at local development. Moreover, entrepreneurs appear to be involved in local decision-making as 69 % of the interviewed mayors report involving them on a regular basis to some degree. Finally, it is noteworthy that most of the municipalities do not perceive themselves as fiscally autonomous. Thus, roughly 41 % of the surveyed municipalities agree that local enterprises have played significant roles in filling local budgets.

It is, finally, informative to examine mayors' perceptions about the role of the TSOs within the municipality. First, vast majority of the mayors agree (94 % of the respondents) that active civil society is important for local development and that it is important to involve community members in this process. Interestingly, 67 % believe that it is very difficult to establish a TSO without the support from the village council. The difficulties may be connected with registering an organization in different governmental institutions or establishing

[14] Equalization transfer is a monetary transfer from higher tiers of the government with the aim to compensate a municipality for a possibly insufficient tax base or generated revenues. Whereas capital subventions are application-based transfers addressing local capital investment needs. For more information, please, refer to Subsection 1.4.

[15] The variables are based on the questions MV17.a and MV17.b of the mayors' questionnaire.

[16] It is an official agreement (mostly of declarative character) between the village council and an entrepreneur about providing monetary or in-kind support towards local development.

predictable relationships with local tax authorities.[17] Finally, there appears to be no uniform opinion about the need to establish a community development fund.[18] Sixty five percent of the mayors "strongly agree" or "agree" that such a fund is necessary. The ones that consider such institutions redundant motivate their attitudes by pointing out that the state budget should be responsible for dealing with local public goods. On the other hand, they argue that it may be difficult to levy regular financial contributions from the local population due to predominantly low incomes.

(iii) CBOs in rural Ukraine

Now, I will briefly describe the data obtained from the interviews with the CBO leaders. The sample consists of 26 municipalities with established CBOs out of total 54 randomly selected municipalities. First, it was extremely difficult to identify the leaders of the CBOs. In many cases the organizations were established by the village council personnel members who registered it officially on some other person in the community. Because of these circumstances I was able to interview 13 CBOs' chairs; in 8 cases mayors identified themselves as the chairs and in the rest of the cases other persons involved in the operation of the CBO (e.g. secretary, treasurer, etc.) were interviewed.

The survey suggests that there are enough sources of information about how to manage a CBO in rural areas. Thus, 73 % of the respondents indicated that there are enough opportunities to obtain related information. In 65 % of the cases resource centers were established in the rayon centers. These are nonprofits predominantly established by UNDP's "Community-Based Approach (CBA) to Local Development Program" or similar programs initiated by other development agencies. Their task is to provide support to the social entrepreneurs with establishment and management of local CBOs. Among the respondents 39 % indicated that they were recommended to register a CBO in the way they did by the staff of the CBA Program. These numbers suggest that the program has had a substantial impact on the development of the CBO establishment trend.

The organizations in the sample are very young. The youngest one was registered in 2008. This, however, does not mean that there hadn't been informal operation before official registration. UNDP's CBA Program started active operation in 2008-2009 and it coincides with the registration of many CBOs. As a

[17] Orientation interviews suggest that there may be a lack of awareness about nonprofit status of the TSO among the employees of local tax authorities. As a result, it may take substantial time for social entrepreneurs to generate respective awareness.

[18] Community development fund is often promoted by the development agencies as a way to deal with arising shocks in local public goods provision. Small regular monetary contributions from local population and/or local entrepreneurs are considered to be the potential sources of funding.

result, the organizations had not been able to establish meaningful contacts. In particular, only 11 out of 26 CBOs report having had contacted other similar organization with the aim of experience and information exchange. Only four had contacted more than one donor. Five CBO chairs indicated that local entrepreneurs support their organizations financially on a regular basis whereas 15 CBOs report that local businesses contribute monetarily based on the arising needs. Similar trends we can observe in the propensity to contribute among the residents: there appears to be general negative sentiments towards regular monetary contributions. Unfortunately, the data on monetary contributions from different sources and on budget formation is of a bad quality because of data collection difficulties.[19] As a result, there is very little point in comparing budgetary data due to inaccuracy.

Since, according to the definition in Section 1.4, CBO is a membership-based organization it is informative to take a look at the related statistics. In total 12 organizations out of the sample report having members. Among those, average membership size is roughly 130 persons. Interestingly, only in 6 municipalities members make regular monetary contributions towards local development fund. Such low rates of community involvement could probably be explained by the fact that these organizations are still rather young and gain credibility among local community members. Along these lines Banerjee et al. (2010) suggest that collective action in the communities has to be learned over time.

Most of the times, individuals involved in managing the organization donate their time and efforts. On average 4 individuals are involved in running local CBOs in Ukraine. The head invests on average 3.8 working hours per week in organization's management. Then, in most of the cases statutes of the CBOs stipulate positions for a secretary and a treasurer. On average, the former works on CBO-related issues 2.4 hours and the latter – 2.8 hours a week. As we can see, CBO management appears to be exclusively a part-time activity. Moreover, the respondents indicated that it is often the case that managers invest a lot of time during project-related activities and zero at any other time. In over half of the cases such peaks of activity are initiated by calls for proposals of different development agencies. In particular, UNDP's CBA Program has substantially contributed to these processes. Furthermore, 15 CBO leaders out of our sample report meeting on a regular basis with the persons involved in organization's management. This indicates that there may be CBOs that were established and legally registered in order to be able to obtain funding from the CBA Program or a related agency.

[19] The respondents were reluctant to disclose financial information as it required presence of an accountant who possessed knowledge about fundraising details.

Finally, in 11 cases CBOs appear to have a board of directors or a similar institution. An established and functional board is an important indicator of organization's governance as it may reflect CBO's support among community's influential persons. Also, surprisingly, only 15 respondents planned to expand CBOs' activities within 5 years after the interview took place. These figures are also in line with the argument that some of the CBO leaders may see formal organizations as a vehicle facilitating obtaining funding from a concrete source. In 5 cases the respondents stated verbally that their organizations were established for "participation in the CBA Program" or for a specific "project implementation".

In sum, the evidence suggests that rural civil society in Ukraine is taking the first steps on the way to meaningful engagement in local development process. The quality of CBOs' governance and the level of community members' involvement are still low. However, one needs to keep in mind that most of these organizations were only 3-4 years old by the time of data collection. There is definitely a potential for development of a sound collective action in Ukrainian rural areas.

(iv) Participation in rural communities

First, in order to understand the composition of the respondents of the residents' survey it is necessary to mention that residents' ages are relatively evenly distributed due to stratification process. In particular, average age is 50 with 1st quartile at 36 and 3rd quartile at 63. In general, it was relatively challenging to identify the respondents for the lower strata as the younger respondents were more difficult to find in the households at the time of the interview. It is important to point out that I assumed equal underlying distribution of the rural population's age. In reality it may not be the case as younger population tends to move to the urban areas. However, for the purposes of this study this assumption may be adequate as the interest of the study lies in obtaining the perceptions about the issues raised from all parts of the population. Because age is an important variable in many models I will consider, the stratification procedure attempted to ensure its sufficient variation. Furthermore, 37.6 % of the respondents were assigned a retired status. This is a bit higher than the initial quota set at 33.3 %. However, considering the trends of youth outmigration from rural areas (according to UkrStat's data), obtained figures may well be representative. Interestingly, 39.46 % from the total amount of residents report being unemployed. This figure should be compared to the unemployment rate of rural economically active population in 2011 reported by UkrStat (2012c) – 8.5 %. However, self-reported values may be inflated as they include structural and frictional unemployment. Furthermore, the fact that individuals reported being unemployed does not mean they do not run some sort of agricultural economic activity. And, finally, location-based selection of the respondents is ridden with the biases towards

unemployed part of the population as they are the ones usually at home at the time of the interview.

The female part of the sample is 53.7 % which provides a reasonable gender balance. Most of the respondents (62.4 %) were born within the municipality and lived there for the whole life, which indicates that they should have possessed a relevant knowledge about the municipalities' affairs. Furthermore, this testifies in favor of a conjecture about rural households' low mobility. As this study focuses on public goods delivery, TIEBOUT'S (1956) hypothesis about local residents creating inter-municipality competition by "voting with their feet" may not be valid.

Orientation interviews have revealed the problem with access to information in rural areas. Quantifying these challenges I found that 25 % have access to Internet in their households. Self-reported computer skills among internet users are on average 5 on a 1 to 10 Likert scale. One of the functions of the village council is to inform local residents about current affairs within the municipality. Among the residents 61.4 % agree to some degree that local authorities provide sufficient information to the residents. Furthermore, it is a common practice among the village councils to invite local population to town hall meetings in order to discuss current burning issues. Respondents on average indicated that local authorities invite local residents to the town hall meetings 2.4 times a year. However, only 21.1 % participates often or regularly.

One of the central variables in this study is social trust. There are a number of trust's proxies I will be using below and it is informative to better understand their descriptive statistics. First, the level of trust towards the residents of the municipality is higher in Dniplorpetrowskyy region by .67 on a 1 to 10 Likert scale (p-value of a t-test is .005).[20] This is a somewhat surprising finding as there is a general misconception in Ukraine that social capital is higher in Western part of Ukraine. However, trust towards people of other religion and nationality is higher by .2 and .12 respectively on a 1 to 4 Likert scale in Ternopilskyy region. This may be to some degree explained by a higher exposure to different nationalities and cultures in the Western parts as opposed to a more homogeneous East. Furthermore, it is interesting to look at the levels of trust towards different institutions. First, there are no significant differences in the levels of trust towards rayon administrations between Ternopilskyy and Dnipropetrowskyy regions where the levels are 2.6 and 2.58 units respectively on a 1 to 4 scale. However, we see that the trust towards oblast administration in Dnipropetrowskyy region is .14 (t-test's p-value .042)[21] units higher which is probably due to a presence (at the time of the interviews) of a relatively salient head of the administration,

[20] The variable is based on the question RV9.a from the residents' questionnaire.

[21] The variable is based on the question RV11.4 of the residents' questionnaire.

Mr. Vilkul. Government support is naturally higher in the Eastern region by .39 units (t-test's p-value .000). The support of the current government (headed by the Party of Regions) is traditionally higher in the East.[22] Moreover, there appear to be systemic differences in the levels of trust towards NGOs: it is .38 units higher in Ternopilska oblast (t-test p-value is .000).[23] This may be explained by the distrust towards the state institutions in the West and proxymity to better developed civil societies of the neighboring EU countries. Finally, residents tend to trust the cooperatives more in Dnipropetrowskyy region (t-test p-value is .035) and local business is trusted more in Ternopilskyy region (t-test p-value is .058).[24]

Now, I turn to the variables related to participation also playing a central role in this study. First of all, there appear to be no regional differences in the self-reported level of involvement in municipality's affairs and the frequency of participation in the regular general meetings facilitated by the village council. Secondly, very few people are members of any sort of TSOs. Only 3.57 % of the residents within the sample are members of street committees[25] and even fewer (3.06 %) report themselves as members of local CBOs. Orientation interviews revealed that it may be often the case that newly established CBOs list many residents as members but the latter are not aware of that or eventually forget about it. Having extensive membership is one of the requirements from many development agencies (e.g. CBA Program). Third, it is often the case that the communities collect monetary contributions towards local public goods provision. There is, however, a substantial difference between one-time targeted contributions and regular contributions. Roughly 64.29 % have made one-time contributions at least once whereas only 21.94 % contribute on a regular basis. Along these lines, orientation interviews confirm that there is a general negative sentiment towards regular monetary contributions. Residents' incomes may be too low and there may be general distrust towards the idea of somebody regularly collecting money and potentially misusing it. Fourth, volunteering time and efforts may be an important part of the community life. Back in the Soviet times communities used to organize so called "subbotniks" – a day when community members would collectively volunteer for a certain community cause. The data indicates that in 2011 54.59 % of the residents made a contribution in the form of their time and efforts. These active residents volunteered on average 3.6 times during that year.

[22] According to the official data of CENTRAL ELECTORAL COMMISSION OF UKRAINE (2010).

[23] The variable is based on the question RV11.7 of the residents' questionnaire.

[24] The variable is based on the question RV11.8 of the residents' questionnaire.

[25] Soviet Constitution defined street committees as the smallest units of local governance. Currently they are defined by the LAW ON LOCAL SELF-GOVERNANCE OF UKRAINE (2001), but the law is not clear about their activities.

In sum, the data indicates that participation rates are still rather low in rural Ukraine. This could be possibly explained by a persistent distrust towards existing institutions of local governance systems. I will return and examine this issue more in detail in Chapter 4.

2.5 Measurement issues

As outlined above, this study utilizes a very rich data set that provides an opportunity to explore the research questions very carefully. However, there are some caveats that I should make the reader aware of. Understanding the shortcomings of the data set will allow better interpretation of the results.

The first set of problems is related to a selection bias undermining external validity of the residents' survey results. Even though special attention was paid to diligent stratification it was not always possible to identify a relevant respondent. The biggest challenge was finding younger respondents as they tend to be studying or working during the interview time. As a result, in a small number of cases the quotas for younger respondents in some communities were not fulfilled. As was mentioned in the previous Subsection, the assumption of equal distribution across the ages of the underlying distribution may be rather far from reality. This may be the reason why it was difficult to find younger respondents. Furthermore, due to cultural specificities in Ukraine it was more challenging to find male respondents. Therefore, female respondents have a slightly larger weight in the final sample. Finally, random walk based systematic sampling may also introduce selection biases. However, BENNETT et al. (1994) find that a similar sampling method used for an immunization program evaluation was almost as efficient as simple random sampling. On the other hand, the sample of the municipalities is less vulnerable to the selection bias criticism.

Internal validity of the results will be discussed in more detail in conjunction with each of the chapters. However, it is necessary to outline the general issues. First of all, small sample size of the mayors' survey may be ridden with unobservable noise distorting the results. This problem can be, however, addressed by using triangulation of methods. Another issue, inherent in all of the surveys using the Likert scale, is dealing with central tendency and acquiescence bias. The former is avoidance of extreme answers in the surveys constructed using Likert scale (SI and CULLEN, 1998). Considering the tendency towards a moderate position of the public servants, the mayors' survey may suffer from this bias to a greater extent. They may perceive extreme answers as socially undesirable creating another type of bias.[26] The latter is the respondents' proclivity to agree with the assertions made in the survey question even though their opinions may

[26] Social desirability bias is a tendency towards socially desirable answers (THOMPSON and PHUA, 2005).

differ (JAVELINE, 1999). This bias may be of a particular importance for this study as the majority of questions are formulated as statement and the response options represent different degrees of agreement with these statements. One of the ways to address these issues (and that is what I undertake in this study) is to re-ask the question with a different formulation and include an equal amount of positively and negatively worded items (ibid.). Finally, a related problem is concerned with the inclusion of even or odd response options as either of them may introduce certain biases (SI and CULLEN, 1998). In this study I predominantly use an even number of the response options for statements related to local public goods evaluation in order to force the respondent towards either of the evaluation directions. On the other hand, whenever I deal with ideology- or value-related statements I include the midpoint in order to provide the opportunity for the respondent to express neutrality. In sum, the multi-stakeholder survey this study is based on is vulnerable to the traditional criticisms of similar studies; however, I make sure to acknowledge the existence of the possible biases and to do my best to address related challenges.

Lastly, it is also important to point out the issue of official statistics scarcity in Ukraine. Even though UkrStat provides a relatively good overview of the macro statistics it (along with the regional divisions) fails to make available more detailed local statistics. Numerous appeals and requests for detailed information on local public finance and social infrastructure were filed to UkrStat, Ministry of Finance of Ukraine, Treasury of Ukraine, etc. but they were either ignored or inadequate responses were received. Moreover, there have been substantial concerns with regard to reliability of the official statistical data. In view of these circumstances I designed the questionnaires in a way that it would be possible to obtain respondents perceptions about the issues related to the missing data. In particular, a number of questions were included in the mayors' survey[27] in order to obtain mayors' perceptions about the issues of interest.

[27] The questionnaires used in the study (with the exception of the one for CBO leaders which is available on request) are included in the Appendices D and E.

CHAPTER 3: ARE CBOS PART OF LOCAL GOVERNMENTS' FISCAL STRATEGY?

3.1 Introduction

This study builds on my findings from the previous chapter where it was demonstrated that CBOs in rural Ukrainian communities are predominantly established by or with direct facilitation of local governments. Here I examine the motives of the public managers to establish CBOs in the context of local development challenges. Is it the community members' engagement in local affairs and active citizenship that pressures local bureaucrats to establish democratically governed CBOs? Is it possible that the mayors have different motives while establishing these organizations? Answering these questions will help better understand the incentives of the key actors in local governance arrangements. As a result, this may assist improving existing approaches to local development and governance systems in general.

Numerous development agencies have started promoting establishment of the CBOs in order to create a platform for local communities to get engaged in the development processes and be able to pool and invest resources more effectively (EU, 2006; UNDP, 2007). The idea is to create an opportunity and incentives for the communities to get engaged in local public policy processes – to foster "bottom-up" governance mechanisms in a more structured way. The design of these interventions stems from the scholarly literature on the benefits of participation on local governance outcomes. In particular, higher participation rates may improve accountability of local government via informal compliance enforcement mechanism (ANDREONI, 1990; HOLLANDER, 1990). Higher social pressure may give incentives to the local governments to invest more efforts in fundraising from private sources and, consequently, establish a CBO to facilitate this process. In order to achieve higher participation rates many development agencies condition their funding on different kinds of community members' involvement. This may generate respective incentives and foster more sustainnable participation in the long term. However, the data of the mayors' survey indicates that only few CBOs have comprehensive membership. Furthermore, direct involvement of local authorities in the establishment of these organizations within the sample suggests that public managers may perceive these undertakings rather beneficial. So, what exactly is the benefit or advantage that the CBOs can provide for local governments?

In order to answer that question it is necessary to understand the incentives structure of a representative bureaucrat in Ukraine. Despite the world trends for privatization and governance decentralization, which led to a shift from centralized state public service delivery to a more localized approach with involvement of private sector, nonprofits and communities (WEISBROD, 1997; BENNET et al., 2003), governance arrangements in transition FSU countries remain largely centralized. As pointed out in Chapter 1, highly hierarchical governance arrangements following Soviet "matrioshka" style result in centralization of public resources (SLUKHAI, 2002). In addition, the system of inter-governmental transfers is ridden with clientelism and, as a result, there may be scope for bargaining with higher tiers of the government not only for application-based capital transfers but even for equalization transfers[28] guaranteed by law (WORLD BANK, 2008; TREISMAN 1996a, 1996b, 1997). Personal contacts and ability to negotiate with the officials municipalities' budgets in the transition context (ibid.). These circumstances leave local governments with very little resources to deal with enormous needs in local public goods (discussed in Chapter 1). Revenue generating efforts of local governments within existing legislative framework bring very little marginal benefit. First, local governments in transition countries have limited possibilities to raise own revenues as local taxes and fees are miniscule (LITVACK et al., 1998). In the case of Ukraine there are 5 types of local taxes and fees[29] given by law, which generate negligible revenues (BUDGETARY CODEX OF UKRAINE, 2010). Second, ZHURAVSKAYA (2000) demonstrates that Russian additional efforts in tax collection are crowded out by reductions in the transfers from the central government. She argues that this reduces the incentives for local authorities to collect taxes more efficiently and, thus, limits the ability to implement local development policies. As a result, local bureaucrats find themselves in a situation when, first, resources for local development are extremely scarce and, second, there is very little leverage for them to increase local revenue base.

These circumstances may motivate public managers to seek funding for local development elsewhere. In particular, there are several potential revenue sources that local governments may harness. First, there are a number of donor organizations that provide grants for local development needs. Second, local entrepreneurial funding has been traditionally utilized for local infrastructure development. This practice stems from the Soviet governance system when collective

[28] Capital subventions are application-based transfers to local governments for specific purposes dealing with local capital investments in local public goods. Whereas, equalization transfers are designated transfers from the rayon governments for current expenses (village council's staff salaries, utilities bills, etc.)

[29] Among these are the following: tax on housing estate apart from land plots, unified tax for small entrepreneurs, fees for carrying out some types of entrepreneurial activities, fees for vehicles parking, tourist fees (BUDGETARY CODEX OF UKRAINE, 2010).

farms were responsible for provision of nearly all public infrastructures within the communities (WORLD BANK, 2004). Orientation interviews suggest that up until this day rural entrepreneurs support provision of local public goods in one or the other way. And, finally, despite predominantly low incomes in Ukrainian rural areas there may be a possibility to collect some user-fees within the framework of provision of a specific good. User-fees may be a more efficient way of funding public goods in comparison to tax and grant funding (BARDHAN and MOOKHERJEE, 2006) and some development agencies promote establishing similar systems (EU, 2006).

The caveat with harnessing this private funding for local bureaucrats is current legislation in Ukraine. First, current Budgetary Codex along with the legislation on administrative governance substantially limits decision-making power of local bureaucrats with respect to the revenues and even expenditures. Furthermore, the "LAW ON THE PRINCIPLES OF PREVENTION AND COUNTERACTION CORRUPTION" (2009; 2013) puts local bureaucrats in a situation when receiving charitable contributions from the donors could be taken as a law violation. As a result, many village councils in Ukraine would not initiate some developing projects even though there may be funding available from some private sources. Often mayors ask the donors to directly assist with investments in some public good (e.g. certain renovations in local school or water supply system, etc.) bypassing the village council. However, this limits the village councils substantially in the initiatives they are able to undertake. On the other hand, civic organizations or charitable foundations, representing CBOs in Ukrainian context, provide a possibility to legally receive and expend funds from the donors.[30] Thus, in order to go around existing laws and be able to freely fundraise for local development needs village councils may have the incentives to establish CBOs in their municipalities. As a result, a substantial number of CBOs may be established by local authorities in order to facilitate village councils' fundraising. If that is the case, then CBOs could be considered de facto extensions of local bureaucracies. Understanding the incentives of the key stakeholders in local governance arrangements has the potential to improve current practices in the development interventions and save substantial amounts of donors' and state funds.

I address these questions empirically after a brief theoretical conceptualization encompassing equilibrium strategies of private donors and of a local government. Utilizing the data from the mayors' survey I explain establishment of the CBOs with the help of local governments' incentives and measures of inhabitants' engagement in rural Ukrainian municipalities. To ensure reliability of the results I employ triangulation of methods involving traditional regression techniques and relatively new logic-based methods.

[30] According to the LAW ON CITIZENS' SELF-ORGANIZATION (2001).

The rest of the chapter is organized in the following fashion. Sub-section 3.2 articulates the framework conceptualizing the incentives of local government we are interested in. Sub-section 3.3 describes the data and methods used along with the discussion of possible measurement errors. Sub-section 3.4 presents main empirical results, whereas Section 3.5 concludes and provides some discussion about the implications.

3.2 Theoretical framework

In order to illustrate the main argument of this chapter (i.e. to see whether Ukrainian CBOs are part of local governments' fundraising strategy or a result of inhabitants' collective action) it is necessary to focus on the incentives of the local authorities. In particular, the incentives of a fiscally constrained local government should be aligned with the tendency for CBO establishment. A thorough review of the related studies generated an idea to utilize and adapt a theoretical framework of ANDREONI and PAYNE (2003) who are looking at a "crowding out" effect of fundraising incentives within charities. They argue that governmental grants will crowd out charities' incentives to attract private funding (from donor agencies, entrepreneurs or members). This is different from the traditional literature on charitable funding crowding out that had argued that donors' preferences are to give less if a charity obtains more state grants (BERGSTROM et al., 1986; ANDREONI, 1998). The focus of the work of ANDREONI and PAYNE (2003), however, was innovatively examining the reactions of the charities themselves to the changes of public funding volumes. In contrast to ANDREONI and PAYNE (2003) the idea of 'crowding out' of private funding by the state grants is applied to the context of local government's incentives to fundraise. My framework differs substantially from the work of ANDREONI and PAYNE (2003) as it focuses on local governments' calculus and involves two stages of a game between donors and a local government. Instead of a number of charities I have a monopoly of public goods provision by local government. In other words, the donors that find themselves in one municipality have a range of options with respect to how much to give but they do not have any choice concerning to whom to give as there is just one government within the municipality. Ultimately, I want to demonstrate that local governments' incentives to raise private funds are inversely related to the amount of official transfers it obtains.

A simple model is based on two major assumptions. First, private donors will be willing to contribute financially to the needs of local development. This is a reasonable assumption to make as numerous development experts and the mayors testify that many private enterprises are ready and willing to contribute to local development in addition to the tax burden. Local entrepreneurial proclivity towards social responsibility may stem from the fact that during the Soviet times collective farms used to be ultimately responsible for public goods

and services provision within the municipalities (WORLD BANK, 2004). And, thus, now communities may have expectations (sometimes unrealistic) for them to get engaged in local development. Second assumption is that they will give only if they are solicited and otherwise they procrastinate. Thus, local entrepreneur will not contribute unless she is asked to do so. This is a technical issue but is also in consistency with the field observations as solicitations obviously increase the likelihood of donations. The origin of this assumption comes from the marketing literature where the agent won't purchase the good until s/he is exposed to the advertisement from the seller (ANDREONI and PAYNE, 2003).

The framework has two stages. During the first stage private donors set their optimal contributions based on the expected level of local government's solicitation and exogenous transfer from higher governmental tier.[31] The village council moves in the second stage exerting optimal fundraising effort based on the available information: governmental transfers and the resulting from the first stage optimal contribution from the donors.

As it is not the main focus of this chapter I just briefly stop the reader's attention on the calculus of private donors in the first stage. I assume that they are identical and decide on the size of the contribution $\mathrm{y_i}$ towards local public goods. Donors' utility is a function of consumption of private goods x_i and public services G provided by the local government of a form:

$$U_i = u_i(x_i, G) \tag{1}$$

A probability that an individual donor is solicited by local government is θ and I assume that it directly reflects governments' fundraising effort (i.e. amount of funding requests, local fundraising campaigns, etc.). In the first stage donor i forms an expectation of local government's fundraising activeness $E_i(\theta)$. Fundraising is costly as it is to some extent a supplementary task for local governments and, thus, I define a fundraising cost $C(\theta)$ with $C' > 0$ and $C'' > 0$ meaning that the cost increases with higher fundraising effort and does it at a higher rate due to function's convexity. The level of public services provision is defined as a sum of individual contributions y_i and transfers from higher tiers of the government T less the cost of fundraising $C(\theta)$:

$$G = \sum_{i=1}^{n} y_i + T - C(\theta) \tag{2}$$

[31] Under these transfers we mostly understand capital subventions as they are dependent on the fundraising efforts of the government. However, equalization transfers may be to some degree dependent on local government's bargaining powers. For more information on local public finance, please, consult Section 1.3.

Here I explicitly assume that (as argued in the previous subsection) locally collected tax revenues are miniscule.

Private donors maximize their utility subject to a budget constraint $x_i + p_i y_i = m_i$ where $0 < p_i < 1$ is a price of giving (for instance, it could be a tax on charitable contributions or some technical obstacles, etc.) and m_i is donor's disposable income. Solving the maximization problem we find optimal contribution level of a donor i:

$$y_i^* = y_i^*(E_i(\theta); T) \tag{3}$$

where $\frac{\partial y_i^*}{\partial \theta} \geq 0$ and $\frac{\partial y_i^*}{\partial T} \leq 0$. As a result, private donors will contribute less to the local government as it obtains more official transfers from the higher tiers of the government. This effect represents a classical "crowding out" with respect to donors' incentives and it has been closely examined in the literature (e.g. BERGSTROM et al., 1986). Along these lines, the donors react to the transfers from higher tiers of the government.

We can now turn to the second stage and the problem of choosing Nash equilibrium strategy faced by the local governments. As fundraising is not a primary task of the local governments they perceive it as something to be "endured" in order to move local development forward. In other words, bureaucrats may choose "an easy life" and not engage in extra-budgetary fundraising. Thus, just as argued in the literature focusing on nonprofits (e.g. CALGA and WEISBROD, 2000) village councils may not be pure revenue maximizers and have a utility of a form:

$$V = G(\theta, T) - s\theta \tag{4}$$

where $s \geq 0$ is a disutility of fundraising activities for local governments. Given observable in the second stage aggregate optimal contribution from the private donors $Y^* = Y^*(\theta, T) = \sum_{i=1}^{n} y_i^*$ local government will solve its maximization problem by equating marginal benefit from private fundraising to its marginal cost: $\frac{\partial Y^*}{\partial \theta} = \frac{\partial C}{\partial \theta} + s$. Disutility of fundraising s increases perceived marginal costs of fundraising. In other words, inherent aversion of fundraising due to ex ante beliefs of local bureaucrats or other factors (e.g. status quo bias, fear of persecution from higher tiers of the government, etc.) may impede them from fundraising. Here I only consider government's decision-making with respect to its fundraising efforts and not pertaining to bargaining over higher equalization transfer with upper governmental tiers. In reality they may be deciding whether to invest their efforts in fundraising from private sources or to engage in bargainning over the official transfers with higher governmental tiers. TREISMAN (1996a; 1996b; 1997) and HALL (2010) found support for the link between the success of obtaining state funding and government's bargaining capacity.

Inter-governmental bargaining, however, is not the focus of the model and I don't stop the reader's attention here.

Maximizing (4) subject to equilibrium sub-game aggregate private donations Y^* village councils will chose optimal fundraising effort that directly depends on the official transfers:

$$\theta^* = \theta^*(T) \tag{5}$$

Note that totally differentiating the objective function it is possible to show that the effect of additional marginal official transfer negatively affects fundraising incentives. From the total differential we obtain:

$$\frac{\partial \theta^*}{\partial T} = -\frac{\partial^2 G/\partial T \partial \theta}{\partial^2 G/\partial \theta^2} < 0 \tag{6}$$

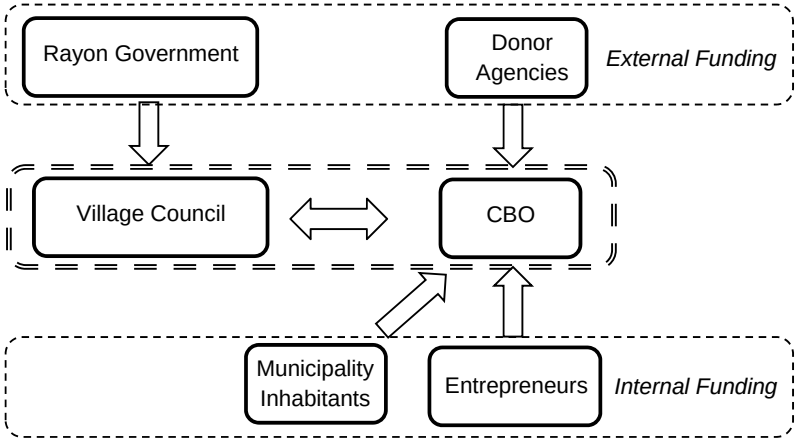
The sign of the numerator follows from the donors' calculus who will contribute less as the local government gets more state funding. Thus, the numerator is negative. Negativity of the denominator follows from the second-order condition of the local government's utility maximization problem. As a result, negative sign of this derivative indicates that local governments react to increases in official transfers from higher tiers of the government by reducing their local fundraising effort.

Having examined strategies of both, local governments and donors, it is important to point out what this model is not considering explicitly. First, I am not focusing here on determination of the official transfers as it would be necessary to introduce a political economy model involving intergovernmental bargaining scheme (e.g. PERSSON and TABELLINI, 1996). However, it is worth pointing out that local governments with higher capacities are more likely to both have better bargaining powers and be able to implement local fundraising efforts. The decision to exert efforts in one or the other avenue may depend on the marginal effectiveness and marginal costs of bargaining and fundraising efforts. Including these aspects in the model would unnecessarily complicate derivation of the result. Finally, the model may be extended by introducing the pressures on the bureaucrats from the side of the community. Active communities may generate additional incentives for the local governments to get engaged in result-based public goods delivery. Electoral control and interest groups frameworks may be informative for this extension (e.g. BARON, 1994). On the other hand, another potential mechanism could be based on a predominant standard of morality within a community applied by the residents towards the government (HOLLANDER, 1990). Moreover, OSTROM'S (1990) collective action theory may help explaining community cooperation challenge in exerting pressure on local government. Furthermore, effectiveness of local collective action may be improved with higher

levels of social trust within the community (e.g. BJORNSKOV, 2010; BERG et al., 1995). In particular, it may reduce the need for sanctioning the non-cooperators, as suggested by ANDREONI and GEE (2011).

This model has a number of important implications for understanding the incentives of local governments establishing CBOs in rural Ukraine. First, I explicitly assume establishment of the CBO as a higher fundraising effort of the local government. If that is correct then we should be able to observe the effect of local revenue substitution ("crowding out effect"). Observing this relationship would give a chance to conclude on the role of the CBOs in local governance arrangements. Figure 12 demonstrates major relationships. Village council and local CBO could be seen as a one institutional arrangement because the CBO may represent an extension of local bureaucracy. That is why there is a dotted line around this tandem. However, the funds flows (depicted by one-way arrows) from municipality inhabitants, entrepreneurs, and donor agencies would be channeled through the CBO. Whereas, the transfers from higher tiers of the government are going traditionally to the village council's budget. Direct control of both of the funding streams may allow the municipality to substantially expand fiscal possibilities. As a result, local public goods $G(\theta, T)$ are more likely to be delivered

Figure 12: Local governance arrangement in Ukraine



Source: Own elaboration.

with higher fundraising effort θ whereas the village council may have substantially less control over the transfers from the higher tiers of the government T.

As I primarily want to see if local governments react to changes with funding situation by adjusting their fundraising efforts and, thus, establishing CBOs in

order to facilitate these efforts I formulate the resulting hypotheses in the following fashion:

H3.1: CBOs are more likely to be established in the more fiscally constrained municipalities.

Thus, I want to see if the municipalities use CBOs as vehicles for their fundraising from private sources in case the higher governmental tiers reduce official transfers or if marginal efficiency of fundraising from the official sources is lower than from the private ones (e.g. overburdening bureaucratic requirements for application, bargaining costs, etc.). As a result, with the help of this hypothesis I basically test equations (5) and (6) from the theoretical model.

Another way of looking at the fiscal constraints of the municipality is to assess availability of private funding. Thus, the second hypothesis is formulated in a way that allows understanding if authorities' perception of private funding availability motivates CBOs establishment:

H3.2: CBOs are more likely to be established in the municipalities with better fundraising opportunities from the local entrepreneurs and population.

Furthermore, in order to obtain a more comprehensive picture of the local governments' incentives I test whether strong civic position of local inhabitants has the potential to motivate the village council to fundraise and, thus, establish a CBO. Consequently, I formulate the hypothesis in the following fashion:

H3.3: Higher rates of participation and social trust are likely to bring about the establishment of a CBO.

Finally, even though not directly addressed by the theoretical framework (although it could be extended to include it) it may be instructive to explore the role of the local government's capacity in establishment of the CBOs. Capacity could affect the authorities' success probability with fundraising from both private sources and from the higher tiers of the government. For instance, higher number of staff or more qualified staff may be able to cope better with bureaucratic hurdles of applications for capital subventions and at the same time to achieve better results in attracting funds from donor agencies, entrepreneurs and local population. In order to achieve the latter local governments would probably have to establish CBOs in order to make this fundraising more effective. Assuming that marginal effectiveness from private sources is higher for the village council I formulate the fourth hypothesis in the following fashion:

H3.4: Higher capacity of the village council is likely to bring about the establishment of a CBO.

In sum, testing these hypotheses will allow to better understand the incentives structure of local governments in Ukraine. Development interventions may be

substantially improved by taking a thorough account of the incentives of the key stakeholders.

3.3 Empirical strategy

The question this chapter seeks to answer is whether establishment of local CBOs in Ukraine is part of local governments' response to fiscal constraints. In other words, I am looking for answers to the question: Do local governments in rural Ukraine react to fiscal constraints by establishing CBOs in their municipalities? Dealing with the shortcomings of the available data I use triangulation of methods (WOLF, 2010). In particular, I, first, use standard econometric discrete choice models in order to explain establishment of the CBOs and, second, I expand and back up the results with the help of an alternative method based on Boolean Logic – fuzzy sets Qualitative Comparative Analysis (fsQCA). The data is drawn from two surveys: mayors' and residents'. In addition, the survey data is complemented by the data from the official statistics agency in Ukraine (UkrStat).

(i) Discrete choice models

I start testing the hypotheses by, first, employing Probit model with a dependent variable CBO that reflects establishment of a CBO within a given municipality. A CBO is defined along the lines of Section 1.4 – as an officially registered civic organization, charitable foundation, or as a "body of population's self-organization" (Ukrainian legal form) that is designated to further the goals of local development and to represent local community via membership and democratic governance approaches. In addition, I use an index CAPCBO reflecting the CBO's success with fundraising. As the index represents an ordinal score I employ ordered Probit model. Following the theoretical framework, CAPCBO should be higher the more fiscally constrained is a given municipality.

The idea of the Probit estimation is based on the notion of latent regression with unobservable dependent variable having a cutoff value determining the binary choice (GREENE, 2012). Following WOOLDRIDGE (2002) it could be formulated in the following fashion:

$$P(Y = 1|X) = \Phi(\beta_0 + \beta X) \tag{7}$$

where Y is the vector of a response variable assuming values of 0 or 1 and X is the vector of explanatory variables $(X_1, X_2, \dots, X_k)$. Φ is the standard normal cumulative distribution function (cdf) which ensures the response values to be strictly between 0 and 1 and it is of the following form:

$$\Phi(z) = \int_{-\infty}^{z} \varphi(v)dv = \int_{-\infty}^{z} (2\pi)^{-1/2} exp\left(-\frac{v^2}{2}\right) dv \tag{8}$$

I use Probit as opposed to Logit model because the underlying Normal Distribution is more suitable to describe the events of interest in comparison to the Logistic Function, which has been used up to sometime in the past simply because of computational simplicity (WOOLDRIDGE, 2002). Statistical software estimates the model using maximum likelihood estimation (MLE) with the following log-likelihood function:

$$l_i(\beta) = y_i ln[\Phi(x_i\beta)] + (1 - y_i) ln[1 - \Phi(x_i\beta)] \quad (9)$$

Furthermore, ordered Probit model is set up similar to the binary Probit except that the cutoff values now determine different choices. In other words, following GREENE (2012), the probability of getting choice j is the probability that estimated function is within the range given by the respective cutoff values:

$$P(y_i = j) = P\left(\kappa_{j-1} < \beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \cdots + \beta_k X_{ki} + \varepsilon_i \leq \kappa_j\right) \quad (10)$$

Accordingly, with the hypotheses in mind, I specify the econometric model in the following fashion:

$$P(CBO_i = 1) = \beta_{0i} + \beta_{1i} FisConst_i + \beta_{2i} Part_i + \beta_{3i} CapVC_i + \beta_{4i} Z_i + \varepsilon_i \quad (11)$$

where $FiscConst_i$ is the degree of fiscal constraints of the municipality i including availability of state and private funding; $Part_i$ – is a vector of potential determinants of the social pressure on the local government (e.g. participation rates and social trust); $CapVC_i$ – village council i's capacity; and, finally, Z_i is the vector of controls. Estimation results should provide us with the evidence as to whether establishment of local CBOs is part of local government's fundraising strategy. I expect variables related to village council's fiscal constraints be negatively related to the dependent variable and the variables related to availability of local funding should increase the likelihood of a CBO establishment. Following the third hypothesis, proxies for participation rates and social trust should be positively related to the probability of CBO existence. Finally, local government with higher capacity should be more able to implement innovative fundraising initiatives and, thus, is more likely to establish a CBO.

Among independent variables it is, first, necessary to describe the variable SUBSIDIES that accounts for the mayors' perceptions of predictability of obtainning capital subsidies[32] in case applied for. As a result, this variable reflects the likelihood of obtaining funds for local capital investments in case the village council exerts fundraising efforts. Analogously, *EQTRANS* proxies for predictability of equalization transfers from the rayon government. In particular, it measures the likelihood for the local bureaucrats to receive the amount they specified in the planned expenditures for the next year in the form of equalization transfer.

[32] Targeted application-based subsidies from the higher tiers of the government designated for local capital investments. For more information, please, consult Subsection 1.4.

According to the theoretical framework, higher predictability of both subsidies and transfers should discourage municipalities from fundraising and, as a result, reduce the likelihood of CBO establishment. *AUTONOMY* reflects mayors' perceptions about the extent to which local budgets are filled by the tax revenues from local enterprises. Following BATES (2008), TIMMONS (2005) and BRATTON (2012), higher fiscal autonomy may give the municipalities a necessary leverage for bargaining in allocation of the official transfers with the higher tiers of the government (in the case of Ukraine it is rayon (NUTS 3) and oblast (NUTS 2) authorities). In addition, fiscal autonomy may increase local governments' decision-making freedom with respect to local expenditures (BRATTON, 2012). I expect more self-sufficient municipalities to exert less fundraising efforts and, thus, CBO establishment is less likely. On the other hand, *FUNDBUSINESS* and *FUNDPOP* are the measures of entrepreneurs' and inhabitants' propensities to contribute financially towards local public goods. The former is taken directly from the mayors' survey and the latter represents average municipality-wide individual perceptions about the community's proclivity to make regular monetary contributions. Arguably, propensity to make regular financial contributions best reflects community ability to cooperate as it generates relatively high participation costs for the community members and, thus, demonstrates whether individuals have managed to overcome free-riding problem. As these variables represent local fundraising opportunities, according to the second hypothesis they should be positively associated with higher municipality's fundraising efforts, i.e. higher probability of a CBO establishment.

Furthermore, the variable *CAPACITY* is an index for a local government's capacity, which is a simple sum of all the staff positions (distinguishing between full- and part-time employments) and respectively allocated personal computers (PCs) within the village council's apparatus. Due to limited funding local bureaucrats in rural Ukraine still do not take PCs for granted. As a result, village council's capacity is proxied not only by the amount of staff but also by the available PCs, which arguably improve productivity of a given labor unit.

In order to proxy for the level of participation I use two different variables in order to capture possible effect of different types of participation: the level of peer pressure within the community *PEER* and the degree of general involvement in the municipality affairs *INVOLVE*. Should the Hypothesis 3.3 be confirmed, these variables should be positively associated with the probability of a CBO establishment. I also include a variable *TRUST* reflecting the level of social trust among the inhabitants of the municipality. The variable is an index constructed from two concepts widely discussed in the trust-related literature: extending trust to others (SELIGMAN, 1998; MEIER, 2006) and individual expectation of trustworthy behavior of others (DAS GUPTA, 1988; WILLIAMSON, 1993). Higher

levels of trust and trustworthiness among the community members will foster reciprocal behavior and, thus, improve cooperation (AXELROD, 1986; CHARNESS and RABIN, 2002) leading to a higher community pressure on the local government to deliver public goods. As argued before, this pressure may result in higher fundraising efforts of local government and, thus, establishment of a CBO. Then, I control for inhabitants' satisfaction with the local public goods using a variable *PGINDEX* that should be negatively associated with the fundraising efforts. This variable is a composite index accounting for 9 different public goods excluding water supply, healthcare, and education. The reason these three public services were excluded is to control for the potential endogeneity problem. In particular, higher fundraising efforts of the village council and an established CBO may improve local public goods. As the CDD projects usually single out the above mentioned public goods as priorities they were excluded from the index. As a result, this minimized the endogeneity problem (although it cannot be completely ruled out) and with the help of *PGINDEX* it should be possible to control for local needs. Higher needs should motivate authorities to exert more fundraising efforts in order to be able to meet those goals.

Finally, I use a number of controls. First, regional effects are accounted for by the region dummies. In order to save some degrees of freedom in the small sample of the municipalities I use dummies reflecting supra-rayon agglomerations of municipalities based on proximity to each other.[33] Furthermore, municipality's population *POP* on the one hand should increase the probability of CBO establishment as urban areas may bring local bureaucrats closer to the information sources about different fundraising options and the respective authorities responsible for registering nonprofit organizations. Number of villages *#VIL* along with the distance to the nearest town (at least a rayon center) *DIST* are also controlled for as respective higher values may reflect the degree of urbanization of a given municipality.

(ii) Fuzzy-sets Qualitative Comparative Analysis (fsQCA)

In order to take a look at the data from a case-oriented standpoint and complement the story told by the discrete choice models I utilize an alternative method – fsQCA. It is a technique based on Boolean logic that identifies combinations of sufficient conditions for an outcome of interest (RAGIN, 2000; LONGEST and VAISEY, 2008). The idea is to look at the relationships between the conditions (analogous term for variables) coded by the values in the range from 0 to 1 in accordance to the membership in a set of a condition. Based on the Theory of Sets subset relationships between the configurations of the conditions and the

[33] The reader is referred to Appendix B.4 for getting acquainted with the way region dummies were constructed.

outcome signify sufficiency. For instance, testing a hypothesized relationship $A * B \rightarrow Y$[34] may result in a number of configurations of sufficient conditions: aB, A, b, etc. Upper case letters mean level of set membership and lower case ones – negations. There are also ways (analogously to the traditional econometric techniques) to test the strength of the obtained relationships between the configurations of the sufficient conditions and the outcome. Measuring the degree of membership of a condition set in the outcome set reveals the extent a solution is logically consistent (RAGIN, 2006). Following LONGEST and VAISEY (2008), consistency of the solution is defined as following:

$$I_{XY} = \sum min(x_i, y_i) / \sum x_i \tag{12}$$

where X is the obtained configuration of the sufficient conditions, Y – outcome set, whereas x_i and y_i is the degree of membership of a given observation in the configuration and the outcome set respectively. As a result, values closer to unity signify more consistent relationships. On the other hand, in order to measure the importance of a solution a concept of coverage is used. In particular, it is defined in the following way:

$$C_{XY} = \sum min(x_i, y_i) / \sum y_i \tag{13}$$

In addition, fsQCA allows finding the most parsimonious solutions. Having obtained the configurations of the sufficient conditions it is possible to utilize Quine-McCluskey algorithm (RAGIN, 1987) that uses a procedure of logical reduction. For instance, if we have obtained a formula $ABC + AB \rightarrow Y$ it is possible to further reduce it to $AB \rightarrow Y$.

I use this method for two reasons. First, as it does not rely on the law of large numbers it guarantees reliability of results also in relatively small samples and, as a result, it is used widely in public policy studies where small N is an inherent feature of the research (RIHOUX, 2006; LONGEST and VAISEY, 2008). Second, fsQCA is particularly useful in the situations when it is important to identify interacting relationships between the potentially sufficient conditions. As a result, the configurations of sufficient conditions could be compared to the interaction terms of traditional regressions (ibid.).

I proceed following a two-stage approach of SCHNEIDER and WAGEMANN (2006) who, first, identify remote and proximate conditions. The latter are the factors that are exogenous to the key stakeholders of the theoretical framework (ibid.). Whereas the latter are the factors that are closer associated with the actions of the key actors (ibid.). In the first stage I identify the combinations of sufficient conditions among the remote factors. Then, in the second stage I run fsQCA

[34] In other words, a combination of conditions A and B result in an outcome Y.

algorithms including each of the configurations obtained in the first stage and the proximate factors. The aim of the whole procedure is to deal with the problem of limited diversity – a situation when the configurations of sufficient conditions do not have any corresponding empirical observations.

In the context of this study the remote factors are:[35] village council's fiscal autonomy, predictability of capital subsidies and equalization transfers, level of social trust and municipality's population. Again, these are the factors that are to a minimum extent in control of local government and donors. As a result, in the first stage I will test the following hypothesis specifically formulated to facilitate fsQCA:

H3.5: Establishment of a CBO/existence of a higher capacity CBO within a municipality is likely to be brought about by the following conditions:

1) *Lower fiscal autonomy (autonomy);*[36]
2) *Lower predictability of capital subsidies and equalization transfers (subsidies and eqtrans);*
3) *Higher levels of social trust within a municipality (TRUST);*
4) *Municipality's smaller population (pop).*

The hypothesis could be restated utilizing logic epistemology: $autonomy * subsidies * eqtrans * TRUST * pop \rightarrow CBO/CAPCBO$. Now, the proximate factors are: level of municipality-wide average involvement in local affairs, capacity of local village council, availability of funding from entrepreneurs and inhabitants within the municipality. In the second stage I will run fsQCA algorithms with each of the resulting configurations of sufficient conditions from the first stage and these proximate conditions. As a result, hypothesis related to the second stage could be formulated in the following fashion:

H3.6: Establishment of a CBO/existence of a higher capacity CBO within a municipality is likely to be brought about by the following conditions:

1) *Higher average levels of involvement in local affairs (INVOLVE);*
2) *Higher capacity of the village council (CAPVC);*
3) *Better availability of funding from local entrepreneurs and inhabitants (FUNDBUSINESS and FUNDPOP).*

It could be formulated with the help of the following logic-based formula: $INVOLVE * CAPVC * FUNDBUSINESS * FUNDPOP \rightarrow CBO/CAPCBO$.

Hypothesized relationships in both cases parallel the hypotheses formulated for the discrete models. Essentially, I want to see whether I can, first, replicate the

[35] It is to a certain extent arguable which factors to be classified as remote or proximate.

[36] Note that a condition in lower-case letters means negation of the condition calibrated as a fuzzy set membership.

results obtained with traditional econometric techniques and, second, identify additional pathways to establishment of a CBO that cannot be identified by discrete choice models.

All the measures of the conditions are based on the quantitative data from our dataset. As fsQCA is based on the degree of membership of the condition sets in the outcome set the data was calibrated as fuzzy sets, i.e. continuous values from 0 (fully out) to 1 (fully in). Calibration or "fuzzification" of available data is the part of the method that is probably the most subjective and depends on "good judgment" of the researcher (RAGIN, 2000). Thus, it is important to be exceptionally transparent with the calibration process. Table 5 presents the way calibration was carried out.

I used different strategies for "fuzzification" that depended on the original variable's distribution. If a variable was close to be normally distributed (the case for *FUNDPOP*, *CAPVC* and *TRUST*) I used the following approach: zero means "fully out" and corresponds to the variable's values between 0 and the first quartile inclusive; 0.33 means "more out than in" and corresponds to the range of values between the first quartile and the average inclusive; 0.67 means "more in than out" and corresponds to the range from the mean to the third quartile inclusive; the rest of the values could be considered as "fully in" and are assigned a fuzzy value of one. On the other hand, for those variables with the distributions skewed to the right (for instance, the case for *EQTRANS* and *FUNDBUSINESS* which are based on 1 to 4 Likert scales) I use the following assignment rules: '0' corresponds to '1' and '2' of the Likert scale; '0.5'/'0.75' corresponds to '3' of the Likert scale; and, finally, '1' – to '4' of the Likert value. The rest of the variables are calibrated in a straightforward fashion assigning the values '0', '0.33', '0.67', and '1' to '1', '2', '3', and '4', respectively.

Table 5: Calibration of the fuzzy sets

Condition	Measure	Min	Max	Mean	Median	Definition of Fuzzy Set Values
AUTONOMY	The degree to which budget is filled by local taxes (fiscal autonomy).	1	4	2.30	2	0: Likert scale value of '1'; 0.33: Likert scale value of '2'; 0.67: Likert scale value of '3'; 1: Likert scale value of '4'.
FUND-BUSINESS	The degree to which local business has contributed financially to local development.	1	4	2.50	2	0: Likert scale value of '1'; 0: Likert scale value of '2'; 0.75: Likert scale value of '3'; 1: Likert scale value of '4'.
SUBSIDIES	Predictability of subsidies for the next fiscal year.	1	4	1.74	1	0: Likert scale value of '1'; 0.33: Likert scale value of '2'; 0.67: Likert scale value of '3'; 1: Likert scale value of '4'.
EQTRANS	Predictability of equalization transfers for the next fiscal year.	1	4	2.74	3	0: Likert scale value of '1'; 0: Likert scale value of '2'; 0.5: Likert scale value of '3'; 1: Likert scale value of '4'.
FUNDPOP	Inhabitant's proclivity to make regular financial contributions.	1.67	3.13	2.27	2.25	0: between min value and 1st quartile; 0.33: between 1st quartile and median; 0.67: between median and 3rd quartile; 1: between 3rd quartile and max value
CAPVC	Local government's capacity	4	16	7.52	6.38	0: between min value and 1st quartile; 0.33: between 1st quartile and median; 0.67: between median and 3rd quartile; 1: between 3rd quartile and max value.
TRUST	Composite index of residents' trust.	4.55	9.06	6.61	6.61	0: between min value and 1st quartile; 0.33: between 1st quartile and median; 0.67: between median and 3rd quartile; 1: between 3rd quartile and max value.
POP	Municipality population	198	5006	1238	1145	0: between min value and 1st quartile; 0.33: between 1st quartile and median; 0.67: between median and 3rd quartile; 1: between 3rd quartile and max value.

3.4 Results

(i) Descriptive statistics

Before proceeding to the discrete choice models let us examine the descriptive statistics. First of all, survey results indicate that in 18 cases out of 26 municipalities with established CBOs in the sample mayors reported being directly involved in the establishment of the organization. In the rest of the cases village councils also played leading roles in CBOs' establishment even though mayors were not directly involved. Furthermore, CBO leaders are often closely associated with the village councils. In particular, leaders of 17 out of 26 organizations in the sample report having had established their CBOs with the aim of obtaining funding for local development. But, interestingly, only 12 CBO leaders could formulate the organizations' missions in a relatively clear way. Thus, this suggests that there is little understanding about the role the CBO can play within the community apart from being a vehicle for fundraising. Finally, only eight CBO leaders report having members. The validity of these claims about membership is, however, questionable due to social desirability bias of the respondents.[37] As a result, these preliminary figures provide support to the claims that in Ukrainian rural areas non-profits are primarily established in line with the local governments' interests.

Table 6 demonstrates the descriptive statistics. Municipalities with and without established CBOs are almost equally distributed across the sample with 26 and 28 cases respectively. However, in Dnipropetrovskyy region 76.2 % of the municipalities have an established CBO, whereas in Ternopilskyy – only 30.3 %. This is possibly a structural difference representative of the Eastern and Western parts of Ukraine as the municipalities are geographically larger and more urbanized in the East. However, the claim about the link with urbanization remains to be seen in the analysis below.

We can observe a rather large variation in the capacity of the village councils. Despite the fact that according to the law local government's staff is dictated by the municipality's population[38] in reality it varies greatly depending on the bargaining power of the local leaders. Regressing the index of local government's capacity on the population I obtain R^2 of 51.35 % which indicates that there is a substantial amount of unexplained variance and that it is possible to use

[37] In Chapter 4 I present evidence about inhabitants' low participation rates and discuss potential causes.

[38] According to the LAW ON LOCAL SELF-GOVERNANCE (1997) and Cabinet of Ministers' Decree No. 1349 from 3.12.1997, local governments are advised to follow staffing recommendations based on the population of a given municipality. However, orientation interviews reveal that as the majority rural municipalities heavily depends on equalization transfers due to weak tax bases, staffing is often dictated by the rayon governments.

both of the variables (*CAPVC* and *POPULATION*) in the Probit and ordered Probit regressions avoiding multicollinearity problems.

It is also worth pointing out that the mean of the variable *SUBSIDIES* indicates general tendency towards bad predictability of the capital subsidies. This is reflective of the general situation across Ukraine as municipalities have remarkably little control over the rayon-level decisions about granting a subsidy to a respective municipality. And, finally, FUNDPOP's relatively high mean may mirror population's general willingness to contribute financially to local public goods. However, self-declarative nature of that variable may create an upward bias.

Table 6: Descriptive statistics for the Probit and ordered Probit models (n=54)

Variable	Description	Mean	Std. Dev.	Min.	Max.	1st quart.	3rd quart.
Dependent variables							
CBO	Existence of a CBO within a municipality (1-yes; 0-no)	0.48	-	-	-	-	-
CAPCBO	Index for CBO capacity.	0.80	1.00	0	3	0	1
Independent variables							
CAPVC	Index accounting for amount of full- and part-time employees plus amount of PCs	7.52	2.97	4	16	5.13	9.5
SUBSIDIES	Predictability of receiving capital subsidies for next fiscal year if applied for (1 – not predictable at all; 4 – very predictable)	1.74	0.86	1	4	1	2
EQTRANS	Predictability of equalization transfer for the next fiscal year (1 – no predictable at all; 4 – very predictable)	2.74	0.94	1	4	2	3
AUTONOMY	The degree to which budget is filled by local taxes (fiscal autonomy)	2.3	1.28	1	4	1	4
FUND-BUSINESS	The degree to which local business has contributed financially to local development during last two years	2.5	1.09	1	4	2	3
FUNDPOP	Municipality-wide average perceptions about the community's proclivity to make regular monetary contributions	2.27	0.31	1.67	3.13	2.08	2.5
PEER	Municipality-wide average proclivity to exert peer pressure	4.94	1.24	2.64	8.25	4.13	5.6
INVOLVE	Municipality-wide level of involvement in local affairs	4.33	1.08	2.00	6.25	3.7	5.17
TRUST	Composite index of residents' trust	6.61	0.89	4.55	9.06	6.09	7.22
PGINDEX	Composite index reflecting residents' satisfaction with local public goods	2.65	0.29	2.14	3.4	2.43	2.85
POP	Municipality's population	1238	789	198	5006	745	1437
#VIL	Number of villages within a municipality	2.59	2.00	1	10	1	3
DIST	Distance to the nearest town (at least rayon center)	19.76	11.72	5	70	12	25

(ii) Discrete choice models results

Table 7 reports the results of the estimations. Following BABYAK (2004) and BERGTOLD and MERRIL-FEATHERSTONE (2011), one needs to exert caution evaluating the results of the nonlinear models with small samples to avoid the issue of overfitting. In order to address this problem I include several specifications with different degrees of freedom: with and without region dummies,[39] with and without interaction terms.

Let us, first, examine the coefficients of the variables related to the fiscal constraints. Fiscal autonomy *AUTONOMY*, as expected, in most of the specifications appears to be negatively significantly related to the probability of the CBO establishment or the probability of having higher capacity CBO within the municipality. Analogously, predictability of equalization transfers *EQTRANS* is negatively and significantly associated with the dependent variable. As a result, the evidence does support the first hypothesis claiming that CBOs are more likely to be established in those municipalities that find themselves with lower and less predictable revenues. In other words, the village councils react to the lack of funds for delivery of local public goods by expanding their fundraising possibilities and, thus, establishing CBOs. In general, these results are in line with the theoretical model. In particular, government's equilibrium fundraising efforts θ^* are inversely depended on its fiscal constraints T. However, surprisingly, predictability of the capital subventions *SUBSIDIES* does not appear significant. On the contrary, in some Probit specifications the coefficients have positive signs and are close to the conventional 10 % significance level.

What could be a potential explanation for the unexpected sign of the coefficient of the capital subsidies even though it is not significant?[40] Capital subventions are application based subsidies that require development of a project proposal and related activities that necessitate certain skills. In contrast, equalization transfers appear to be more exogenous to the local governments as there is a certain guaranteed level that the municipality will receive irrespective of its efforts. Consequently, those village councils that are more successful with fundraising are more likely to be able to harness both the state (subsidies) and private (local entrepreneurs, donor agencies, inhabitants) funding. In other words, more

[39] The Wald test of joint significance of the coefficients suggests that regional effects do not exert significant effects (p-value of joint significance is 0.826). Even though Table 7 presents the estimations with regional controls the results are not altered by excluding them.

[40] Here I provide a viable explanation for the unexpected sign even though it is not significant because fsQCA results suggest that a condition *SUBSIDIES* is part of the configurations of sufficient conditions for CBO establishment and higher levels of CBO capacity.

Table 7: Probit and ordered Probit regression results

Independent variables	**(1)**		**(2)**		**(3)**		**(4)**		**(5)**	
	Probit	O. Probit	Probit	O. Probit	Probit	O. Probit	Probit	O. Probit	Probit	O. Probit
SUBSIDIES	0.453	0.387	0.606	0.267	0.696	0.233	0.533	0.171	0.592	0.228
	(0.169)	(0.129)	(0.138)	(0.464)	(0.115)	(0.567)	(0.253)	(0.650)	(0.137)	(0.555)
FUNDBUSINESS	0.667**	0.352	0.849**	0.670**	0.811**	0.736**	1.282***	0.976***	0.842**	0.717**
	(0.024)	(0.180)	(0.012)	(0.020)	(0.020)	(0.018)	(0.003)	(0.003)	(0.012)	(0.015)
AUTONOMY	-0.438*	-0.223	-0.470*	-0.273	-0.529**	-0.432*	-0.906***	-0.630**	-0.447*	-0.323
	(0.086)	(0.285)	(0.073)	(0.229)	(0.043)	(0.069)	(0.001)	(0.019)	(0.079)	(0.187)
EQTRANS	-0.376	-0.411*	-0.514*	-0.430	-0.645**	-0.642**	-0.479*	-0.236	-0.516**	-0.442*
	(0.143)	(0.067)	(0.052)	(0.103)	(0.040)	(0.023)	(0.098)	(0.396)	(0.045)	(0.087)
PGINDEX	-1.240	-0.309	-1.777*	-1.249	-1.767*	-1.631	-1.547*	-1.266	-1.702*	-1.263
	(0.187)	(0.703)	(0.083)	(0.190)	(0.075)	(0.100)	(0.088)	(0.179)	(0.091)	(0.189)
CAPVC	0.388***	0.170*	0.412**	0.353*	0.442*	0.523**	0.447*	0.514**	0.321	0.363*
	(0.007)	(0.075)	(0.044)	(0.071)	(0.067)	(0.025)	(0.064)	(0.027)	(0.136)	(0.080)
TRUST	-0.299	-0.420	-0.429	-0.656**	-0.323	-0.457	-0.831*	-0.890**	-0.416	-0.596*
	(0.320)	(0.173)	(0.209)	(0.039)	(0.321)	(0.144)	(0.057)	(0.017)	(0.217)	(0.056)
PEER	-0.212	-0.233	-0.153	-0.348	-0.077	-0.450	0.078	-0.190	-0.159	-0.417
	(0.351)	(0.179)	(0.571)	(0.199)	(0.761)	(0.119)	(0.726)	(0.444)	(0.571)	(0.148)
FUNDPOP	2.464**	2.093***	2.655***	2.598***	2.061*	1.916**	4.214***	3.835***	2.681***	2.808***
	(0.014)	(0.006)	(0.009)	(0.003)	(0.053)	(0.033)	(0.000)	(0.000)	(0.008)	(0.002)
INVOLVE	-0.199	-0.063	-0.237	-0.077	-0.461	-0.405	-0.087	-0.138	-0.246	-0.189
	(0.509)	(0.744)	(0.453)	(0.756)	(0.186)	(0.179)	(0.775)	(0.621)	(0.429)	(0.488)
POP	0.001	0.000	0.001	0.000	0.001	-0.000	0.002**	0.000	0.001*	0.000
	(0.123)	(0.253)	(0.118)	(0.528)	(0.240)	(0.711)	(0.026)	(0.512)	(0.098)	(0.796)
EQTRANS*FUNDBUSINESS					-0.172	0.087				
					(0.390)	(0.667)				
EQTRANS*FUNDPOP					-1.949*	-3.334***				
					(0.055)	(0.008)				
AUTONOMY*FUNDBUSINESS							0.704***	0.367**		
							(0.008)	(0.044)		
AUTONOMY*FUNDPOP							1.222	1.374*		
							(0.129)	(0.074)		
SUBSIDIES*FUNDBUSINESS									-0.264	-0.014
									(0.248)	(0.944)
SUBSIDIES*FUNDPOP									-0.900	-1.180
									(0.474)	(0.194)
Constant	-2.630		-2.049		-0.166		-7.032*		-1.987	
	(0.317)		(0.541)		(0.963)		(0.069)		(0.563)	
Regional controls	No		Yes		Yes		Yes		Yes	
R^2/Pseudo R^2	0.380	0.232	0.418	0.286	0.444	0.351	0.627	0.338	0.427	0.300
N	53	53	53	53	53	53	53	53	53	53

Notes: * Significant at 0.1; **Significant at 0.05; ***Significant at 0.01. p-values are reported in brackets. Regional controls were implemented with a help of regional dummy variables and are not reported due to space limitations.

fiscally constrained municipalities are more likely to fundraise from different sources. Thus, within the framework of the theoretical model *SUBSIDIES* probably proxy more for equilibrium fundraising efforts θ^* as opposed to originally thought fiscal constraints T.

Both of the variables proxying for private funding availability, entrepreneurial *FUNDBUSINESS* and inhabitants' *FUNDPOP*, have persistently positive and signifycant coefficients. This grants solid support in favor to the second hypothesis. In sum, the CBOs are more likely to be established in those municipalities that present better fundraising opportunities from local entrepreneurs and municipality inhabitants.

Is there a crowding out effect between the public and private funding obtained by the municipality in the spirit of the literature on non-profits (e.g. ANDREONI and PAYNE, 2003)? In order to answer this question I include interaction terms that should provide a clue as to whether the effect of one variable changes with higher values of the third variable (WOOLDRIDGE, 2002). In order to save degrees of freedom I include only two interactions per specification and this results in 6 specifications with three different pairs of interaction terms in addition to the baseline Probit and ordered Probit specification. I find that the interaction *EQTRANS*FUNDPOP* has a negative significant coefficient. This means that the more predictable equalization transfers are for a village council the less it is motivated by the availability of funding from the local population. Surprisingly, I find the interaction terms *AUTONOMY*FUNDBUSINESS* and *AUTONOMY* FUNDPOP* to be positive and significant. A viable explanation is that higher degrees of fiscal autonomy of a given municipality suggest higher number of functional businessses that are able to make more charitable contributions. Higher economic activity within a municipality is likely to stimulate the inhabitants to give monetary contributions towards the causes of local development. Finally, the interactions between the capital subventions and the availability of private funding do not appear significant probably because of a more complex relationship between *SUBSIDIES* and the probability of establishment of a CBO.

Furthermore, it is important to point out that the village council's capacity is a significant predictor of its fundraising efforts. This grants support to the Hypothesis 3.4. More effective local governments with more staff members are more likely to obtain necessary information about the possibility and procedures of CBO establishment along with further management. Moreover, higher capacity councils have more opportunities to study relevant legislation and establish necessary contacts with other authorities during the CBO registration and consequent maintenance.

Now, let us take a look at the variables related to the Hypothesis 3.3 about the claim that active citizenship of local population may motivate local government

to establish a CBO. Firstly, both of the participation proxies *INVOLVE* and *PEER* do not appear to be significant predictors of the probability of CBO establishment. In addition, in some of the specifications I find a negative significant coefficient of the proxy for social trust *TRUST*. This is a bit puzzling in the light of the arguments outlined in Subsection 3.2 that social trust may enhance social pressure on local government. A plausible explanation for these coefficients could be that local population directs their efforts in a different avenue – informal collective action on direct public goods provision instead of monitoring and sanctioning the government. In the communities with higher levels of the social trust informal cooperation may exist and individuals directly collaborate on public goods provision: e.g. levying informal fees for water supply system maintenance or taking care of the state of the roads within the municipality, etc. As we tend to observe only those organizations that were officially registered by the village councils and not the informal organizations, social trust may well be negatively correlated with the CBO existence in respective communities. Moreover, as it will be revealed in Chapter 5, there may be a crowding out effect between formalization of local collective action in a form of a CBO and informal cooperation between the community members.

Among the control variables it is necessary to point out the index for public goods provision *PGINDEX* as in some of the specifications it appears to be negative and significant. Thus, the decisions to establish a CBO may be based on the size of local needs. In addition, in some specifications municipality population exerts a positive and significant effect on the dependent variables. This is in line with my conjectures that the governments located in more urban areas are more likely to have good access to information about establishment and managements of the CBOs and are more proximal to the respective authorities responsible for registering the organization.

(iii) fsQCA results

As was pointed out above, fsQCA gives us an opportunity to identify multiple configurations of sufficient conditions resulting in an outcome of interest. This means that there is a possibility to single out even a small number of cases that exhibit different (from the major trend) configurations of sufficient conditions. This feature can be particularly useful to test the validity of the collective action pathways to CBO establishment.

Let us, first, take a look at the models with a binary outcome – a mere fact of whether a CBO was established or not. Following SCHNEIDER and WAGEMANN (2006), I first run fsQCA algorithms with the remote factors identified in the Subsection 3.3.i. As a criterion for logical reduction I consider only those configurations having Y-consistency (the degree of membership in the outcome set) greater than N-consistency (the degree of membership in the negation of the

outcome set). In addition, I consider only those configurations that have at least 2 observations whereas the rest is treated as logical remainders. Table 8 presents the results. First-stage parsimonious solution includes two configurations: larger populations and low predictability of equalization transfers or large populations and high fiscal autonomy. Logical expression articulating the result could be formulated in the following fashion: $POP * eqtrans + POP * AUTONOMY \rightarrow CBO$. The former configuration is in line with the theoretical framework whereas the latter is not and requires additional elaboration. In this case higher fiscal autonomy could be interpreted as a higher economic activity and, as a result, larger amount of potential donors may be available in those municipalities that display this configuration. In any case, it is important to look at the second-stage solutions.

Complementing the proximate factors with one of the first-stage solutions and running truth-table and Quine-McCluskey algorithms I obtain the following logical expression: $eqtrans * CAPVC \rightarrow CBO$. It means that in order for a CBO to be established it is sufficient that the equalization transfers are not predictable and that the municipality has a high-capacity village council. Furthermore, running the second-stage model with another configuration from the first stage results in the following: $CAPVC * involve + POP * CAPVC \rightarrow CBO$. The CBO is likely to be established either in the municipalities with large populations and high capacity village councils or in those with low levels of participation and higher capacity village councils. It is evident that high-capacity local government may be one of the key conditions across the solutions, which parallels the results of the econometric regressions. On the other hand, low predictability of equalization transfers entering the configuration with high-capacity village council grants support to the hypothesis that fiscal constraints motivate local governments to exert more fundraising efforts and, thus, establish CBOs. In addition, low level of average involvement entering the configuration with high-capacity village council indicates that local government's decision to establish a CBO is probably little motivated by local social pressure.

In addition to examining configurations of sufficient conditions resulting in the binary outcome accounting for establishment of CBOs it is informative to use CBOs' capacity as an outcome parallel to the ordered Probit models in the previous subsection. Table 9 presents the respective results. Here I use the same reduction criteria as in the previous models. In the first stage I obtain the following results: $SUBSIDIES + POP * EQTRANS * AUTONOMY \rightarrow CAPCBO$. This means there are basically two pathways to the higher capacity CBOs: high predictability of capital subventions or a combination of large population, predictable equalization transfers and higher fiscal autonomy.

Table 8: fsQCA results for CBO existence

1st Stage Model with Remote Conditions: $TRUST * POP * EQTRANS * AUTONOMY * SUBSIDIES \rightarrow CBO$			
Parsimonious Solution	**Raw Coverage[41]**	**Unique Coverage[42]**	**Consistency[43]**
POP*eqtrans	0.365	0.134	0.576
POP*AUTONOMY	0.359	0.128	0.622
Solution coverage: 0.493			
Solution consistency: 0.575			
2nd Stage Model with Proximate Condition: $POP * eqtrans * CAPVC * INVOLVE * FUNDBUSINESS * FUNDPOP \rightarrow CBO$			
Parsimonious Solution	**Raw Coverage**	**Unique Coverage**	**Consistency**
eqtrans*CAPVC	0.448	0.448	0.700
Solution coverage: 0.448			
Solution consistency: 0.700			
2nd Stage Model with Proximate Condition: $POP * AUTONOMY * CAPVC * INVOLVE * FUNDBUSINESS * FUNDPOP \rightarrow CBO$			
Parsimonious Solution	**Raw Coverage**	**Unique Coverage**	**Consistency**
CAPVC*involve	0.462	0.038	0.735
POP*CAPVC	0.563	0.140	0.699
Solution coverage: 0.602			
Solution consistency: 0.701			

The latter configuration contradicts the hypothesis 3.5; however, unique coverage of this solution is very low meaning that there are very few empirical cases exhibiting these configurations. Whereas, more predictable capital subventions, as argued in the previous subsection, probably reflect local government's better skills in fundraising.

In the second stage the specification with the proximate conditions and the first resulting configuration from the previous stage produce the following expression: $autonomy * CAPVC \rightarrow CAPCBO$. This supports the Hypotheses 1 and 4 as lower fiscal autonomy (representing one of the proxies for fiscal constraints) in combination with higher capacity village council appear to bring about more developed CBOs. Furthermore, the solution of the second-stage model with

[41] Raw coverage refers to the notion of coverage presented in the Subsection 3.3.ii.

[42] Unique coverage reflects the importance of the obtained configuration of sufficient conditions with respect to the total coverage of all the obtained configurations. It is calculated by subtracting raw coverage from the solution's coverage, which is not a sum of the raw coverages due to sets' overlap.

[43] Here consistency reflects the consistency of a given configuration of the sufficient conditions. On the other hand, solution consistency measures the extent the whole solution is consistent with the outcome.

SUBSIDIES added to the proximate conditions is represented by the following expression: $SUBSIDIES * CAPVC \rightarrow CAPCBO$. Paralleling the results of the Probit and ordered Probit models, high-capacity village councils in combination with predictable capital subventions are likely to bring about establishment of higher capacity CBOs. As a result, fsQCA models also suggest that capital subventions should be viewed as a proxy of governmental fundraising effort and not as a metric of the degree of municipality's fiscal constraints.

Table 9: fsQCA results for the capacity of the CBOs

1st Stage Model with Remote Conditions: $TRUST * POP * EQTRANS * AUTONOMY * SUBSIDIES \rightarrow CAPCBO$			
Parsimonious Solution	**Raw Coverage**	**Unique Coverage**	**Consistency**
POP*EQTRANS*AUTONOMY	0.239	0.038	0.489
SUBSIDIES	0.442	0.241	0.575
Solution coverage: 0.480			
Solution consistency: 0.515			
2nd Stage Model with Proximate Condition: $POP * EQTRANS * AUTONOMY * CAPVC * INVOLVE * FUNDBUSINESS * FUNDPOP \rightarrow CAPCBO$			
Parsimonious Solution	**Raw Coverage**	**Unique Coverage**	**Consistency**
autonomy*CAPVC	0.443	0.443	0.590
Solution coverage: 0.443			
Solution consistency: 0.590			
2nd Stage Model with Proximate Condition: $SUBSIDIES * CAPVC * INVOLVE * FUNDBUSINESS * FUNDPOP \rightarrow CAPCBO$			
Parsimonious Solution	**Raw Coverage**	**Unique Coverage**	**Consistency**
SUBSIDIES*CAPVC	0.385	0.385	0.689
Solution coverage: 0.385			
Solution consistency: 0.689			

In sum, fsQCA estimations broadly parallel the results of the Probit and ordered Probit models. As in the previous subsection, I find empirical support for all the hypotheses with the exception of the Hypothesis 3.3 suggesting that social pressure within a community may motivate local government to establish a CBO. Thus, the evidence grants support to the model suggesting that CBOs could be considered extensions of local bureaucracies and are part of local governments' fiscal strategies.

(iv) Robustness and measurement issues

Although in comparison to similar studies the dataset that I use is relatively rich there are some issues I would like to address. First, because of the data collection challenges and costs the sample size is relatively small. This may bias the results of some of the estimated models. Specifically, according to BABYAK (2004) and BERGTOLD and MERRIL-FEATHERSTONE (2011) there may be a problem of overfitting

the models whose results in significant relationships in the sample although they may not exist in the population. I deal with this problem by, first, demonstrating specifications with different degrees of freedom: with and without regional controls along with different interaction terms. The variables of interest exhibit similar significant relationships across the specifications. And, second, I employ triangulation of methods. In particular, in addition to traditional econometric techniques I employ fsQCA, which is less sensitive to small sample problem issues (RAGIN, 2006). Obtaining empirical evidence with the help of two methods puts me in position to claim reliability of the results.

Second, given complex relationships between the explanatory and explained variables there is a possibility of a simultaneity problem between existence of CBOs and availability of private funding (*FUNDBUSINESS* and *FUNDPOP*). Private donors may change their behavior after establishment of a CBO in a given municipality. CBOs may more effectively solicit potential donors and, thus, encourage the donors to give. There are strong arguments suggesting that in the case of entrepreneurial funding the problem is less severe. This type of informal cooperation between the village council and local entrepreneurs has been around for a substantial period of time and is rooted in the Soviet past and the mental models of local inhabitants. Local entrepreneurs would often directly contribute towards local public goods bypassing the village council in those municipalities without established CBOs. Considering the fact that most of the CBOs were established 2-3 years before the interview, entrepreneurial funding is unlikely to be altered by the newly established institution. On the other hand, in the case of local population's proclivity to contribute monetarily *FUNDPOP* there is much more scope for individual preferences to change due to the establishment of a CBO. I account for potential endogeneity of both of the variables under consideration and run a Probit model with instrumental variables (IVs). It is always a challenge to find appropriate instruments in the related studies. The idea is to find a variable correlated with the potentially endogenous one but free of the disturbance term (WOOLDRIDGE, 2002). As an instrument I use the frequency of participation in the town hall meetings *TOWNHALL,* which, first, could be argued to proxy for individual activeness with respect to making regular monetary contributions. Second, the community may be able to exert social pressure on local entrepreneurs to give. In addition, a number of studies have identified relationships between cooperation (giving propensity of both donors could be seen as their cooperation outcome) and economic and ethnic diversity (e.g. BARDHAN et al., 2007; ALESINA and LAFERRARA, 2000; HABYARIMANA et al., 2007, etc.). Thus, I use Gini coefficients GINI (based on monthly income) and average municipality-wide attitudes towards individuals of different nationalities, cultures and religions ATTIT. Running two-step IV Probit estimations I obtain positive and significant coefficients of both *FUNDBUSINESS*

and *FUNDPOP*.[44] As a result, there are reasons to believe that local governments, as ultimate local decision-makers, react to the situation with private funding by adjusting their fundraising efforts and, thus, establishing and running a CBO. Summing up, even though I explicitly deal with it, endogeneity problems cannot be completely ruled out especially in public policy studies.

Third, the proxies used for financial constraints and availability of entrepreneurial funding are based on the perceptions of the mayors. In particular, they are created based on the respective questions utilizing Likert scale and not direct measures of local public finance figures. Thus, these perceptions may not represent the actual situation in the field. However, I am interested in the incentives that these perceptions generate and, thus, these variables may be even more relevant in the context when I focus on village council's incentives.

3.5 Conclusions

The purpose of this chapter is to examine and better understand the scope of establishment of the CBOs in rural Ukraine. Building theoretical and empirical links between the existence of CBOs and local governments' incentives helps us to better understand the challenges of participatory governance and CDD. First, I model local government's incentives to fundraise which inversely depend on the degree the municipality is fiscally constrained. I argue that CBOs may be established in order to facilitate local government's fundraising efforts. Because of legal restrictions village councils in Ukraine may have a motivation to establish CBOs as vehicles for a more effective fundraising. As a result, establishment of the CBOs could well be considered to be fundraising efforts of local bureaucracies. Second, using new data from a survey in Ukraine I examined whether rural CBOs are established as part of local governments' strategy to deal with fiscal constraints. I, first, use discrete choice models and, second, in order to back up and expand the results I employ a case-oriented method – fsQCA, which allows identifying configurations of sufficient conditions leading to higher fundraising efforts of local governments and, thus, establishment of the CBOs. With the help of triangulation of methods I believe I am in position to claim reliability of the results.

First, community members appear to be disengaged from local CBOs as the participation proxies are not correlated with the probability of CBO establishment. This contributes to the evidence that these organizations could be considered simply extensions of local bureaucracies and part of local governments' fundraising strategies. Second, and, most important, the findings suggest that local governments respond to fiscal constraints by increasing their fundraising efforts and establishing local CBOs. In particular, as mayors perceive

[44] Consult Appendix C.1 for estimation details.

equalization transfers as less predictable they turn their attention to fundraising from private sources with the help of local CBOs. On the other hand, private donors' willingness to give motivates municipalities to collect this funding via local CBOs.

However, it is important to point out that local government's capacity appears to play an important role in the fundraising success. Predictable capital subsidies were found among the sufficient conditions for CBO establishment in the fsQCA models. This may indicate that capital subsidies could be also considered a "fundraising output" as higher capacity village councils are likely to be successful not only with harnessing private funding but also the state funds (in the form of capital subsidies). Finally, I find some evidence that higher predictability of equalization transfers may crowd out availability of private funding within a municipality. Even though the estimations are suggestive further evidence is needed in order to support the claim that there is a crowding out effect between capital subventions and private funding within a municipality. If that is the case, local governments may invest their fundraising efforts in those avenues with higher marginal effectiveness of fundraising.

What are the implications of these results? First, I have demonstrated that local governments do react to fiscal constraints and adjust local governance structure by establishing CBOs in order to facilitate fundraising efforts. These actions could be seen as municipalities' attempts to broaden local fiscal decision-making powers within existing centralized intergovernmental framework. Even though fundraising with the help of local CBOs could be viable mechanism of obtaining extra-budgetary resources for local development, in the long-term perspective local governments should obtain more control over local budgetary revenues and expenditures. In particular, village councils should be able to make independent decisions about expenditures and to retain higher percentage of locally collected taxes. The latter would improve budgetary revenue-generating incentives (in other words, improve incentives to collect more local fees and taxes). In addition, village councils' better decision-making freedom over expenditure of local public funds would improve efficiency of public goods delivery. Moreover, the overall local governance system would get more efficient as there would be less scope for the village councils to invest substantial resources in costly (due to opportunity costs and substantial amounts of time needed to register and maintain the organization) fundraising tools like CBOs as opposed to the primary functions of local government. In other words, due to poor budgetary policies CBOs are used to pursue the goals that they were not initially designed for. These arguments open up a discussion about the need for administrative and budgetary reforms that should be broadly based on principles of fiscal devolution and administrative decentralization. These reforms need to

promote delegation of the decision-making powers to the municipalities in order to better align the incentives of the recipients and public goods providers in the sense of BESLEY and GHATAK (2003).

Another policy implication is related to participatory governance and CDD approaches in Ukraine. My results reveal a lack of community involvement in the process of establishment and maintenance of the CBOs. A number of development agencies promote participatory approaches to local governance and use CBOs as facilitators and vehicles for community mobilization. External interventions involving community-based approaches should ensure that there are clear mechanisms to involve community members in the organization's decision-making process. So far, the focus of the development efforts has been on institution-building. However, this study suggests that educational and awareness-raising activities are equally important to foster participation within a municipality. In addition, some development agencies (e.g. UNDP's CBA Program) have the practice of conditioning the grant funding for the CBOs on involvement of more partners and municipality inhabitants' monetary contribution. The latter may foster a feeling of ownership and responsibility between the community members and in the long-term improve participation.

CHAPTER 4: PARTICIPATION IN THE COMMUNITY COLLECTIVE ACTION

4.1 Introduction

Previous chapter has examined the role that community-based institutions may play in the local governance arrangements in Ukraine. I found evidence that rural CBOs largely represent fundraising platforms for local governments. This chapter turns to another important aspect of local governance – citizens' participation in local decision-making. Before estimating the effect of participation on the governance outcomes I, first, discuss potential factors affecting individual decision-making in a transitional context.

As it has been pointed out in the previous chapters, community-driven and participatory approaches have recently gained momentum in paradigms of local governance and development across the world. Governments and development agencies invest vast resources in engaging communities in issues ranging from local public goods provision (BJORKMAN and SVENSSON, 2009; CASEY et al., 2011; WONG, 2012) to common pool resources management (OSTROM, 1990; AGGARWAL, 2000; ADHIKARI and LOVETT, 2006b). The overarching challenge for all these efforts is increasing the rates of individual participation in the collective action, be it engagement as members in local CBO or participation in local town hall meetings. Understanding the underlying mechanisms of community members' involvement in the governance of local pubic goods delivery may lead to policies that substantially improve local governance and save millions in public funds. Thus, this chapter deals with questions of the following type. What are the effecttive policies ensuring that community members are sufficiently motivated to get engaged in local governance and that free-riding in local collective action is minimized? How should these policies be adjusted depending on the institutional and socio-economic context?

Theories of collective action date back to OLSON (1965) who argued that individual decision-making about participation is based on equating marginal benefit from the public goods and marginal cost of participation. This is the baseline model that represents a decision-making of a rational agent. Since then, numerous studies have attempted, first, to identify what factors alter the expected benefit in different contexts and, second, to understand what could bring additional utility from participation apart from direct economic benefit. In particular, significant attention has been paid to the role of altruism (SMITH et al., 1994),

social trust (SONDERSKOV, 2009), institutional framework (OSTROM et al., 1994), social information (ANDREONI, 2006; SHANG and CROSON, 2009), and transaction costs of collective action (RAY and BHATTACHARYA, 2011).

This chapter identifies the factors that shape participation in the context of Ukraine. There has been particularly little research focusing on collective action in transition context. Among the exceptions is THEESFELD (2004) who portrays a bleak outlook for collective action in Bulgarian water sector and PETRICK and GRAMZOW (2012) who argue that community organizations played an important role in local transitional processes in Poland. Inherent hierarchical administrative traditions and centralized approach to governance in general create an institutional framework where collective action may be shaped by forces different from other institutional contexts. Having a focus on Ukraine, this chapter tries to identify related factors that may be most salient in the transitional context and understand their role in individual decision-making with regard to participation in local collective action. In particular, I focus on the individual beliefs and perceptions that may alter rationality-based calculus of participation proposed by OLSON (1965). Among these factors I consider mental models, social trust and social information. As mental models are of a central interest of this chapter I argue that cognitive features of individual decision-making shaped by a long totalitarian history may play a central role in local collective action. DENZAU and NORTH (1994) suggest that shared mental models and values can substantially affect decision-making in political and economic domains. TABELLINI (2008) offers a mechanism of values transmission between the generations and argues that norms of cooperation are shaped by the historical background via the process of social learning. In the transition context ZWEYNERT (2004) identified negative sentiment against capitalism as prevailing mental model. Along these lines, Soviet regime with all the hierarchical and centralized governance structures may have shaped particular individual beliefs about how society works. These beliefs may well influence individual decisions to participation in local collective action.

On the other hand, a bulk of literature argues that cooperation in local public goods provision may be induced by social trust. In particular, CASEY et al. (2011) and ANDREONI and GEE (2011) argue that social trust may reduce the need for sanctioning mechanisms for non-cooperators. Despite abundant scholarly contributions on trust there is little evidence on what role it plays in the collective action in a community setting. This chapter aims to address this gap. Finally, information about the actions of others may affect individual participation (SHANG and CROSON, 2009). Common knowledge about the community's inclination to participate has the potential to shape the whole community-level participation outcome (CHWE, 2001). Thus, I want to better understand how

the beliefs about motivation of others to participate in different types of collective action affect individual decision-making.

These questions are addressed empirically utilizing a data from a rich residents survey conducted in Ukraine. One of the innovative contributions of this study is that I examine the effect of the above mentioned cognitive factors on different types of participation. To my knowledge there has not been any studies comparing the potential determinants of participation across its different types. I distinguish between the following types: general involvement in local affairs, participation in the town hall meetings, monetary contributions towards local public goods and volunteering within a community. The principal finding is that at least two cognitive factors of interest appear to play a central role in individual decision-making with regard to engagement in different forms of participation. First, the evidence indicates that mental models about the role of the government and communities shape individual beliefs about how local public goods should be provided and, thus, affect individual participation. Furthermore, higher levels of social trust appear to substantially improve the likelihood of participation in most of the types of collective action. Finally, the evidence about the role of the social information is rather weak and mixed.

The rest of the chapter I organized in the following fashion. Section 4.2 provides an overview of theoretical foundation of the collective action and institutional background of the study site. In Section 4.3 I describe the data and discuss the methods employed. Section 4.4 presents main empirical results, whereas Section 4.5 concludes and provides some discussion about implications.

4.2 Background and theory

Local development in many transition countries has been hindered by inefficient governance and incomplete reforms. Often ruling elites have tended to centralize budgetary funds (Litvack et al., 1998) which leaves local governments with very few resources to move local development forward. Many development agencies have adopted community-driven development (CDD) approaches in transitional contexts (World Bank, 1999). The idea is to empower local communities and authorities in order to create a setting favorable for decentralization processes (World Bank, 2008). There is a vast literature identifying the benefits of involving communities in the processes of local governance and development. They range from better efficiency of public goods delivery (Hoddinott et al., 2001) to better targeting of vulnerable parts of the communities (Galasso and Ravallion, 2005). However, there is an emerging bulk of literature discussing the pitfalls and drawbacks of CDD approach (Mansuri and Rao, 2004; Wong, 2012). One of the main challenges is to meaningfully engage the community members in local public policy process and development initiatives (Banerjee et al., 2010). One of the

mechanisms the development agencies aim to involve local community members is to establish local non-governmental platforms for citizens' engagement – CBOs. Even though, as discussed in Chapter 3, often in Ukrainian context CBOs could be seen as extensions of local bureaucracies the long-term goal of the donor agencies is to foster sustainable participation with the help of the CBOs (EU, 2006). Experts working on local development in Ukraine testify that participation rates among the community members have remained relatively low and often the reality is that in order to fulfill donors' requirements CBOs register people as members without them even knowing that. My data from Ukraine indicates that only 3.06 % of the respondents report being members of a CBO. Thus, in order to device sound policies promoting community engagement in the public policy it is necessary to understand individual decision-making process with this respect. Consequently, the task of this chapter is to better understand whether and how cognitive factors affect individual decision-making to get engaged in local collective action.

I refer to a collective action in the spirit of OLSON (1965) and OSTROM (2005), as a community-wide aggregation of individual decisions to take actions that maximize agents' short-term utility. In particular, individual will participate if a marginal benefit is higher or equal to marginal cost of participation. In medium- and high-N interactions the agent has the incentives to rationally free-ride and public goods will be provided under the optimal level. However, that is not the only problem on the way to sustainable community participation. Community members might face information asymmetries and conflicts of interests (OSTROM, 2005). Specificity of a public good delivery, which is the objective of the collective action, could also play a major role (ibid.). These problems have deserved substantial attention from the scholars and, thus, my focus is on a different mechanism of individual decision-making. There is an emerging literature dealing with social preferences and cognitive factors that alter the behavior of a rational agent (e.g. FEHR and FALK, 2002; ANDREONI, 1995; FEHR and SCHMIDT, 1999). I will examine some of them in more detail below and, in particular, relate to the transitional context.

OSTROM (2003) started the discussion about how collective action outcomes may depend on the types of public goods being considered. Surprisingly, the discussion has not been extended to look at how different types of engagement could be determined by different factors. To my knowledge, no studies have examined determinants of collective action comparing its different types. Addressing this gap I single out three categories of collective action: general involvement in local affairs, monetary contributions towards local public goods, and volunteering for a community cause. I will examine how the effect of the specific cognitive factors differs with the variation of the collective action type.

So, what are these cognitive factors that could have a specific effect in a transitional setting? I now proceed discussing each factor separately: mental models, social information and social trust. I lay out a simple theoretical framework for each of them.

(i) Mental models

Understanding of economic decision-making has been revolutionized by the departures from rational budget-maximizing behavior. CHARNESS and RABIN (2002) have put the focus on "social preferences" in coordination games. In particular, cooperation may be induced by altruistic preferences (SMITH et al., 1994), fairness and inequality aversion (FEHR and SCHMIDT, 1999), and reciprocity (BERG et al., 1995). On the other hand, there is an emerging research area studying individual beliefs, ideas, ideologies, and related cognitive processes. As opposed to approaches involving limited information, this research strand deals with cognitive limitations of the decision-makers. In particular, mental models about the state of the world may significantly affect human behavior. The concept was pioneered by SCHELLING (1960) who argued that coordination in conflict resolution could be achieved with the help of a "focal point" – some salient features of commonly shared beliefs about the reality. Along these lines, common perception of the surrounding world shared by a group of individuals may play a substantial role in determining cooperation. DENZAU and NORTH (1994) argue: "The performance of economies is a consequence of the incentive structures put into place; that is, the institutional framework of the polity and economy. These are in turn a function of the shared mental models and ideologies of the actors." Formal and informal institutions may be shaped by the beliefs dominating in a society or a community about how they should be arranged and maintained. Furthermore, RICHARDS (2001) demonstrates via a theoretical exposition that common interpretation of reality may induce cooperative equilibrium outcomes. In other words, collective action can be sustained if agents have common ideas about participation.

Mental models may be induced by two sets of factors. First, people's beliefs could be path-dependent and be rooted in historical background that shaped institutional framework within the society. ZWEYNERT (2004) argues that failure of Russian economic development was due to prevailing misleading mental models about capitalism among the population including the leaders. Thus, some drastic changes in the society may form beliefs (possibly misleading) about certain aspects of public policy or community life. Second, media may have a substantial influence on how agents perceive information about the world. There are a number of studies that find correlation between proximity of media outlets and voting behavior (GEBER et al., 2007; DELLAVIGNA and KAPLAN, 2006). Considering infrastructural challenges many rural areas in transition countries may

be facing, also access to information may be limited for local populations which in turn may reinforce existing mental models.

Going back to the community context in transition countries, it might well be the case that individuals hold certain mental models related to the Soviet era. For instance, ZWEYNERT (2004) argues that there was an anti-capitalism sentiment among Russian population in the 90s that may have prevented faster and steadier economic advance. On the other hand, development experts in Ukraine refer to "consumerist mentality" when describing communities' attitudes towards provision and maintenance of local public infrastructure. Long Soviet tradition of top-down approach to provision of local public goods (where the state played a key role) may have shaped a belief that the government is the one ultimately responsible for public goods and services. As a result, community members may have an unrealistic expectation (at least for the current situation with the public finance) that the government should take care of all the public goods provision. These beliefs most certainly could be summaryzed by the following phrase: "Government is the ultimate provider of public goods whereas communities don't matter". Having these beliefs may lead to reduced participation rates among the communities where these mental models are more persistent. Local development experts have even coined a term "consumerist mentality" to address this phenomenon. Interviewed practitioners from the development field indicate that local communities have strong beliefs that public goods like water supply, streets maintenance, waste collection, gasification, etc. has to be taken care of by governmental agencies. As a result, these beliefs may impede the community members to self-organize and cooperate on self-provision. The degree to which "consumerist mentality" model is persistent among the individuals may depend on community's exposure to different media outlets and mental models of local leaders (e.g. mayors, local medium farmers, etc.). Community size and population density may play a significant role in mental models' persistence as it determines the frequency and nature of agents' interactions along with different degrees of access to the media outlets.

(ii) Social trust

Communities where individuals are more trusting each other have an advantage in collective action as trust reduces the need for sanctioning non-cooperative behavior (FRANCOIS and ZABOJNIK, 2005). In other words, it mitigates the need for punishment of those who deviate from cooperative behavior and, as any punishment mechanisms are costly (ANDREONI and Gee, 2011), it reduces transaction costs of enforcement of the collective action (LABONNE and CHASE, 2010). It has been argued that social trust improves economic activity (KNACK and KEEFER, 1997) and governance (LA PORTA et al., 1997), reduces corruption (USLANER, 1999), and life satisfaction (HELLIWELL, 2003). Despite the progress in this field

there is no uniform definition of social trust as it varies across the studies. I define it as a combination of two components: individual trustworthiness (SELIGMAN, 1998; MEIER, 2006) and an expectation of a trustworthy behavior from others (WILLIAMSON, 1993).

Societies in transition countries are generally characterized by very low social trust (HUMPHREY and SCHMITZ, 2007; BJORNSKOV, 2007). The reasons for this are most probably related to structural changes that these countries experienced. The period after the collapse of the Soviet Union is connected to rather chaotic institutional transformations and reforms, which created substantial turbulence in population's well-being. The level of social trust might have sizably reduced during the 90s due to bad institutions in transition. Along these lines, PALDAM and SVENDSEN (2001) suggested a theory that totalitarian regime in the Soviet Union destroyed social capital and replaced it with dysfunctional institutions. Moreover, based on OLSON'S (1965) hypotheses, informal connections between powerful individuals during the transition period may have exacerbated the problem of low trust.

In the Ukrainian context, development experts point out significant difficulties in CDD projects implementation due to low levels of social trust. There is surprisingly little evidence on how social trust is related to participation in local collective action. To my knowledge, there are no studies that have attempted to examine this relationship in the transitional context. I expect that the variation in the levels of social trust across the communities and respective perceptions of the individuals may play a significant role in the success of local collective action. As in the case with mental models, community size may play an important role in facilitating the effect of the social trust. In smaller communities individuals may have closer relationships among each other whereas as the population size and density increase a social distance between the community members increases too. Thus, the effect of social trust may be larger in smaller communities.

(iii) Social information

In a community setting it may be the case that individuals will cooperate if they expect others to do so too. This argument is based on the reciprocity principle developed by BERG et al. (1995). Accordingly, community members will be less interested in participation in the collective action if they expect fewer people to get engaged. Along these lines, SUGDEN (1984) argued that individuals will make charitable contribution that is at least as high as the lowest contribution in the community. So, when the agents face imperfect information they form beliefs about the actions of others. As a result, these beliefs or social information may affect individual decisions to participate in local collective action. Furthermore, CHWE (2001) argues that social knowledge is formed by knowing what

other people know. He argues that this knowledge may lock communities in cooperative or non-cooperative equilibriums. For instance, if local leaders know mayor's negative sentiment towards collecting funds among the residents for water system reparation they may choose a negative stance on this issue too (e.g. in order not to confront the mayor). The rest of the community members may anticipate that and it may reduce their willingness to get engaged.

This effect may, however, vary depending on the setting and the nature of public good being at stake. ANDREONI (1998) argues that if sunk costs are involved in delivery of a certain public good (e.g. water supply system) then there might be situations when higher expectations about the contributions of others crowd out individual contributions. In other words, community members expect sufficient number of individuals to contribute in order to reach the cut-off amount (or sunk costs) that allows provision of a public good. As it was the case with the previous cognitive factors, in these situations the size of a community may play an important role as in the larger-N interactions monitoring becomes more costly and, thus, it may be rational for an individual to free-ride if she believes that with the contributions of others one may cover the sunk costs of a public good.

In the transition context, where non-participation may still be a norm among local communities, social information about participation of others has the potential to improve engagement rates. In fact, development experts in Ukraine testify that "success stories" about other communities help implement CDD initiatives in other communities. On the other hand, salient leadership of local collective action within the community may indirectly induce others to participate. Furthermore, beliefs about other community members' proclivity to participate may induce cooperation in one-shot games. In particular, in the situations when a community aims to collect enough contributions to finance fixed costs of a given public good individual expectations about others' contributions should be high enough in order to induce action. There may be a cut-off value of agents' expectations above which they will be more inclined to contribute. If the expectations are below that cut-off value agent's proclivity to participate may be lower, too. However, social information may also have an effect in the contexts of other types of participation like attending town hall meetings (when expectation of others' attendance affects individual decisions) or volunteering.

4.3 Data and empirical strategy

(i) Data

The data is drawn from a resident survey conducted in rural areas of Ukraine in early 2012. A detailed description of the sampling procedures and the data

could be found in Chapter 2. Here I will only briefly outline major properties of the data used in this chapter. A random sample of municipalities was drawn from two NUTS2 regions in order to control for structural economic and demographic differences in Western and Eastern parts of the country. Only rural municipalities were considered in the sampling frame as the focus of the whole study is on rural areas. Then, within each municipality a sample of 8 to 17 residents was drawn. The size of the sample was proportional to the population of the municipality. Due to difficulties with obtaining official residents registries in Ukraine and due to their unreliability a systematic sampling approach based on a random walk was employed. In order to select interviewees the villages within the municipalities were allocated sampling quotas and then within each village using satellite maps I identified a random starting point. Afterwards we followed an incremental random walk approach in order to identify the rest of the reference locations for interviewee selection. As was argued in Chapter 2, BENNETT et al. (1994) find that similar sampling method used for immunization program evaluation is almost as efficient as simple random sampling. This sampling approach also ensured geographical dispersion of the respondents as a substantial part of the questions deals with issues of public goods provision that may be location-sensitive. Next, the residents were stratified by sex, employment status and age. In sum, I tried to ensure representativeness of the sample to the extent it was possible within existing constraints.

The questions used for this chapter are related to different aspects of general involvement in the community life, volunteering, monetary contributions (Section BIII of the residents' questionnaire), and obviously personal information (Section BVI of the residents' questionnaire).[45] Most of the times, the questions are designed as statements with several options reflecting different degrees to which the respondents agree with the statement (Likert scale). Parallel to the residents' survey we carried out interviews with mayors of respective municipalities. Some control variables are drawn from that data. And, finally, I use secondary data from Ukrainian official statistics agencies for some of the controls.

(ii) Empirical strategy

The main task of this chapter is to understand how cognitive factors affect individual decision-making with regard to participation in different types of collective action. In order to address this challenge I estimate the following general model:

$$Particip_i = \beta_{0i} + \beta_{1i} Mental_i + \beta_{2i} SocInfo_i + \beta_{3i} Trust_i + \beta_{4i} Controls_i + \varepsilon_i$$

[45] You can find the questionnaire for residents in the Appendix E.

where the dependent variable is $Particip_i$ – a vector of different types of participation in local collective action. In particular, I start with a benchmark case of general involvement in local affairs and continue with participation in the town hall meetings[46], monetary contributions and volunteering for community causes. This way it will be possible to see the differences of the effects of social trust, mental models and social information in different contexts of participation.

With the help of the following vectors I will test the hypotheses: $Mental_i$, $SocInfo_i$, and $Trust_i$ – proxies for individual mental models, social information, and trust respectively. Finally, $Controls_i$ is a vector of controls for demographic characteristics and other residents' important features. Among them, it is first necessary to point out the vector of variables measuring the cost of participation – the size of a burden for the residents generated by taking part in the collective action. Obviously, income is the key variable here. However, variables like amount of children in the household and dummies for main income in the household and self-employment status may reflect the potential costs of engagement for the respondent. Furthermore, it is necessary to control for the municipality's situation with public finance. In particular, community members may react to availability of resources to the local government by adjusting their engagement levels. For instance, in municipalities that obtain more capital subsidies for school maintenance community members may be less willing to volunteer their efforts with renovations in comparison to those municipalities that receive fewer subsidies. This behavior could parallel donors reducing their financial contributions to a charity as it gets more successful with obtaining state funding (BERGSTROM et al., 1986).[47] Thus, I include variables reflecting availability of state funding designated for capital investments and the level of local entrepreneurs' social responsibility. Finally, I include municipality dummies in order to control for regional unobservable effects as there may be unobserved municipality-level peculiarities with regard to the way individuals get engaged in local collective action.

Inherent problem persistent in the studies examining cognitive factors is the endogneity issue. In particular, there may be a circular causation between some types of participation and social trust. Higher individual engagement is associated with more interactions between the individuals and, as a result, social trust within a community could be enhanced over time. However, considering a large

[46] These are general meetings of the community members that are facilitated by local village councils. In principle, the meetings are rather informal and open to the public. The tradition goes back to the Soviet time.

[47] This represents a well-researched "crowding-out" effect between charities' state and private funding. However, here I make an analogy with local governments instead of charities.

chunk of literature arguing in favor of the direction of causation outlined above I posit that social trust is a necessary condition for higher participation.

The problem in this context arises since in normal OLS models social trust will be correlated with the error term. In order to illustrate this consider the following general specification:

$$y_i = \beta_{0i} + \beta_{1i}x_i + \varepsilon_i \text{ with } Cov(x_i, \varepsilon_i) \neq 0$$

As a result, the coefficients will be biased. In order to control for the potential endogeneity problem I employ a 2 Stage Least Squares (2SLS) technique with instrumental variables (IVs). The logic of the method is to find an IV z_i that would be strongly correlated with the potentially endogenous variable (in my case – social trust) and independent of the error term:

$$Cov(z_i, \varepsilon_i) = 0 \text{ and } Cov(x_i, z_i) \neq 0$$

This is also known as an exclusion restriction (WOOLDRIDGE, 2002). Then, in order to obtain first-stage estimation (fitted values of the social trust) one needs to regress the potentially endogenous variable on the instrument and all the rest exogenous variables using OLS. In the demonstrative case of a simple regression model we estimate:

$$x_i = \pi_0 + \pi_1 z_i + u_i$$

The instrument z_i should be good enough or sufficiently correlated with the x_i in the sense that $\pi_1 = Cov(x_i, z_i)/Var(z_i) \neq 0$. In the second stage using $\beta_{1i} = Cov(z_i, y_i)/Cov(z_i, x_i)$, we can get an IV estimator of β_{1i} and β_{0i}:

$$\widehat{\beta_{1i}} = \sum_{i=1}^{n}(z_i - \bar{z})(y_i - \bar{y}) \Big/ \sum_{i=1}^{n}(z_i - \bar{z})(x_i - \bar{x}) \text{ and } \widehat{\beta_{0i}} = \bar{y} - \widehat{\beta_{1i}}\bar{x}$$

The statistical software regresses the dependent variable on all the exogenous variables and the fitted values for the potentially endogenous variable also using OLS. As a result, in principle it should be possible to obtain consistent unbiased estimator of the endogenous regressor.

There are, however, some reservations that one needs to pay attention to. First, it may naturally be of interest to test for endogeneity as 2SLS estimation introduces a loss of efficiency due to larger standard errors in comparison with OLS estimation (WOOLDRIDGE, 2002). Consequently, if the results of the test reveal no endogeneity problem, than it makes more sense to use OLS estimates as the coefficient will have smaller standard errors. In order to do that I use Durbin and Wu-Hausman tests. The logic of these tests is to compare simple OLS estimates with the estimates obtained using 2SLS procedure and see whether the difference is statistically significant (BAUM et al., 2003; 2007). Another major reservation that should be pointed out is concerned with the strength of the instruments.

STOCK et al. (2002) utilizing experimental research suggest that joint significance of the coefficients of the first-stage regression should have a minimum F-statistic of 10. Otherwise, the coefficients will be biased towards the OLS estimates as the chosen instrument is weak. I will return to this issue in the sub-section dealing with the results.

Furthermore, as I work with binary dependent variables (*1MONCONT*, *MONCONT* and *VOLUNT1*), I employ Probit models and their versions controlling for endogeneity – Probit with instrumental variables. The main idea of the Probit model was introduced in the previous chapter. The logic of estimation of the Probit model with instrumental variables is very similar to 2SLS estimation. In most of the cases statistical software estimates IV Probit using maximum likelihood (ML) techniques. As in the case of 2SLS estimation procedure, there is an opportunity to run a test for endogeneity.

Finally, *VOLUNT2* is a count variable and, thus, it would make sense to use a model based on a Poisson distribution. However, my dataset has a substantial amount of zero observations (240) meaning that 43.88 % of respondents did not volunteer in 2011. In order to control for that I employ a version of the Poisson regression – Zero Inflated Poisson (ZIP) model.

The idea here is to break down the decision-making process in two steps. First, the agent decides on whether to volunteer or not and this decision is modeled with the help of a regular Probit regression. In the second stage the decision is about the amount of times to volunteer and this is governed by the Poisson distribution since here we deal more with the distribution that is closer to the count variable. Let me briefly illustrate the logic of the Poisson regression model. Following WOOLDRIDGE (2002) and assuming for brevity that $E(y|x_1, x_2, \dots, x_k) = exp(\beta_0 + \beta_1 x_1 + \cdots + \beta_k x_k) = exp(x\beta)$, the probability that y equals a count value *h,* conditional on x, looks as following:

$$P(y = h|x) = exp[-exp(x\beta)][exp(x\beta)]^h/h!, \quad h = 0,1, \dots.$$

This formulation allows us for any given values of the regressors to find conditional probabilities. Having at hand a random sample $\{(x_i, y_i): i = 1,2, \dots, n\}$, a log-likelihood function can be constructed in the following fashion:

$$L(\beta) = \sum_{i=1}^{n} [x_i y_i \beta - exp(x_i \beta)]$$

There is also a so called Vuong test available in order to test for appropriateness of using ZIP model (GREENE, 2012). This statistic follows a normal distribution where larger positive values indicate that ZIP should be utilized whereas negative – simple Poisson regression.

As I have both a binary variable reflecting whether an individual volunteered in 2011 (*VOLUNT1*) and a separate count variable (*VOLUNT2*) it will provide a good platform to see how robust the results are. Ideally, all the zeroes in the former should correspond with the zeroes in the latter but possibly due to measurement errors the correlation coefficient is only 0.46.

(iii) Variables

Table 10 presents the descriptive statistics. I use six dependent variables that represent different types of participation in local collective action. First, *GENINV* is used as a benchmark case as it measures self-reported general involvement in the affairs within the municipality. Next, we use a variable *TOWNHALL* reflecting the frequency of respondent's participation in the town hall meetings. These are the meetings organized by local village councils as a rule open for all the community members in order to discuss current issues of the municipality. The variable is constructed using a 1 to 5 Likert scale reflecting different frequencies of participation.[48] Another group of variables, *1MONCONT* and *MONCONT*, accounts for two types of respondents' monetary contributions towards local public goods. The former is a binary variable reflecting whether a respondent had made one-time contributions in order to cover sunk costs of a certain public good (e.g. construction of water or natural gas supply system, etc.). Whereas, the latter is also a binary variable measuring whether a respondent had been making regular monetary contributions. Both of the variables are important to look at as one of the key challenges in CDD is making participatory efforts sustainable (WORLD BANK, 2005a). There is arguably a potential that some of local public goods (water supply, waste collection, etc.) could be maintained with the help of a stream of regular monetary contributions from the community members. Looking at the descriptive statistics it is worth pointing out that the mean of one-time contributions is significantly lower (t-test's p-value is .000) than regular contributions. Due to low average incomes and distrust towards the leaders collecting the funds there may be a larger negative sentiment towards regular contributions. Finally, I also look at proxies for individual volunteering efforts: *VOLUNT1* and *VOLUNT2*. The former is a binary variable reflecting whether a respondent had engaged in voluntary activities within a municipality. The latter is a number of times volunteered in 2011. The level of volunteering is relatively high as on average respondents reported having volunteered roughly 2 times in that year.

Among the independent variables I, first, look at our proxies of mental models: *COMROLE* and *GOVROLE*. Both of them are constructed using a Likert scale and the former reflects the degree to which an individual agrees with the statement:

[48] Corresponds to the question RV8.B of residents' questionnaire.

"Involvement of each citizen in solving community's problems helps local development". Whereas, the latter is based on the statement: "Providing well-being in the community is the task of only the government".[49] Here I assume that these proxies reflect individual beliefs about how active and self-reliant the communities should be and how far government's responsibilities go with respect to local public goods provision. I expect *COMROLE* to be positively associated with the likelihood or intensity of participation whereas *GOVROLE* – negatively. Secondly, I use different variables measuring social trust. *TRUST1* reflects generalized social trust towards others and is based on a 1 to 10 Likert scale. On the other hand, *TRUST2* is a more concrete measure tied to a hypothetical situation that was presented to the respondents during the interviews. This is respondent's trust towards community leaders collecting funds for a given local public good. It is expected that both proxies are positively associated with all types of participation. However, TRUST2 should be more relevant for monetary contributions. Furthermore, I examine how trust towards the village council (*TRUSTVC*) may influence participation. On the one hand, there may be some types of participation facilitated by higher levels of trust towards local government (e.g. participation in the town hall meetings). On the other hand, distrust towards the village council may result in an adversarial relationship[50] with local government, i.e. when local community engages in activities substituting local government's efforts of public goods provision. In particular, distrust towards the village council may be associated with higher proclivity to contribute monetarily or in-kind. In other words, community members may be more willing to contribute to local formal or informal organizations because they trust them more than the local government.

In order to examine how social information influences individual decisions to participate I use four variables for respondents' expectations about the following: community members' motivation to make a one-time monetary (*EXP1FINCONT*), regular monetary (*EXPREGFINCONT*), in-kind contribution (*EXPVOLUNT*), and to come to the town hall meetings with all the community members (*EXPMEETINGS*). According to the theoretical framework outlines in Subsection 4.2 I hypothesize that all these proxies for individual expectation of participation of others are positively related to participation rates with probably one exception: monetary contributions. In this case the relationship can be more complicated as the theory is not explicit about how individuals will react to social information determining their monetary contributions. If free-riding incentives prevail, the relationship will be negative (ANDREONI, 1998).

[49] Corresponds to the questions RV19.a and RV19.b of the residents' questionnaire.

[50] For an overview of relationships between the nongovernmental organizations and the government, please, see YOUNG (2000) who classified three types of relationships: complementary, adversarial, and supplementary.

Furthermore, individuals may base their decision-making not only on the behavior of others but also on the level of engagement of private enterprises and the higher tiers of the government. In other words, community members may adjust their participation depending on how private enterprises have helped monetarily with local development during the last two years (*FUNDBUSINESS*) and depending on predictability of capital subsidies[51] (*SUBSIDIES*). This data was drawn from the mayors' survey, which was carried out parallel to the residents' interviews. Following the line of argument of the "crowding out" literature (e.g. BERGSTROM et al., 1986)[52] I expect a negative relationship between predictability of capital subsidies and participation. However, the literature is not conclusive with regard to the individual reactions to the changes in degrees of social responsibility of local business. On the one hand, involved entrepreneurs may stimulate community members to get engaged. In contrast, in the context of monetary contributions higher levels of funding availability from the local business may generate incentives for the inhabitants to free-ride on entrepreneurial efforts.

Table 10: Descriptive statistics (n=588)

Variable	Description	Mean	Std. Dev.	Min.	Max.
Dependent variables					
TOWNHALL	Frequency of respondent's participation in the municipality's town hall meetings (1 to 5 Likert scale)	2.484	1.451	1	5
GENINV	Self-declared level of involvement in municipality's affairs (1 to 10 Likert scale)	4.259	2.774	1	10
1MONCONT	Binary variable accounting for whether respondent had made a 1-time financial contribution within a municipality (1-yes; 0-no)	.647	.478		
MONCONT	Binary variable accounting for whether respondent had made regular financial contributions within a municipality (1-yes; 0-no)	.221	.415		
VOLUNT1	Binary variable accounting for whether respondent had made an in-kind contribution within a municipality (1-yes; 0-no)	.454	.498		
VOLUNT2	Amount of times respondent volunteered for a community cause in 2011	1.947	3.813	0	60
Independent variables					
COMROLE	Proxy for a mental model about the role of the communities (1 to 5 Likert scale)	4.394	.918	1	5
GOVROLE	Proxy for a mental model about the role of the government (1 to 5 Likert scale)	2.156	1.192	1	5

[51] These are application-based transfers from higher tiers of the government targeting local capital investment needs. More details are provided in Chapter 1.

[52] Here I refer to the literature exploring crowding out effect between private and governmental funding sources of charities. More detailed discussion is provided in Chapter 3.

TRUST1	Proxy for generalized social trust (1 to 10 Likert scale)	6.915	3.105	1	10
TRUST2	Alternative proxy for social trust (1 to 10 Likert scale)	7.290	3.171	1	10
TRUSTVC	Proxy for respondent's trust towards the village council (1 to 5 Likert scale)	3.229	.844	1	5
EXP1MONCONT	Individual perception of how difficult it is to mobilize the community for 1-time financial contribution (1 to 5 Likert scale)	3.161	1.147	1	5
EXPMONCONT	Individual perception of how difficult it is to mobilize the community for regular financial contribution (1 to 5 Likert scale)	2.246	1.032	1	5
EXPVOLUNT	Individual perception of how difficult it is to mobilize the community for volunteering (1 to 5 Likert scale)	3.035	1.146	1	5
EXPMEETINGS	Individual perception of how difficult it is to mobilize the community for regular town hall meetings (1 to 5 Likert scale)	3.097	1.071	1	5
ORGMEM	Dummy for a membership in a CBO	.031	.172		
STRCOMMEM	Dummy for a membership in a street committee	.036	.186		
SEX	Dummy for respondent's sex	.537	.499		
AGE	Respondent's age	49.512	16.000	18	86
EDUCATION	Index for respondent's education (1 to 6 scale)	2.818	1.329	1	6
INCOME	Respondent's income in UAH	2159.434	1284.863	70 0	70 00
ASSESTS	Index for acquired assets in respondent's household	2.57	1.41	0	6
SUBSIDIES	Predictability of subsidies for the next fiscal year (1to 4 Likert scale)	1.792	.865	1	4
FUNDBUSINESS	The degree to which local business has contributed financially to local development during last two years	2.476	1.070	1	4
CHILDREN	Amount of children, grand- or grand-grand-children living in the respondent's household	1.187	1.438	0	9
MAININC	Dummy for the main income contributor in the household	.347	.476		
SELFEMP	Dummy for self-employment	.034	.182		
POLPARTY	Dummy for political party membership	.058	.234		
VILPOP	Average village population within the municipality	655	429	12 5	20 32

Finally, I examine the costs of agent's participation: respondent's income (*INCOME*) and index for acquired assets (*ASSETS*),[53] number of children in the household (*CHILDREN*) along with dummies for self-employment (*SELFEMP*) and for main income in the household (*MAININC*). Furthermore, as argued in the Subsection 4.2, size of the community may influence participation and the way individuals treat social information. Thus, I also control for the average village

[53] Constructed as a sum of maximum amount of 6 basic assets outline in question RV50.6 of the residents' survey.

size within the municipality where respondent was interviewed (*VILPOP*). Among the rest of the independent variables I include controls for demographic characteristics and regional effects.

4.4 Results

I would like to, first, point out the descriptive statistics in Table 10. It appears that involvement in the communities' affairs is rather low. Furthermore, the mean of the responses about the frequency of participation in the town hall meetings lays between the categories "Sometimes" and "Nearly Never". Also, as expected, I find the difference between the propensities to make regular and one-time monetary contributions (t-test's p-value is .000). Thus, 64.29 % of the respondents had provided a one-time monetary contribution towards some concrete need in local public goods. Whereas, only 21.94 % had maintained giving on a regular basis for operation or maintenance. Individuals seem to be very suspicious and concerned about how the money may be handled if some amount is accumulated. Finally, roughly half of the respondents reports having had volunteered for a community cause and it appears that on average residents provided their volunteering efforts roughly 2 times during 2011 (with just under 4 times among those who made a decision to volunteer at least once).

Looking at the proxies for mental models it is, first, worth pointing out that average responses to the statement that government is the only one responsible for providing community welfare was between "somewhat disagree" and "neutral". This indicates that individuals predominantly view the government "via a Soviet prism" and allocate a substantial weight in local development. On the other hand, looking at the mean of the alternative proxy for mental models we see that respondents accept active role of the communities in local development to a greater degree. Finally, I stop the reader's attention on the proxies for social information as the mean for expectation of others contributing on a regular basis, just like in the case of the dependent variables, is significantly smaller than the mean for expectation of making a one-time contribution.

(i) General involvement and participation in the town hall meetings

Table 11 presents the results of the OLS regressions with the baseline case of the self-declared level of involvement in local affairs *GENINV* along with the participation in the town hall meetings *GENMEETINGS*. The former is a rather general measure of participation that may encompass some more specific aspects (including the ones we will be looking at below). Precisely because of its generality and encompassing nature I use it as a benchmark case. The latter, as discussed in the previous subsections, focuses on the collective action facilitated by the village council.

First, it is worth pointing out that in the benchmark case the variables of our interest – social trust, beliefs about the role of the community and actions of others – are positively significantly associated with the level of involvement. In particular, the effect of mental models is especially large and highly significant. The more individuals believe that each citizen can make an impact on local development the more they get engaged. Alternative proxy for mental models has an expected sign; however, it is not significant at the conventional levels. Interestingly, trust towards the village council has also the positive and signifycant coefficient. Thus, general involvement is complementary to the village council's activity. Finally it is informative to examine other significant controls. More educated individuals are more likely to be involved in local affairs. Also, involvement is positively associated with membership in a political party. Surprisingly, insignificant coefficients of the proxies for costs of participation do not grant any evidence along the lines of OLSON'S (1965) classical hypothesis.

Now, controlling for potential endogeneity of social trust I run 2SLS estimation with respondents' age as an instrument. A number of studies find age to be positively related with the social trust (e.g. GLAESER et al., 2000 and ALESINA and LAFERARRA, 2000). On the other hand, there are no reasons to believe that age is correlated with general involvement. Turning to the results, it is evident that all of the significant relationships observed in OLS are preserved. What about the strength of the chosen instrument? The F-statistic is 8.926, which is close to the recommended 10 by STOCK et al. (2002). In general, it is necessary to point out that it is rather challenging to find an appropriate instrument and having this high F-statistic could be considered a success.

The benchmark case provides empirical support to my main hypotheses. Let us now examine a more concrete type of engagement – participation in the town hall meetings. Even though the coefficients are of an expected sign, contrary to our hypotheses, most of the cognitive factors do not exert significant effects on the frequency of participation. The exception is the mental models as I find a significant positive effect both in OLS and 2SLS estimation. Moreover, in the IV estimation social trust becomes significant. This grants support to two of my hypotheses including mental models and social trust.

Looking at the insignificant Wu-Hausman statistic and Durbin score it is evident that it is preferable to use OLS estimation as there is evidence about the absence of the endogeneity problem and the OLS estimations are more efficient. On the contrary, the same endogeneity tests indicate that in the estimation with *TOWNHALL* as a dependent variable social trust is indeed simultaneously determined with the frequency of participation. Consequently, the coefficients of 2SLS estimations should be less biased in comparison to OLS estimations.

Table 11: Regression results for involvement in local affairs

Independent variable	Dep. var.: GENINV			Dep. var.: GENMEETINGS, OLS		
	OLS	1st Stage	IV	OLS	1st Stage	IV
EXPMEETINGS	0.226**	0.331**	0.317**	0.086	0.370***	-0.028
	(0.115)	(0.129)	(0.144)	(0.062)	(0.136)	(0.098)
COMROLE	0.397***	-0.113	0.373***	0.122*	-0.111	0.149*
	(0.138)	(0.154)	(0.136)	(0.073)	(0.159)	(0.085)
TRUST1	0.065		-0.236	0.015		0.337*
	(0.040)		(0.293)	(0.021)		(0.189)
TRUSTVC	0.287*	0.725***	0.518*	0.127*	0.743***	-0.125
	(0.148)	(0.168)	(0.268)	(0.073)	(0.172)	(0.174)
SUBSIDIES	-0.749	-2.691*	-1.785	0.125	-2.617*	-0.526
	(1.249)	(1.560)	(1.595)	(0.450)	(1.585)	(0.983)
FUNDBUSINESS	0.311	3.161**	0.636	0.049	3.055*	0.610
	(2.277)	(1.623)	(1.677)	(0.267)	(1.661)	(1.036)
INCOME	-0.028	0.171	0.015	-0.009	0.175	-0.057
	(0.096)	(0.111)	(0.105)	(0.052)	(0.114)	(0.066)
ASSETS	0.137	0.126	0.182*	0.011	0.120	-0.035
	(0.088)	(0.099)	(0.097)	(0.047)	(0.102)	(0.060)
CHILDREN	0.078	0.115	0.111	-0.003	0.105	-0.034
	(0.093)	(0.097)	(0.090)	(0.047)	(0.099)	(0.055)
MAININC	0.021	-0.248	0.004	-0.013	-0.245	0.001
	(0.253)	(0.299)	(0.255)	(0.143)	(0.308)	(0.158)
SELFEMP	0.072	0.010	0.054	0.091	-0.006	0.146
	(0.514)	(0.727)	(0.634)	(0.337)	(0.752)	(0.397)
VILPOP	-0.684	0.505	-0.578	1.067	0.165	1.101
	(3.172)	(2.429)	(2.125)	(1.189)	(2.664)	(1.405)
POLPARTY	1.899***	0.535	2.054***	0.544*	0.558	0.370
	(0.653)	(0.601)	(0.547)	(0.311)	(0.609)	(0.337)
SEX	-0.354	-0.038	-0.364	0.078	-0.058	0.090
	(0.239)	(0.267)	(0.233)	(0.131)	(0.276)	(0.146)
EDUCATION	0.296***	-0.170	0.219*	0.112**	-0.167	0.192**
	(0.103)	(0.111)	(0.120)	(0.056)	(0.113)	(0.074)
AGE		0.026***			0.025***	
		(0.009)			(0.009)	
Constant	0.741	-2.116	2.812	-0.256	-1.909	-1.695
	(5.280)	(4.255)	(3.681)	(1.129)	(4.415)	(2.301)
Wald test: p-value	0.000	0.000	0.000		0.000	0.000
N		537			514	
R^2	22.24%	20.55%	[a]	20.50%	[a]	21.18%
Wu-Hausman			0.275			0.036
Durbin score			0.304			0.050

Notes: * Significant at 0.1; ** Significant at 0.05; *** Significant at 0.01. Standard errors are reported in parentheses. Regional controls were implemented with a help of municipality dummy variables and are not reported due to space limitations. [a] In 2SLS R2 has no statistical meaning and is not reported in the table. Instrumental variable is respondent's age. First stage F-values for IV regression with GENINV is 8.926 and with GENMEETINGS – 7.755.

Among the control variables it is necessary to point out education that appears to exert positive and significant effect in all of the specifications. This finding is in line with a substantial chunk of related literature (e.g. KNACK and KEEFER, 1997; KNACK and ZAK, 2002, etc.). Also, membership in political parties appears to be positively correlated with participation across specifications. Though, the effect is not present for *TOWNHALL* in the 2SLS specification (despite the fact that the

coefficient's sign is in the expected direction). Finally, as pointed out before, I do not find any evidence that costs of participation significantly affect these types of participation.

(ii) Monetary contributions

As it was pointed out in the descriptive statistics, there are two major decisions with respect to monetary contributions that community members face: whether or not to contribute for a concrete need (e.g. water supply system, renovation of school, etc.) and whether or not to provide regular small monetary contributions in order to create a general "maintenance" fund or one designated for a specific public good. In order to understand how cognitive factors affect both of the participation types I look at two Probit specifications: one with *1MONCONT* and one with *MONCONT* as dependent variables.

Table 12 reports the results. I, first, look at the individual propensity to make one-time contributions. Expectations that others will contribute do not exert a significant effect even though the sign of the coefficient is in an expected direction. Furthermore, both of the alternative proxies for mental models do not exhibit significant effects. Alternative trust proxy that is drawn from a question related to money-based trust positively affects the probability to make a contribution. As a result, among three cognitive factors of our interest only social trust appears to be an important condition for collective action with respect to funding local pubic goods. Social trust may be more important for successful cooperation involving monetary contributions.

However, here costs of participation appear to play a role in individual decision-making. As expected, higher income highly significantly predicts contributions. Also, individuals in larger municipalities are more likely to make a contribution. It is possible that community members are more willing to contribute if they know that there is a large enough number of potential contributors in order to deal with sunk costs of a certain public good. It is informative to look at public and entrepreneurial funding availability within a municipality and how it may affect individual incentives to contribute. Predictability of capital subsidies appears to discourage contribution as the agents may believe that local public goods can be sufficiently funded by the capital subsidies from higher tiers of the government. This is in line with the literature on the "crowding out" of donors' incentives to donate to charities due to changes in state funding availability (e.g. BERGSTROM et al., 1986). Conversely, it appears that the funding from local entrepreneurs generates a complementary effect. Individuals observing business's higher engagement in local development efforts are more probable to contribute.

Table 12: Regression results for monetary contributions

Independent variable	Dep. var.: 1MONCONT			Dep. var.: MONCONT		
	Probit	1st Stage	IV Probit	Probit	1st Stage	IV Probit
EXP1MONCONT	0.093	0.247**	0.023			
	(0.059)	(0.122)	(0.090)			
EXPMONCONT				0.012	0.125	0.036
				(0.064)	(0.131)	(0.059)
GOVROLE	-0.026	0.034	-0.031	0.038	-0.028	0.017
	(0.056)	(0.118)	(0.053)	(0.064)	(0.123)	(0.057)
TRUST2	0.053**		0.248*	0.019		-0.272**
	(0.022)		(0.142)	(0.025)		(0.112)
TRUSTVC	-0.025	0.496***	-0.128	-0.096	0.427**	0.068
	(0.078)	(0.164)	(0.107)	(0.085)	(0.169)	(0.110)
SUBSIDIES	-1.322**	-0.528	-1.127	1.160	-1.805	0.040
	(0.601)	(1.258)	(1027.499)	(1.824)	(3.836)	(1.743)
FUNDBUSINESS	1.612***	-0.392	1.718	-2.152	0.625	-0.994
	(0.403)	(0.845)	(1709.342)	(2.227)	(4.640)	(2.140)
INCOME	0.141**	0.097	0.098	0.007	0.084	0.023
	(0.055)	(0.110)	(0.078)	(0.057)	(0.111)	(0.048)
ASSETS	0.057	0.093	0.024	0.012	0.142	0.052
	(0.048)	(0.098)	(0.057)	(0.052)	(0.100)	(0.046)
CHILDREN	0.047	0.007	0.039	0.151***	0.017	0.102
	(0.045)	(0.095)	(0.047)	(0.048)	(0.094)	(0.066)
SELFEMP	0.537	0.486	0.348	-0.056	0.168	-0.002
	(0.367)	(0.700)	(0.416)	(0.385)	(0.709)	(0.303)
VILPOP	6.334***	5.210**	5.588	-7.450	3.099	-3.092
	(0.915)	(2.348)	(8117.176)	(10.389)	(21.444)	(9.558)
POLPARTY	0.241	-0.789	0.351	0.251	-1.266**	-0.187
	(0.311)	(0.588)	(0.274)	(0.332)	(0.619)	(0.347)
SEX	0.108	0.367	0.018	-0.076	0.207	0.005
	(0.127)	(0.262)	(0.150)	(0.139)	(0.269)	(0.128)
EDUCATION	0.034	-0.009	0.039	0.081	-0.078	0.012
	(0.052)	(0.109)	(0.050)	(0.054)	(0.115)	(0.064)
AGE		0.016*			0.015*	
		(0.008)			(0.009)	
Constant	-6.490***	-7.373	2.864	6.434	4.475	5.034
	(1.587)	(6823.162)	(3.511)	(8.036)	(16.527)	(7.212)
Wald test: p-value	0.000	0.000	0.000	0.000	0.000	0.000
N		503			450	
R^2	19.80%	[a]	[a]	15.96%	[a]	[a]
Test for exogeneity		0.326			0.147	

Notes: * Significant at 0.1; ** Significant at 0.05; *** Significant at 0.01. Standard errors are reported in parentheses. Regional controls were implemented with a help of municipality dummy variables and are not reported due to space limitations. [a] In 2SLS R^2 has no statistical meaning and is not reported in the table. Instrumental variable is respondent's age.

On the other hand, we see a rather different picture with regular monetary contributions. None of the coefficients of the cognitive factors variables are significant. The same we can observe with the costs of participation along with public and private funding availability. The only significant variable is the amount of children within the respondent's household. Consultations with the development experts have suggested that the schools most often put forward to parents to contribute regularly towards a special fund directed at maintenance

and renovation of the school buildings. This type of collective action has a long history stemming from the 90s and is rather established. In any case, other than this phenomenon there is a broad negative sentiment towards regular contributions. This could be due to the fact that incomes are generally rather low in comparison to the urban areas and community members may be reluctant to pay any fees apart from taxes. As a result, estimates of the second set of models should be treated with caution as they may not filter out precisely the effects of the cognitive factors that I'm looking for.

(iii) Volunteering

I now turn to another important type of collective action – volunteering or investing own time and efforts in local development. Volunteering in local communities has a long history and has been part of social life for decades. In particular, during the Soviet regime local communities organized so called "Subbotniks" – a day when community members were engaged in local social service. Residuals of these norms may still exist; however, the incentives to participate may have changed.

I start by looking at Table 13 that demonstrates the results of a normal Probit and an IV Probit regressions with the binary dependent variable *VOLUNT1* accounting for whether a respondent has ever engaged in voluntary activities within the municipality. It is necessary to point out that in the context of volunteering I use different IV as there is a substantial literature suggesting a correlation between age and volunteering (e.g. SMITH, 1983; FLORIN et al., 1986, etc.). Thus, this instrument is invalid for the specifications involving volunteering. It appears that social trust could be also explained by different types of heterogeneities including economic (KNACK and ZAK, 2002), religious (BERGGREN and JORDAHL, 2006), and ethnic diversity (KNACK and KEEFER, 1997). Consequently, as an IV I use a measure of individual perceptions about municipality-wide tolerance of ethnic, cultural and religious minorities.[54]

First, the exogeneity test indicates that we can use the results of the normal Probit model although the significance level is just above the conventional. Mental models appear to exert a slightly significant effect in the Probit specification but in the IV Probit version possibly inflated standard errors remove the significance from the coefficient. The evidence for existence of the effect of social information is inconclusive as there appears to be a significant effect in the IV Probit model but not in normal Probit. Furthermore, social trust appears to be highly significant in the decisions whether to engage or not although the effect appears to be small. It is noteworthy that in the two-stage specification the sign of social trust becomes negative and it discontinues being significant.

[54] The proxy is based on question RV22.a f the residents' questionnaire.

Table 13: Regression results for volunteering

Independent variable	Dep. var.: VOLUNT1		
	Probit	1st Stage	IV Probit
EXPVOLUNT	0.019	0.372***	0.115*
	(0.056)	(0.115)	(0.063)
COMROLE	0.121*	-0.063	0.065
	(0.073)	(0.147)	(0.073)
TRUST1	0.059***		-0.182
	(0.022)		(0.117)
TRUSTVC	0.154**	0.728***	0.301***
	(0.077)	(0.157)	(0.085)
SUBSIDIES	-1.501**	-2.696*	-2.259
	(0.696)	(1.486)	(2103.422)
FUNDBUSINESS	2.185***	3.060**	3.043
	(0.714)	(1.545)	(3048.274)
INCOME	0.059	0.157	0.076
	(0.050)	(0.102)	(0.046)
ASSETS	0.059	0.095	0.059
	(0.046)	(0.092)	(0.042)
CHILDREN	0.020	0.130	0.055
	(0.045)	(0.090)	(0.041)
SELFEMP	0.476	0.224	0.375
	(0.294)	(0.677)	(0.323)
VILPOP	4.661***	-0.165	5.220
	(0.907)	(2.245)	(11248.244)
POLPARTY	0.664***	0.363	0.635**
	(0.248)	(0.565)	(0.293)
SEX	-0.221*	0.075	-0.176
	(0.120)	(0.249)	(0.124)
EDUCATION	0.060	-0.195*	0.005
	(0.050)	(0.101)	(0.057)
HETATTITUDE		0.437***	
		(0.160)	
Constant	-8.160***	-2.364	-8.272
	(1.877)	(3.926)	(10134.668)
Wald test: p-value	0.000	0.000	0.000
N	536	522	
R^2	15.96%	[a]	[a]
Test for exogeneity	0.109		

Notes: * Significant at 0.1; ** Significant at 0.05; *** Significant at 0.01. Standard errors are reported in parentheses. Regional controls were implemented with a help of municipality dummy variables and are not reported due to space limitations. [a] In Probit with IVs R2 has no statistical meaning and is not reported in the table. Instrumental variable is a measure of respondents' tolerance towards ethnic, religious and cultural diversities.

This is probably to effect of standard errors inflation: as the effect is small in magnitude in the IV Probit model larger error terms happen to change the sign. Also, since "subbotniks" used to be organized by the village council (it could still be the case in some instances), trust towards the village council is also positively and significantly associated with the probability to volunteer. So, here the relationship between local community and the village council is more of a complementary type.

Looking at demographic characteristics it is evident that males are more likely to participate. It could be due to the fact that often volunteering in Ukrainian rural areas involves physical labor and local cultural environment may encourage males to get engaged. Also, larger municipalities are positively related to the dependent variable. There appear to be some costs of volunteering. In particular, the respondents earning main income in the household were less likely to participate. Finally, as we have seen in the case of monetary contributions, individuals are discouraged to get engaged in the municipalities with higher availability of public funding (capital subventions). There is also a complementary relationship between the entrepreneurial funding and proclivity to volunteer.

As was argued in the Subsection 4.3, it may be the case that individual decision-making with regard to participation is based on a two-stage process. First, an agent decides whether to participate or not and, second, she decides on the level of engagement. The idea to separate these processes in an empirical study for monetary contributions was introduced by SMITH et al. (1995). This idea is applied to the case of volunteering. As I have the data on the level of volunteering as a count data (i.e. amount of times volunteered in 2011 *VOLUNT2*) I will employ Poisson regression. However, as this count variable contains 45.58 % of respondents who did not volunteer in 2011 it may be better fitted using zero-inflated Poisson regression (ZIP). Vuong test's p-value of .000 indicates that ZIP model is more appropriate than simple Poisson. However, before I proceed to the results of the ZIP model it is necessary to get an idea about the extent of the potential endogeneity problem in this specification. The problem is that the ZIP model does not have analogous estimation with IVs. In order to deal with this shortcoming I employ a second-best strategy – IV Tobit model. It allows dealing with excess zeroes in the sample but the drawback is that it is based on Normal distribution, which is unsuitable for count variables. Nevertheless, I believe that we still can get a rather good idea about the persistence of the endogeneity problem between the social trust and the amount of times volunteered in 2011.

Table 14 demonstrates the results of the IV Tobit and ZIP models. Looking at the IV Tobit estimations it is evident that only mental models exert a significant effect in the expected direction. The test for exogeneity rejects the hypothesis about endogeneity of the social trust. Thus, I conclude that it is most probably reasonable to examine the results of the ZIP model. The left column exhibits the count model based on the Poisson distribution whereas the right one accounts for excess zeroes with the help of a Probit model where positive values of the coefficients indicate positive impact on the probability of making a decision to volunteer. First, the proxy for social information, even though of a

correct sign, is not significant in either of the models. The proxy for the mental models has a negative and significant coefficient in the first stage but not in the count model.

Table 14: Regression results for number of times volunteered in 2011

Independent variable	Dep. var.: VOLUNT2		Dep. var.: VOLUNT2	
	1st Stage	IV Tobit	Count model (Poisson)	Model for excess zeroes (Probit)
EXPVOLUNT	0.357***	0.517	0.042	0.112
	(0.115)	(0.404)	(0.049)	(0.087)
GOVROLE	-0.113	-0.595**	0.004	-0.173**
	(0.114)	(0.273)	(0.060)	(0.084)
TRUST1		-0.195	0.047*	-0.022
		(0.787)	(0.026)	(0.037)
TRUSTVC	0.748***	1.059	-0.140*	0.397***
	(0.157)	(0.718)	(0.082)	(0.124)
SUBSIDIES	-2.620*	-1.020		
	(1.486)	(3.777)		
FUNDBUSINESS	2.990*	0.912	0.194	-1.379***
	(1.545)	(4.121)	(0.224)	(0.530)
INCOME	0.130	-0.268	-0.014	-0.069
	(0.102)	(0.250)	(0.056)	(0.075)
ASSETS	0.098	0.079	-0.036	-0.004
	(0.092)	(0.219)	(0.056)	(0.075)
CHILDREN	0.119	0.237	0.050	-0.009
	(0.090)	(0.219)	(0.043)	(0.074)
MAININC	-0.235	0.269	0.189	-0.295
	(0.279)	(0.622)	(0.132)	(0.216)
SELFEMP	0.223	0.893	0.019	0.695*
	(0.679)	(1.481)	(0.260)	(0.365)
VILPOP	0.016	-4.307	0.523	-6.506**
	(2.259)	(5.575)	(1.565)	(3.167)
POLPARTY	0.458	2.187*	-0.195	1.077
	(0.567)	(1.260)	(0.245)	(0.800)
SEX	0.013	-1.350**	-0.303**	-0.069
	(0.252)	(0.562)	(0.142)	(0.202)
EDUCATION	-0.210**	0.904***	0.188***	0.116
	(0.101)	(0.279)	(0.042)	(0.076)
HETATTITUDE	0.464***			
	(0.162)			
Constant	-2.250	-1.047	-0.094	7.015***
	(3.867)	(8.541)	(0.593)	(0.977)
Wald test: p-value	0.050		0.000	
N/non-zero obs.	523/294		547/240	
Test for exogeneity	0.698			
Vuong test	0.000			

Notes: * Significant at 0.1; ** Significant at 0.05; *** Significant at 0.01. Standard errors are reported in parentheses. Regional controls were implemented with a help of municipality dummy variables and are not reported due to space limitations. The IV for Tobit model is a measure of respondents' tolerance towards ethnic, religious and cultural diversities.

The opposite is true for the social trust. We observe a positive effect of *TRUST1* only in the count model. Thus, social trust may play a larger role in the decision about intensity of involvement and not in the choice between participation and non-participation. Interestingly, trust towards the village council is positively associated with the probability to volunteer; however, it is negatively related to the amount of times volunteered. A basic decision to volunteer once or twice a year may be encouraged by local authorities but the activeness of volunteerring during the year appears to have an adversarial relationship with respect to the village council.

Among the controls the effect of education is positive and significant in the second stage of the decision-making process. Also, as in the basic Probit and IV Tobit model, males are more likely to volunteer. Interestingly, respondents are less likely to get engaged in larger communities. This suggests that a community feeling and closer interactions between the inhabitants may play a role in the intensity of volunteering. Among the costs of participation I only find the dummy for self-employment to be slightly significant. Finally, community members appear to react to local entrepreneurial activity. The more local business helps with local development the less likely are the residents to get engaged in local volunteering activities.

(iv) Discussion and evidence summary

I have presented a battery of empirical models that single out the effect of cognitive factors on individual behavior with respect to participation in different aspects of the community life. So, what sort of conclusions can we make with respect to our hypotheses? Table 15 presents the summary of the evidence in Subsection 4.4. First of all, I do find evidence that mental models significantly affect individual decision-making with respect to participation. In all the models, except for the ones involving monetary contributions, mental models proxies are found to be significant predictors of participation. As I pointed out before, the specification with regular monetary contributions should be treated with caution as there is a predominantly negative sentiment among local population towards similar contributions and a lot of respondents (in fact, there were 22.13 % reporting having made such contributions) may have reported making regular contributions towards local school. There is a relatively long tradition going back to the early 90s of analogous collective action among parents of children attending local schools. As a result, the fact that I did not find any of the expected effects in the specification with MONCONT should not come as a surprise.

Table 15: Evidence summary

Independent variables	Involvement in local affairs, GENINV	Participation in town-hall meetings, GENMEETINGS	One-time monetary contribution, 1MONCONT	Regular monetary contributions, MONCONT	Volunteering, VOLUNT1 and VOLUNT2
Mental Models	yes	yes	no	no	yes
Social Trust	yes	yes	yes	no	no
Social Information	yes	no	no	no	no

Source: Own elaboration.

Furthermore, social trust appears to be among other significant predictors of participation in local collective action. I find respective evidence in all of specifications except for volunteering. This evidence is in line with the mainstream literature (e.g. SONDERSKOV, 2009; BJORNSKOV, 2010) and contributes to the literature gap in the context of small-N collective action specifically in a transitional context.

Finally, social information about the actions of others does not seem to matter much with respect to individual decisions whether to get engaged or not. In other words, I do not find evidence that individuals react to their expectations about the actions of fellow community members. However, I find evidence in the context of two types of participation that agents react to the public finance situation in the municipality by adjusting their behavior. In this case information about activeness of local entrepreneurs and success of the village council with obtaining capital subsidies could be seen as common knowledge in the sense of CHWE (2001).

It is also noteworthy that participation costs in most of the cases were not found to be significant predictors of participation. Predominantly low incomes along with the scarcity of personal assets may contribute to the obtained result. Only in the context of one-time monetary contribution individual income is found to be significant.

4.5 Conclusion

One of the major challenges of participatory governance and CDD is improving community members' participation rates. This study has examined the determinants of local collective action in the transitional context. In particular, I looked at cognitive factors that represent a departure from the baseline OLSON'S (1965) "cost-benefit" group member's decision-making: mental models, social trust and social information. These factors were examined in the transitional context with respect to several different types of collective action: general involvement, participation in the town hall meetings, monetary contributions, and volunteering.

In order to approach this task I used the data from a recent residents' survey in Ukraine. I also have seriously addressed the problem of potential endogeneity.

In general, the evidence indicates that cognitive factors play a major role in individual decision-making with regard to participation in local collective action. In particular, mental models appear to be good predictors of individual proclivity to participate. This effect is observable in all the types of participation except for monetary contributions. The reason for that may be that this collective action is especially prone to unobserved heterogeneities (the context for monetary contributions varies substantially) and even though our mental models proxies exhibit expected signs the standard errors are too large. Yet, for the rest of the participation types these beliefs are of an importance.

Totalitarian centralized approach to governance may have shaped the beliefs of the local population, which up until this time affect individual decision-making. In particular, persons are less likely to participate in local collective action if they have the following two beliefs: first, community involvement cannot help local development and, second, providing well-being in the community is the task of the state only. Misleading beliefs about how the aspects of local governance work may be dangerous for the transitional processes in these countries and should be addressed directly by the development efforts. As a result, transitional process should not only be about reforming institutions but also, and rather importantly, about changing people's mindsets. Development community in Ukraine coined a term "consumerist mentality" to describe the attitudes among the local population. These relics of the Soviet past should be strategically addressed by the development agencies via awareness raising campaigns and educational activities. Specifically, external CDD interventions should be designed in a way that takes account of the local sentiment among the community members. This has the potential to improve community participation and, thus, increase efficiency of CDD approach and participatory governance in general.

The findings about the role of mental models may be as well relevant in the urban settings affecting behavior in collective action contexts. For instance, orientation interviews indicate that individual beliefs may substantially affect membership rates in the Unions of Flat Owners in Large-Panel System Buildings where individuals cooperate in order to maintain the building and common areas.

I also find that social trust positively affects participation in local collective action. Trust between the community members makes the actions of others more predictable and, thus, improves efficiency of cooperation in total. As a result, it reduces the need to implement costly mechanism of monitoring and sanctioning of deviators along the lines of the ANDREONI'S and GEE'S (2011) "gun

for hire". To my knowledge this study is the first one to look at the effect of trust in the context of community collective action in a transitional setting. It may come as a surprise that I don't find analogous effect in the specification with volunteering as a dependent variable. However, considering a long tradition of "subbotniks" rooted in the Soviet past it may be the case that this type of participation is based on existing norms of cooperation. In addition, volunteering could be seen as a way to make a statement by an individual and, thus, could put this behavior in contrast to the behavior of the other community members.

Finally, I found little evidence that social information affects community members' participation. In other words, individual expectations about the probability of other community members' engagement levels do not significantly affect participation. This indicates that the decisions to engage are quite individualized and may be more based on personal beliefs and social trust.

In sum, social trust and mental models appear to be important for a successful collective action. So far, development agencies have focused on investments in establishment of local CBOs and, more generally, in local institution building. Even though it is a legitimate objective, this chapter provides evidence that in order to achieve the goals of CDD and implement principles of participatory governance it is also necessary to invest resources in awareness raising and educational activities that directly address mental models and improve social trust within the communities. Institutions may fail in their legitimacy and, thus, in sustainability if they are not embedded in local communities (Tsai, 2007). Established CBOs may be a good fundraising tool for the local governments, as argued in Chapter 3, but this is not their primary purpose (EU, 2006). Higher participation rates have the potential to embed these institutions in local communities and make collective action more efficient and, as a result, move local development forward.

CHAPTER 5: PARTICIPATION AND LOCAL GOVERNANCE OUTCOMES

5.1 Introduction

Previous chapter dealt with the factors that determine individual decision-making with respect to participation in local community governance. I found evidence that ideology, beliefs, mental models and social trust may substantially affect decisions to participate. In this chapter it is planned to examine the effect of participation on the local governance outcomes.

Developing and transition countries are known to have weak local institutions inducing low levels of accountability in local governance. Low accountability and elite capture of local governance processes is one of the key problems in the developing world (BARDHAN and MOOKHERJEE, 2006). Devising and implementing mechanisms that could ensure accountability in local governance is challenging. Often existing governance arrangements fail to provide even basic public goods and services on the community level. Yet, there is a substantial variation with respect to the governance outcomes among the communities. What causes one community to perform better than another? Does citizen participation discipline local government? Do CBOs facilitate the effect of participation? Under which conditions or in what contexts can citizens' engagement lead to better governance outcomes? These are the questions this chapter will attempt to answer.

Last two decades have signified a shift in the governance paradigms adopting the approaches that promote citizens' involvement in local governance and public policy processes. Participatory approaches to local governance take different forms: public hearings, community-driven development (CDD), participatory budgeting, etc. They are implemented all over the world including the transition countries (WONG, 2012). Nevertheless scholarly literature on the benefits and challenges of these approaches is only emerging (SPEER, 2012). It is still not completely clear to what extent and how exactly participation impacts governance (COMMINS, 2007). A large bulk of related literature is based on the principal – agent frameworks where inhabitants exert efforts in order to monitor the actions of the agent – the government (e.g. ACKERMAN, 2004; BESLEY, PANDE and RAO, 2005). Two main mechanisms of inducing accountability were proposed by the scholars: electoral reprisal (BLACK, 1948) and informal compliance enforcement (ANDREONI, 1990; HOLLANDER, 1990). As the former has deserved a notable scholarly attention, I will focus on the latter in this chapter since the

related literature is inconclusive with respect to the effect of non-electoral participation (SPEER, 2010). Most of the related studies find evidence suggesting that elements of participatory governance (e.g. participatory budgeting, community forums, etc.) improve governance outcomes (e.g. BOULDING and WAMPLER, 2010; BESLEY et al., 2005; SPEER, 2012). Some studies also find that participation ensures representation of the interests of the poor better (BRAEUTIGAM, 2004). On the other hand, there are a number of studies that do not find an empirical link between this type of participation and governance outcomes (e.g. FRANCIS and JAMES, 2003; SHATKIN, 2000). Finally, to my knowledge, related literature has not considered a potential effect of different contexts on participation – governance relationship. Thus, there is a need for more related research and this study targets this gap in a transitional context.

Community-based and -driven approaches to local development stipulate establishment of non-governmental institutions with the aim to facilitate community participation (EU, 2006). As a result, I look at CBOs as platforms for community participation, which, according to OSTROM (1990), have the potential to enhance local collective action. Formal institutional framework of a non-profit organization[55] may help coordinate collective action by establishing more transparent and effective incentive mechanisms that facilitate citizens' participation. Consequently, establishment of a CBO within the municipality should in principle enhance the effect of participation on local governance outcomes. On the other hand, formalization of ex ante informal collective (e.g. establishment of a CBO) action within a given community may lead to a crowding out effect. In other words, with establishment of a CBO community members may reduce their engagement levels delegating respective responsibilities to the newly established organization.

This chapter will examine the effects of participation on different local governance outcomes in Ukraine and will identify potentially facilitating effect of the CBOs. Transitional setting may introduce context specific aspects to the collective action in ensuring accountability of local governance. As discussed in Section 4, individual behavior may be substantially affected by existing norms, beliefs and ideologies that have evolved over the Soviet past. As the literature examining these effects in a transitional context is very limited it is still not clear to what extent the role and the scope of participation is different in these social and institutional environments.

In order to approach these issues I, first, spell out a simple framework of accountability mechanisms within local governance. Furthermore, this study utilizes 2012 municipality-level data collected with the help of the multi-stakeholder

[55] CBOs are most often registered as non-profit organizations in Ukraine and numerous other countries.

survey with mayors and residents in Ukraine. I estimate the effect of participation and established CBOs on the mayors' valuations of five different public goods and services. The analysis controls for an endogeneity problem with the participation variables using IV technique. Moreover, in order to back up the results and better understand potential facilitating effects of CBOs I explore the data from a casual standpoint and employ a logic-based method – fuzzy sets Qualitative Comparative Analysis.

The rest of the chapter is organized in the following fashion. Section 5.2 presents theoretical framework utilized in the analysis of local governance accountability. In Section 5.3 I discuss the empirical strategy and methodology employed. Section 5.4 presents main empirical results and, finally, in Section 5.5 I provide the conclusions and implications of the study.

5.2 Theoretical framework

Ensuring accountability in local public goods provision is the key challenge in local development and good governance (BARDHAN and MOOKHERJEE, 2006; TSAI, 2007). The essence of the accountability problem is that often local government and elites follow their own interests instead of representing local population. This results in inefficiencies and misallocations of public goods delivery. However, accountability may be an even broader notion describing the degree the consumers of public goods are capable of controlling providers where the latter may also be represented by non-state actors (BESLEY and GHATAK, 2003). The standard approach in the literature addressing this problem is to look at the situation with the help of classical Principal – Agent Problem (SCHNEIDER, 1999; BESLEY et al., 2005). Inhabitants of a given municipality (the principal) delegate the responsibility of public goods delivery to local elites[56] (the agent), which (as we have seen and will see later) may as well be represented by non-governmental actors. Facing a moral hazard problem, local elites do not have their interests aligned with the principals – recipients of local public goods. In other words, influential people in the community may engage in rent-seeking activities, which results in under-provision of public goods. As a result, a challenge that arises is to design a mechanism that would ensure effective monitoring and accountability enforcement among the agents by the principals. Most of the related literature argues that participation has the potential to mitigate the information asymmetries between the providers and recipients of public services (ACKERMAN, 2004) and to better represent the interests of minorities on the community level (BESLEY et al., 2005). Let us examine concrete mechanisms of ensuring accountability in local governance processes involving participation more in detail.

[56] Local elites are referred to as the providers of public goods in order to underline the fact that providers may stem from different sectors: public, for-profit and nonprofit.

Probably the most researched mechanism of governmental accountability is related to electoral reprisal (BLACK, 1948). Within this framework municipality's inhabitants have a possibility to sanction a deviating local bureaucrat by non-election during the next term. For instance, ZHANG et al. (2004) find that those Chinese municipalities with local democratic elections are more likely to shift the tax burden from individuals to enterprises and tend to improve allocation of public goods. Competitive elections may represent a major disciplining mechanism for the bureaucrats (BESLEY and BURGESS, 2001; BESLEY and COATE, 2001). However, there is an emerging discussion among the scholars that this condition alone cannot ensure government's responsiveness and accountability (PUTNAM, 1993; CLEARY, 2007). First, electoral processes are far from perfect in developing and transition country contexts. Furthermore, elected bureaucrats may be highly opportunistic and not care about the reelection as they will be able to extract rents during their office terms (MUELLER, 1993). Along these lines, HIRSCHMAN (1970) suggests that electoral constraint will only work in conjunction with active engaged polity. BARON (1994) demonstrates theoretically that a sufficient number of informed voters that care about public policies will induce equilibriums where contesting parties choose their positions based on the informed voters' preferences. As a result, higher electoral participation may improve the electoral process itself. Yet, are there other avenues when active citizens' position and engagement can induce accountability in local governance?

Even though there is no debate about the effectiveness of electoral constraint as a disciplining mechanism for local governance arrangements, its role may be highly dependent on the context. Thus, I turn to another less researched way the polity can ensure accountability in local governance non-electoral participation. There are a number of non-electoral tools that the citizenry may use to enforce governmental accountability: demonstrations, protests, lobbying, directly contacting the bureaucrats, participation in the town-hall meetings, voluntary self-provision of public goods, etc. This type of participation is not directly related to the electoral constraint and is based on local population's civic virtue and active citizenship. Pioneering work of BANFIELD (1958) emphasized the importance of communities' public-mindedness and activism on the example of a small town in the South of Italy. Later, HIRSCHMAN (1970) suggested the importance of citizens' "voice" – ability to speak out and be heard by the government. These ideas were reinvigorated by PUTNAM (1993; 2000) who argued that governance systems with civic-minded individuals who have extensive social networks are able to reduce rent-seeking and other unproductive activities within the communities. Only recently a term has been coined to describe these notions – participatory governance. As discussed before, it is defined as "existence of institutional arrangements that facilitate the participation of

ordinary citizens in the public policy process within the realms of municipal government"[57] (ANDERSSON and VAN LAERHOVEN, 2007).

Going back to the Principal – Agent framework, it is possible to outline two major mechanisms of "participation – governance outcomes" relationship. First, it could be argued that engaged local inhabitants can better articulate their preferences to the elites and more efficiently monitor them. There may be a certain moral standard prevailing among the inhabitants according to which they judge the success of elites' actions (GOODE, 1979; BJORNSKOV, 2010). Social disapproval of the agent's actions can be a powerful tool for the principals (HOLLANDER, 1990). On the other hand, the principals may choose to provide public goods themselves, which results in self-provision or voluntary provision. Democratically governed CBOs represent a viable mechanism to bring the principals and the agents together (in fact, in case of a CBO they could be one body). Thus, following BESLEY and GHATAK (2003), bringing the providers closer to the recipients of public services may ensure greater accountability between the principals and agents. Formation of self-provision groups (CBOs) should allow involvement of individuals directly interested in a given public good. In sum, participation may affect public goods outcomes either by exerting social pressure on existing provider or via voluntary self-provision. As a result, the first hypothesis is formulated in the following fashion:

H5.1: Participation improves public goods outcomes.

In either of the cases participation is costly for the individuals (OLSON, 1965). Consequently, it is possible to argue that inhabitants face a classical collective action problem with respect to implementation of participatory governance principles within a community. In other words, there may be incentives among the individuals to free-ride on the efforts of others and, as a result, a community may be locked in low participation equilibrium. In addition to testing the theoretical link between participation and governance outcomes, it is of an interest to identify factors that may facilitate this relationship by resolving this collective action problem.

The obvious factor that may influence the effect of participation is a CBO. There are two ways a community non-governmental organization can influence local governance outcomes. First, as an institution (formalized to some degree) CBO may utilize its competitive advantage focusing on provision of a specific public good or a number of them (HANSMANN, 1988; OPSTAL and GIJSELINCKX, 2008). For instance, a consumer cooperative focusing on water supply is more likely to

[57] It is worth pointing out that operating with the concept of "governance" the literature predominantly looks at the municipality level as it most straightforwardly demonstrates the theories put under test (CLEARY, 2007).

deliver public services effectively in contrast to a traditional in Ukraine state-owned communal enterprise as the members have better incentives to provide good quality services in line with the arguments of BESLEY and GHATAK (2003). As a result, institutional comparative advantage may exert a direct effect on governance outcomes. Thus, the second hypothesis states:

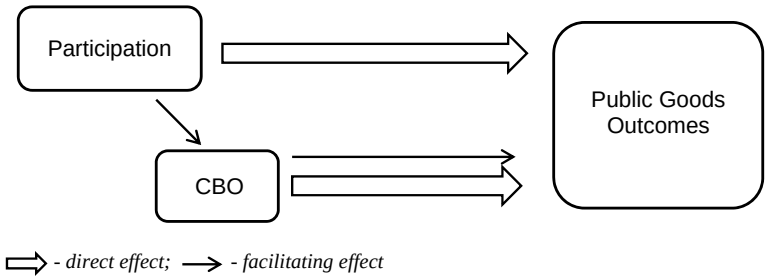
H5.2: Established CBOs lead to better public goods outcomes.

Second, a CBO could be seen as a platform for community members' participation. Formalization of informal participation into community organizations may substantially improve effectiveness of the "participation – governance" relationship (OSTROM, 1990). Individuals organize themselves in institutions in order to minimize the costs of collective action (OSTROM et al., 1994). These costs could be associated with information asymmetries and transaction costs of the collective decision-making. Examples of the community organizations range from street committees or informal cooperation within ethnic groups to officially registered NGOs. As argued in Section 1.4, many development agencies across the world promote establishment of formalized community organizations within the CDD framework. It is expected that these institutions facilitate community participation and make it more effective (WORLD BANK, 1999). In Chapter 3 I found that local CBOs in Ukraine are predominantly established by the local governments in order to facilitate their fundraising efforts. Consequently, the extent to which these organizations actually facilitate the effect of participation on local governance outcomes may be limited. These issues remain to be resolved empirically by the analysis that is to follow. The third hypothesis, however, is formulated in the following fashion:

H5.3: Established CBOs facilitate the effect of participation on the governance outcomes.

To sum up, I draw the reader's attention to Figure 13 demonstrating a summary of major relationships within the theoretical framework. Here individual non-electoral participation is a central determinant of the good community governance. This effect is represented by the double fat arrow and that is precisely the effect I will estimate below. Now let me turn to the two types of effects CBOs may exert on local public goods outcomes. First, a CBO, as an institution having competitive advantage in comparison to public and for-profit providers, may exert a direct effect on the governance outcomes (this is also represented by the double fat arrow). Second, CBOs may also improve accountability in local governance by amplifying the effect of community members' participation and it is depicted by two single thin arrows going from "Participation" to "CBO" and from "CBO" to "Governance Outcomes".

Figure 13: Summary of major relationships involving non-electoral participation



Source: Author's elaboration.

It is important to point out that these relationships may be rather context-dependent. The nature of a given public good in question may determine the effects of both participation and CBOs. BURGER and KOLSTAD (2009) suggest that the individuals are more likely to cooperate in the settings when there is less uncertainty about the benefits of cooperation. Extrapolating these findings into the context of local governance it is clear that the effect of participation may vary depending on the considered public good. Thus, for instance, the benefits may be higher and clearer in the context of water self-provision in comparison to local healthcare or education. The probability to benefit from community members' investments in sunk and maintenance costs of a water supply system may be higher in comparison with the investments in health post or school building renovation as the higher levels of satisfaction with these public goods are associated with other public investments (e.g. equipment, staff expenses, etc.) out of control of local communities. This brings me to the last hypothesis formulated in the following way:

H5.4: Participation and CBOs exert larger effects in the context of public goods associated with more certain and tangible returns for community members.

As I consider 5 specific public goods in this study I assume that local health-care, education, and waste management are characterized by low certainty of returns; whereas water supply and streets maintenance – with high. This is due to the fact that the collective action with respect to the former may be subject to a lot more state regulations and restrictions. Orientation interviews indicate that local communities are more in control over the latter public goods and that the benefits are perceived to be high and tangible. As a result, both non-electoral participation and CBOs are expected to be better predictors of more favorable water supply and streets maintenance outcomes.

5.3 Empirical strategy

The general approach of this chapter's empirical part is to estimate the effect of participation and CBOs on different public goods outcomes. In particular, the following relationship will be examined:

$$PG_j = f_j(Participation, CBO, Controls)$$

Here public good j's provision level is a function of participation proxies, established CBO and control variables. The advantage of this study is that I look at $j = 5$ different public goods outcomes that may form different perceptions among the local populations about the uncertainty of participation's benefits.

Considering limitations of the available data I proceed with triangulation of methods. In particular, I, first, outline the econometric regression techniques utilized in the study. Subsequently, in order to back up my result and broaden the story I employ an alternative method – fuzzy sets Qualitative Comparative Analysis (fsQCA).

(i) Data and variables

As in the previous chapters, I predominantly utilize the data from the structured interviews with the residents, mayors and CBO leaders. Additional data source is UkrStat. I sampled randomly ca. 7.2 % of the municipalities from two representative regions: Dnipropetrowskyy and Ternopilskyy regions. Additionally, I sampled 8 to 17 municipality residents depending on the population. Substantial part of the variables is constructed by calculating respective municipality averages. In particular, some of the independent variables represent municipality-wide averages of the inhabitants' responses. For instance, I use the following proxies for participation: frequency of participation in the town hall meetings (*TOWNHALL*) and willingness to exert social pressure on non-cooperators (*PEER*). The former variable is constructed from the residents' survey using 1 to 5 Likert scale (question RV8.b) reflecting different categories of participation frequency. The latter is constructed from a hypothetical situation where respondents are faced with a 1 to 10 scale of how actively they would engage in convincing non-cooperating individuals to get engaged in the collective action (question RV12.b). These variables were chosen in order to diversify the types of participation. First, I am interested in the participation that is facilitated by the village council – participation in the town hall meetings. It may reflect the degree to which individuals hold local government accountable. And the second variable reflects proclivity to participate in a more informal domain. Thus, it could proxy informal or grass-roots participation in the context of self-organization and self-provision of public goods. There is a small in magnitude negative correlation between them (correlation coefficient – .21). In line with the theoretical framework, I

expect both participation proxies to be positively correlated with better community governance outcomes – the dependent variables.

Dependent variables used in this study come from the mayors' survey. In particular, measures of satisfaction with the level of 5 public goods quality at the time of the interviews were used: local school building *SCHOOL*, health-post building *HCPOST*, municipality-wide access to water *WATER*, cleanness of the streets STR and the degree to which waste management is organized *WASTE*. All of these public goods were identified as priority ones during the orientation interviews and they all are to different degrees in control of local communities. In other words, these are the public goods that may be substantially improved by active and engaged local communities whereas others not. I used these variables instead of municipality-wide averages from the residents' survey in order to minimize a potential bias in residents' responses, which is arguably larger than the one of the mayors. There still may be a self-reporting bias in the mayors' responses. However, it will not affect the variance of the responses as it will probably make an upward shift across all the mayors' responses as they may over-value respective public goods. As before, these variables are based on a 1 to 4 Likert scale measuring the degree to which a respondent agrees with a given statement about respective public good.[58]

Table 16 gives an overview of the variables and respective summary statistics. Among the rest of the independent variables it is necessary to point out the proxies for facilitating factors. In order to reflect for establishment of a non-governmental community organization I use two proxies. First, a simple dummy variable CBO reflects for the mere fact of a CBO establishment within the municipality. And, second, I also use the index for capacity of a local CBOs (*CBOCAP*), which is used in the sub-section utilizing fsQCA and is constructed using four questions from the questionnaire with the CBO leaders. They are related to the quality of CBO's funding portfolio and cooperation network. Following the theoretical arguments, higher capacity CBOs should facilitate the effect of participation on local governance outcomes. Furthermore, economic inequality is captured by the income- (GINI) and assets-based (AGINI) Gini indices calculated for each municipality. As an alternative measure of economic heterogeneity, I use residents' perceptions about income inequality (*ECHETERO*). Finally, index for ethnic heterogeneity (*ETHHETERO*) is created based on the interviews with the mayors. It accounts for the amount of different nationalities living within the municipality.

[58] Please, consult Appendix B.3 for further information on the origin of these variable (questions MV23.e, MV23.f, MV26.f, MV33.a, MV41.a)

Table 16: Descriptive statistics (n=54)

Variable	Description	Mean	Std. Dev.	Min.	Max.
Dependent variable					
SCHOOL	Mayors' valuation of the school building within the municipality	2.91	1.12	1	4
HCPOST	Mayors' valuation of the health-post in the municipality	2.91	1.09	1	4
WATER	Mayors' valuation of the access to water within the municipality	2.81	1.03	1	4
STR	Mayors' valuation of cleanness of local streets	3.02	.77	2	4
WASTE	Mayors' valuation of organization of waste management within the municipality	1.44	.95	1	4
Independent variables					
CBO	Dummy for CBO existence within a municipality.	0.48	0.50	0	1
TOWNHALL	Average municipality-wide frequency of participation in the town hall meetings (1 to 5 scale).	3.49	.59	2.1	4.56
PEER	Average municipality-wide readiness to exert peer pressure on deviators (1 to 10 scale)	5.34	.86	3.6	7.29
MENTAL	Average municipality-wide agreement with the statement "Providing well-being for the community is solely responsibility of the government".	2.13	0.49	1.31	3.13
FUNDBUSINESS	The degree to which local business has contributed financially to local development during last two years	2.5	1.09	1	4
SUBSIDIES	Predictability of subsidies for the next fiscal year (1 – not predictable at all; 4 – very predictable)	1.74	.86	1	4
TRUST	Average social trust within the municipality	6.90	1.13	4.22	9.63
EXTFUND	Dummy for an extraordinary budget revenue contributor	.056	.23	0	1
POP	Municipality's population	1238	789	198	5006
#VIL	Number of villages within a municipality	2.59	2.00	1	10
DIST	Distance to the nearest town (at least rayon center)	19.76	11.72	5	70
PARTY	Dummy for mayor's membership in the ruling party	.41	.50		
DEPMEET	Amount of times village council deputies meet to discuss current issues	11.04	7.55	2	48
Instrumental variables					
GINI	Income-based GINI coefficient	.26	.06	.12	.39
AGINI	Asset-based GINI coefficient	.25	.06	.14	.35
ECHETERO	Average municipality perceptions about local differences in incomes	3.32	.42	2.22	4
ETHHETERO	Index for ethnic heterogeneity within a municipality	1.93	1.06	0	5

There is a number of control variables used in this chapter – they could be consulted in Table 16 as well. The aim of this study is to single out the effect of participation on local public goods outcomes other factors being equal. Thus, I need to control for the situation with public finance (*SUBSIDIES*) and the extent local entrepreneurs engage in local development (*FUNDBUSINESS*). In addition, I include a number of other variables in the regression models controlling for administrative and economic characteristics of a given municipality.

Finally, even though the econometric methods are discussed below[59] it is necessary to point out that I use several heterogeneity proxies in order to instrument for the potentially endogenous participations rates. First, I use economic heterogeneity – income-based Gini index GINI and asset-based Gini *AGINI*. Second, ethnic heterogeneity index is utilized in order to proxy *ETHNIC* for the ethnic fragmentation in the municipalities.

(ii) Econometric models

In order to proxy for local governance I use its output – quality of local public goods and services. The focus is on five different local public goods that are of a central concern for the local population: local school, health posts, water supply systems, streets maintenance, and waste management. As outlined above, I have the data for the mayors' valuation of each of these public goods. Each of them represents an output of local governance but delivery of either of these may be interrelated because of two reasons. First, this relationship arises when local leaders need to prioritize and possibly focus on one or two public goods in the environment of scarce resources. In other words, investment in one public good may affect investments in the others. For instance, if local leaders decided to invest resources in renovation of local school they will be less likely to also undertake something with respect to local water supply system or any other public goods. Second, it is possible that the mechanism through which participation may affect public goods outcomes may differ depending on the outcome. In particular, community members' participation may be more effective in the case of local education as opposed to healthcare as there is more scope to impact the level of provision in the context of the former.

As a result, if I were to run individual regressions explaining levels of provision of each of them I would need to account for the possibility that error terms of the respective regressions may be correlated. In this case, it is appropriate to use seemingly unrelated regressions (SUR) model (Greene, 2012).[60] The idea is to run separate regressions for each dependent variable assuming the error terms are correlated. This approach allows accounting for the fact that community elites may prioritize local development goals in the environment of limited resources. Clearly, an index constructed from five separate dependent variables would reduce the amount of output information from the models and it would be difficult to single out the effect of participation on a concrete public good. Using the same regressors for all the independent variables produces the same coefficients as if I ran separate OLS regressions but the standard errors are adjusted to the correlations in the disturbance terms of each regression (ibid.).

[59] I discuss the rationale for using these IVs in the following sub-section.

[60] For a short introduction of the method, please, refer to the Appendix C.4.

Another advantage of SUR model is that it is possible to jointly test the significance of the coefficients across the regressions.

Even though I present some discussion and results of the SUR model in the Appendix C.4 there is a major problem using SUR model. Having a discrete dependent variable with ordered response categories generates a bias. Models with ordinal dependent variables are clearly best fitted using ordered Probit model (GREENE, 2012). The idea of the model is based on the latent regression:

$$y^* = x'\beta + \varepsilon$$

with y^* unobserved and the following values of observed values of y:

$$y = 0 \text{ if } y^* \leq 0,$$
$$y = 1 \text{ if } 0 < y^* \leq \mu_1,$$
$$y = 2 \text{ if } \mu_1 < y^* \leq \mu_2,$$
$$\dots$$
$$y = J \text{ if } \mu_{J-1} \leq y^*.$$

Here with J observed values of the dependent variable we have $J-1$ parameters μ that we want to estimate with the help of β. It is assumed that the error terms are normally distributed. As a result, for all $0 < \mu_1 < \mu_2 < \cdots < \mu_{J-1}$ corresponding probabilities are:

$$Prob(y = 0|x) = \Phi(-x'\beta),$$
$$Prob(y = 1|x) = \Phi(\mu_1 - x'\beta) - \Phi(-x'\beta),$$
$$Prob(y = 2|x) = \Phi(\mu_2 - x'\beta) - \Phi(\mu_1 - x'\beta),$$
$$\dots$$
$$Prob(y = J|x) = 1 - \Phi\big(\mu_{J-1} - x'\beta\big).$$

However, using this econometric model comes with a price. The problem is that there is no analogical estimation procedure for ordered Probit that would account for possible correlations between the disturbance terms of each of the regressions. Thus, estimating each equation separately using ordered Probit, I run a risk of introducing another bias due to not accounting for potential relationships between the decisions to invest in different public goods and due to possibly different mechanisms through which participation and CBOs affect public goods outcomes.

In addition, it may well be the case that the levels of public goods provision affect local participation levels. As a result, there may be a circular causation between these variables and we end up facing an endogeneity problem. Assuming endogeneity between our variables the results obtained with the help of

ordered Probit models will be biased. In order to deal with this challenge I use instrumental variables technique (IV). As already discussed in the Chapter 4, the idea is to find a variable that would be correlated with the potentially endogenous one but independent of the error term (WOOLDRIDGE, 2002). In our case reasonable IVs could be measures of ethnic and economic heterogeneities. There are a number of studies that find a link between the collective action outcomes and, first, income inequality (BARDHAN et al., 2007; ALESINA and LAFERRARA, 2000) and, second, ethnic heterogeneity (HABYARIMANA et al., 2007; ALESINA and LAFERRARA, 2005). In the first stage, I regress potentially endogenous variable on the set of all the instruments. Then, using predicted values from the first stage I estimate the regression of interest. As a result, I obtain the coefficients corrected for the endogeneity bias. It is not straightforward to control for endogeneity in the context of ordered Probit models in Stata as there is no respective command. The only feasible way to proceed is following ROODMAN (2011) utilizing recursive mixed-process models that employ maximum likelihood (ML) estimation process.[61] As a result, this allows me to run an ordered Probit model with IVs.

Directly addressing the endogeneity problem between governance outcomes and non-electoral participation is one of the features that distinguish this study from the rest dealing with similar issues. In addition, focus on separate public goods provides a better encompassing picture of how participation may affect governance outcomes.

(iii) fsQCA

In order to get a sense of the data from the standpoint of configuration of cases I employ fsQCA technique. As discussed in Section 3.3, the goal of the method is to identify the most parsimonious combination of sufficient conditions for an outcome of interest (RAGIN, 2000). FsQCA is particularly useful in identifying a combination of two or more sufficient factors leading to the outcome of our interest and, as a result, it is possible to test moderating effects of local CBOs. In addition, the setup of the fsQCA models allows testing for the role of population heterogeneities in the governance outcomes. I use economic and ethnic heterogeneities as instruments in the 2SLS specifications but it is also of interest how these factors can moderate the effect of participation on the public goods outcomes. As these variables need to be excluded from the 2SLS specifications I test these effects using fsQCA.

On the other hand, considering limitations of available data this approach can also be seen as an attempt to triangulate the methods in order to obtain reliable results. As was argued in Section 3.3, fsQCA is growing in reputation in public

[61] Respective command in Stata is "cmp".

policy research with small and medium number of observations (RIHOUX, 2006; LONGEST and VAISEY, 2008).

I proceed with the two-stage approach offered by SCHNEIDER and WAGEMANN (2006). The aim of this technique is to address the problem of limited diversity arising from too complex logical models. The logic is to divide relevant casual factors in two groups: remote and proximate. In the following step, running fsQCA algorithms one identifies the sufficient conditions among the remote factors. Then, having identified the combinations of sufficient remote factors I run fsQCA procedures with all the proximate conditions and one of the remote ones that were found to be sufficient in the first step. As a result, based on theory-driven manipulations this approach reduces the amount of logical remainders – possible combinations of conditions that are missing empirical observations (ibid.). In our context it is relatively straightforward to identify the remote and proximate factors.

Following SCHNEIDER and WAGEMANN (2006) I, first, identify remote conditions that affect governance outcomes – environmental factors that are "outside the reach of the conscious influence of present actors…" (ibid.). In our case they are: ethnic heterogeneity *ETHHETERO*, income inequality GINI, and level of social trust in a given community *TRUST*. On the other hand, "proximate factors vary over time and are subject to changes introduced by actors" (ibid.). I include two types of participation – the extent the community exerts peer pressure *PEER* and frequency of participation in the town hall meetings *TOWNHALL*. In addition, I use the index for CBO's capacity *CBOCAP*. This stands in contrast to the regression specifications where I use a simple dummy in order to reflect the mere fact of a CBO establishment.

In order to proceed with fsQCA I, first, need to adjust the hypotheses for this method. Based on the arguments of the theoretical framework the first-stage hypothesis involving remote conditions could be formulated in the following fashion:

H5.5: Improvements in local public goods delivery (PG) are likely to be brought about by the combination of the following remote factors:

1) *Higher levels of social trust (TRUST);*
2) *Higher degree of ethnic homogeneity (ethhetero);*
3) *Lower degree of economic inequality (gini).*

Using the epistemic terminology of the method the first-stage hypothesis could be stated in a formal way: $TRUST * gini * ethhetero \rightarrow PG$. This expression basically means that sufficient conditions for better public goods and services

may be higher levels of social trust and lower levels of economic and ethnic heterogeneity.

The second-stage hypothesis involving proximate conditions should be formulated in the following fashion:

H5.6: Improvements in local public goods delivery (PG) are likely to be brought about by the combination of the following proximate factors:

1) *Higher capacity of local CBO (CBOCAP);*
2) *Higher levels of participation (TOWNHALL and PEER);*

Formalized local expression for the second stage is $REMOTE * CBOCAP * TOWNHALL * PEER \rightarrow PG$ where *REMOTE* is the combination of sufficient conditions from the first stage. In other words, high capacity CBO and higher levels of participation in combination with the sufficient remote factors (identified using fsQCA in the first stage) should result in better public goods outcomes.

The method fsQCA is based on the Theory of Sets that uses subset relationships to indicate casual sufficiency (RAGIN, 2000). Thus, all the observations have to be converted into values ranging from zero to one, i.e. the data has to be "fuzzified". The values of a given observation indicate its membership in the set of the respective condition. Table 17 demonstrates how calibration was conducted. It is, first, necessary to point out that I am considering only four public goods here as there is not enough variation in the quality of waste management services to detect a set-theoretic relationship.[62] "Fuzzification" of the outcomes is relatively straightforward. Since all of them are based on the variables constructed from a 1 to 4 Likert scale I assign value '0' to Likert scale's value of '1', '0.33' to '2', '0.67' to '3', and value of '1' to '4'.

Most of the conditions (with the exception of *ethhetero*) are based on continuous variables and, thus, I look at their distributions before proceeding with calibration. This allowed translating numeric values into set-theoretic membership relationships. All the conditions are calibrated in accordance with the following pattern. Depending on the shape of the distribution fuzzy value of '0' (meaning that the observation is completely out of the condition set) is assigned to the values ranging from the minimum to either 1st quartile or to the median. In particular, if the variable's distribution was symmetrical I was using 1st quartile as a cutoff point and if it was skewed to the left – median. Fuzzy value of '0.33' (more out than in) was assigned to the values of the variables between the 1st quartile or median and the average; '0.67' (more in than out) was assigned to the values ranging from the average to the 3rd quartile. And, finally, fuzzy value of '1' (completely in the condition set) was assigned to the values above the 3rd quartile.

[62] In 79.6% the mayors valuated waste management services as very bad.

Table 17: Calibration of the fuzzy sets

Outcomes	Measure	Min	Max	Mean	Median	1st Quartile	3rd Quartile	Definition of Fuzzy Set Values
SCHOOL	Mayors' valuation of the school building within the municipality	1	4	2.91	3	2	4	0: Likert scale value of '1'; .33: Likert scale value of '2'; 0.67: Likert scale value of '3'; 1: Likert scale value of '4'.
HCPOST	Mayors' valuation of the health-post in the municipality	1	4	2.91	3	2	4	Same as above.
WATER	Mayors' valuation of the access to water within the municipality	1	4	2.81	3	2	4	Same as above.
STR	Mayors' valuation of local streets maintenance	1	4	3.02	3	2	4	Same as above.
Conditions								
TOWNHALL	Average municipality-wide frequency of participation in the town hall meetings (1 to 5 scale)	2.1	4.56	3.49	3.5	3.13	3.88	0: between min value and 1st quartile; 0.33: between 1st quartile and median; 0.67: between median and 3rd quartile; 1: between 3rd quartile and max value.
PEER	Average municipality-wide readiness to exert peer pressure on deviators (1 to 10 scale)	2.64	8.25	4.94	4.96	4.14	5.59	0: between min value and 1st quartile; 0.33: between 1st quartile and median; 0.67: between median and 3rd quartile; 1: between 3rd quartile and max value.
TRUST	Average social trust within the municipality	4.22	9.63	6.90	6.84	6.21	7.69	Same as above.
ETHHETERO	Index for ethnic heterogeneity within a municipality	0	5	1.93	2	1	3	0: Index value of '0' and '1'; 0.67: Index value of '2' and '3'; 1: Index value of '4'.
GINI	Income-based GINI coefficient	.12	.39	.26	.26	.23	.31	0: between min value and median; 0.33: between median and average; 0.67: between median and 3rd quartile; 1: between 3rd quartile and max value.
CBOCAP	Index for local CBO capacity	0	4.5	1.02	0	0	1.75	0: Index value less than '1'; 0.33: Index value between '1' and '2'; 0.67: Index value >'2' and <='2.75'; 1: Index value > '2.75' and <= '4.5'

It is important to point out that even though fsQCA as methodology is based on the Theory of Sets claiming casual relationships grounded in the subset relationships, it is still impossible to disentangle the simultaneity problem between participation and governance outcomes. The added value of fsQCA in this context is that it provides an opportunity to examine what combinations of casual conditions could be viewed as sufficient for better governance outcomes.

5.4 Results

Before going to the regression results let us examine some interesting descriptive statistics related to public goods prioritization based on the data of mayors' and residents' surveys. Since I set up econometric models in a way that does not explicitly consider prioritization it is informative to look at the data. Following the logic above, the decision to invest in one public good may affect the decisions to invest in the other due to predominantly fiscally constrained conditions of local governance. Let us examine how mayors prioritize addressing the needs in local public goods. First, it is necessary to point out that majority of mayors consider local school a top priority – 35.19 %. During orientation interviews many respondents indicated that the school is considered to be a social focal point and can "play a role of a church". We see a similar picture in the residents' data with 27.55 % of the respondents indicating that local school is a priority. Second most important public good appears to be local water supply with 22.22 % of the mayors and 25.00 % of the residents identifying it as a priority. Finally, local healthcare finds itself the last on the mayors' (14.81 %) and residents' (20.58 %) priority list. One of the reasons healthcare is on the last place is that the control over local health posts was handed over to the rayon level governments after the 2011 medical reform. As a result, mayors may feel less able to influence the quality of local healthcare services.

(i) Econometric models results

Before I proceed to discuss the results it is necessary to point out several issues about the specifications. While the SUR model (presented in Appendix C.4) directly assumes correlations between the error terms the ordered Probit model obviously uses a different estimation procedure. As a result, the ordered Probit regressions do not account for prioritization of the community-level investments in local public goods. However, in addition to the disadvantages there are also advantages using the latter as it is more suitable for categorical ordered dependent variables. In sum, presenting the results of the ordered Probit model with IVs minimizes potential biases.

Table 18 presents estimation results of the ordered Probit models with IVs. The first observation I point out is that there are three public goods where I find the expected effect of participation at least in one proxy: the quality of local school building, mayors' satisfaction with the water supply services and with the streets maintenance. Water supply and local schools appear to be significantly affected by both types of participation: peer pressure and participation in the town hall meetings. Accordingly, the more local inhabitants participate in the town hall meetings and exert social pressure within the community the more likely the municipality to have better water supply and education services outcomes. As a result, monitoring and pressuring the government via the town hall meetings along with self-organization appear to be important conditions for better governance outcomes. Noticeably, I find the hypothesized relationship in the context of local school which was classified to have uncertain returns in Sub-section 5.2. Even though the control over local education is to a limited extent in the hands of local communities they appear to still be able to impact the quality of local school buildings. First, the data suggests that schools appear to be of a highest priority for the communities and, second parents' committees – informal organizations that mobilize resources from the parents for school related needs – may exert a substantial effect on the education services outcomes. Interestingly, I also find a relatively small significant effect of peer pressure *PEER* on the outcomes of streets maintenance. It is noteworthy that the type of participation that is related to individual self-organization is associated with better streets maintenance as this may be the case for self-provision. As was noted in Chapter 4, there may be some informal cooperation norms stemming from the Soviet past when individuals would gather together for "subbotniks"[63] in order to keep the territory of the community maintained. For the rest of the public goods under consideration the effect of participation is close to zero and the respective coefficients are not significant. As was pointed out before, due to healthcare reform in 2011 communities lost much of control over local health posts and the dependence on the funding from the rayon budget reduces communities' incentives to invest. Insignificance of the coefficients in the context of waste management may be explained in two ways. First, the communities may not perceive it as a priority. Second, it may require substantially higher investments in order to establish a proper waste management system.

[63] Stems from a Russian word "Saturday" meaning "a weekend extra-work activity" and is basically a tradition to clean and maintain the territory of the community.

Table 18: Estimation of the ordered Probit models with IVs for each of the public goods

Independent variables	HCPOST / IV	SCHOOL / IV	WATER / IV	STR / IV	WASTE / IV
CBO	-0.921	-0.404	7.246**	-0.118	18.540*
	(0.725)	(0.845)	(0.023)	(0.962)	(0.073)
PEER	0.395	0.718*	1.077**	0.556*	0.227
	(0.263)	(0.083)	(0.037)	(0.062)	(0.648)
TOWNHALL	0.938	2.136***	2.825***	-0.518	-0.343
	(0.260)	(0.001)	(0.000)	(0.611)	(0.794)
FUNDBUSINESS	0.130	0.711***	0.136	-0.171	-0.864
	(0.627)	(0.001)	(0.627)	(0.570)	(0.235)
SUBSIDIES	0.225	-0.016	0.059	0.481	2.059
	(0.577)	(0.971)	(0.893)	(0.152)	(0.263)
TRUST	-0.199	-0.365*	-0.025	-0.118	-0.072
	(0.338)	(0.094)	(0.910)	(0.571)	(0.896)
POP	0.001**	0.001***	0.001*	0.000	0.003*
	(0.019)	(0.008)	(0.080)	(0.224)	(0.056)
DEPMEET	0.157***	0.077***	0.014	0.051	0.195
	(0.003)	(0.005)	(0.749)	(0.197)	(0.162)
DIST	0.039**	0.047***	0.038*	-0.012	-0.136
	(0.039)	(0.005)	(0.052)	(0.611)	(0.204)
#VIL	-0.185	0.066	0.175	0.138	-2.231
	(0.155)	(0.674)	(0.210)	(0.385)	(0.153)
PARTY	1.028	2.815*	1.156	-7.209***	6.713
	(0.529)	(0.067)	(0.520)	(0.000)	(0.140)
CBO*TOWNHALL	0.421	0.459	-0.455	0.044	-2.690
	(0.454)	(0.307)	(0.466)	(0.936)	(0.190)
CBO*PEER	-0.186	-0.326	-0.957**	0.118	-2.637
	(0.551)	(0.237)	(0.011)	(0.687)	(0.136)
N	54	54	54	54	54

Notes: * Significant at 0.1; ** Significant at 0.05; *** Significant at 0.01. p-values are reported in the brackets. Regional controls were implemented with a help of regional dummy variables and are not reported due to space limitations. IVs used in each of the regressions are ETHHETERO, GINI and AGINI.

As a result, I find some evidence supporting Hypothesis 5.1 regarding the effect of participation on the governance outcomes. However, as expected, it turns out to be quite context-dependent. Water supply, local educational services and (to some extent) streets maintenance appear to be more prone to the effect under consideration in contrast to healthcare or waste management. Thus, in line with the arguments of BURGER and KOLSTAD (2009), participation may affect more those public goods for which the benefits of participation are clear and certain from the point of community members' view. The effect is in line with the hypothesized certainty of expected benefits for all the public goods with the exception of education services.

Let us now turn to the effect of CBOs. The coefficients of the respective dummy variables are significant and of an expected sign in the specification with water supply and waste management satisfaction as a dependent variable. In other words, the municipalities with the established CBOs are more likely to enjoy better water supply and waste management services. As a result, CBOs, due to their institutional advantage, appear to exert a direct effect on the quality of the water supply systems and waste management outcomes. The coefficients of the CBO dummies in the rest of the specifications fail to demonstrate significance. Accordingly, the evidence grants some support to the second hypothesis.

It is noteworthy that the simultaneity problem in the case of the variable CBO is unlikely as most of the organizations of interest were established several years before the data collection.[64] As a result, the lag between organizations' establishment and the valuation of the public goods during the moment of the interviews allows minimizing endogeneity issues.

What about facilitating effect of the CBOs in the context of the third hypothesis? If CBOs were to enhance the effect of participation then we would observe positive and significant coefficients of the respective interaction terms. Most of the coefficients are insignificant with an exception of the one *CBO*PEER* in the specification with water supply outcomes as a dependent variable. However, here I find a negative sign, which suggests that with presence of a CBO within a municipality the effect of peer pressure on the water supply outcomes will be mitigated. This may be the case if there is a tradeoff between informal cooperation and formalization of cooperation in the form of a CBO. With the establishment of a CBO informal participation may simply become less relevant for the water supply situation improvements. CBO as an organization may be a preferred form of provision in the context of water supply.

[64] As pointed out before, most of the CBOs in the sample were established in 2008 or 2009. This coincides with broad promotion campaign lead by the UNDP's Project "CBA".

Finally, let us examine some control variables. First, it is noteworthy that in most of the specifications municipalities' population is significantly and positively associated with the public goods outcomes. This indicates that there may be economies of scale in delivery of the respective public goods. Moreover, availability of funding from private sources within a given municipality appears to exert positive and significant effect on the quality of school buildings. Thus, local entrepreneurs may tend to provide monetary charitable contributions mainly towards local school. This is not surprising as the data indicates that both mayors and the residents identify local schools to be a priority. Surprisingly, predictability of capital subsidies in case applied for *SUBSIDIES* appears to be insignificant across the specifications. World Bank indicates that largely unpredictable capital subsidies are very rare in rural areas and, as a result, may not affect quality of local public goods to the extent they are supposed to (WORLD BANK, 2008).

(ii) fsQCA results

As presented in the Subsection 5.3, the strategy is to, first, identify remote conditions for our outcomes and then using the results of the first stage run the model with the proximate conditions. In my case remote conditions are municipality-wide level of social trust *TRUST*, index for ethnic homogeneity *ethhetero*, and Gini coefficient *gini*. I run fsQCA algorithms for each of the public goods except for the waste management. For all the first stage models I use a rather stringent consistency cutoff value of 0.8 (in contrast to SCHNEIDER and WAGEMANN (2006) who use 0.7). This will ensure higher logical consistency of the solutions. Finally, in all the models I consider only those configurations that have at least two observations whereas all the rest are treated as logical remainders.

Table 19 reports the results for the models with the outcome – quality of local health post's building. After running QUINE-MCCLUSKEY algorithm I obtain the first stage solution that could be expressed as follows: $ethhetero * GINI + ETHHETERO * TRUST \rightarrow HCPOST$. Thus, better health post building should be expected in two types of communities: with ethnically homogeneous population and unequal incomes or with ethnically heterogeneous population and higher levels of social trust.

In the second stage I run fsQCA procedures with proximate conditions identified in Subsection 5.3 and each of the configurations of the remote conditions obtained in the first stage. Here I use only those configurations that have significantly larger Y-consistency than N-consistency at a 5 % significance level. Let us look at the results of both of the second-stage models. The configurations with the most coverage in the first model is ethnic homogeneity and low levels of social trust *(ethhetero*trust*) and in the second one – ethnic homogeneity

and low participation rates in the town hall meetings (*ethhetero*townhall*). This indicates that ethnic homogeneity is one of the sufficient conditions for better outcomes with local healthcare services. However, we further see second-stage solutions with high levels of participation (*gini*PEER* and *trust*PEER*TOWNHALL*) with lower coverages. This grants support to all the hypotheses involving remote and proximate conditions. Furthermore, one of the solutions with relatively high coverage and consistency is the combination of high capacity CBO and participation in the town hall meetings (*CBOCAP*TOWNHALL*), which is also in accordance with my hypotheses. In contrast to ordered Probit models' results fsQCA provides an opportunity to look at the data more closely and identify the relationships that would be overlooked otherwise. Keeping in mind the results from Chapter 3 where I found that local CBOs could be considered extensions of local bureaucracies, this solution implies that only those CBOs that are closely related with the village councils in combination with high attendance of the town hall meetings will bring about better outcomes of the healthcare services.

Table 19: fsQCA results for health post building quality HCPOST

1st Stage Model with Remote Conditions: $TRUST * ECEQUAL * ethhetero \rightarrow HCPOST$			
Parsimonious Solution	**Raw Coverage**	**Unique Coverage**	**Consistency**
ethhetero*GINI	0.319	0.203	0.824
ETHHETERO*TRUST	0.379	0.263	0.829
Solution coverage: 0.582			
Solution consistency: 0.799			
2nd Stage Model with Proximate Condition: $\text{ETHHETERO} * TRUST * CBOCAP * TOWNHALL * PEER \rightarrow HCPOST$			
Parsimonious Solution	**Raw Coverage**	**Unique Coverage**	**Consistency**
trust *PEER*TOWNHALL	0.252	0.059	0.788
ethhetero*trust	0.454	0.155	0.825
CBOCAP*TOWNHALL	0.174	0.068	0.750
ETHHETERO*TRUST*cbocap*townhall	0.242	0.108	1.000
Solution coverage: 0.699			
Solution consistency: 0.819			
2nd Stage Model with Proximate Condition: $ethhetero * GINI * CBOCAP * TOWNHALL * PEER \rightarrow HCPOST$			
Parsimonious Solution	**Raw Coverage**	**Unique Coverage**	**Consistency**
gini*PEER	0.271	0.127	0.636
ethhetero*townhall	0.376	0.232	0.812
Solution coverage: 0.503			
Solution consistency: 0.732			

I now turn to the results of the models with the quality of school buildings as an outcome. Table 20 presents the results. This time in the first stage among the remote conditions sufficient turn out to be ethnically homogeneous populations in combination with economic inequality. This parallels the first stage

results of the model with health post as the outcome where this combination was one of the two possible outcomes. Ethnically homogeneous communities may be better able to deal with collective action problems in fundraising from local better off individuals (predominantly medium sized farmers). Here the solution with the highest coverage is a configuration of income inequality, no established CBOs and high participation rates of both types (*GINI*cbocap*PEER*TOWNHALL*). High participation rates among the sufficient conditions for better school buildings parallels the results obtained in the previous subsection. In addition, we observe the crowding out effect between informal participation and establishment of the CBOs (again, as was found using econometric models). However, participation in the town hall meeting appears to play a more important role in enhancing local outcomes with educational services.

Table 20: fsQCA results for the quality of school buildings SCHOOL

1st Stage Model with Remote Conditions: ethhetero$* gini * ethhetero \rightarrow SCHOOL$			
Parsimonious Solution	**Raw Coverage**	**Unique Coverage**	**Consistency**
ethhetero*GINI	0.309	0.309	0.799
Solution coverage: 0.309			
Solution consistency: 0.799			
2nd Stage Model with Proximate Condition: ethhetero $* GINI * CBOCAP * TOWNHALL * PEER \rightarrow SCHOOL$			
Parsimonious Solution	**Raw Coverage**	**Unique Coverage**	**Consistency**
ETHHETERO*gini*cbocap*TOWNHALL	0.175	0.146	0.948
GINI*cbocap*PEER*TOWNHALL	0.223	0.194	0.884
Solution coverage: 0.369			
Solution consistency: 0.904			

Table 21 presents the results for the models with the outcome – the quality of local water supply *WATER*. Among the proximate conditions I find ethnic homogeneity and economic inequality as separate pathways to better outcomes with the water supply. Interestingly, parallel to the results of the ordered Probit regressions I find a configuration with high capacity CBOs and low participation levels. This suggests that CBOs may exert an independent effect on water supply outcomes making informal participation irrelevant in this context. There appears to be two more pathways containing high capacity CBOs: *CBOCAP*gini* and *CBOCAP*TOWNHALL*. The former suggest that CBOs in combination with predominantly equal incomes can generate better water supply outcomes. Little income disparities are probably required for sustaining monetary contributions towards maintenance of the water supply systems. The latter pathway, as in the context of local educational services, suggests close cooperation between the CBO and local government.

In addition, there appear to be pathways that include high participation levels in combination with remote factors (i.e. *ethhetero*PEER*TOWNHALL* and *GINI*PEER*). This grants support to the hypotheses formulated among the proximate conditions. However, the second configuration indicates that income inequality in combination with high peer pressure may lead to better water supply outcomes. This may be the case if there are a higher number of better-off individuals (predominantly medium-size farmers) and active population in terms of informal participation. Persistent mental models (rooted in the Soviet era) among local inhabitants about the fact that farms should be responsible for water supply may motivate local population to exert pressure on local farmers to assist with this regard.

Table 21: fsQCA results for the quality of water supply WATER

1st Stage Model with Remote Conditions: $TRUST * ECEQUAL * ethhetero \rightarrow WATER$			
Parsimonious Solution	**Raw Coverage**	**Unique Coverage**	**Consistency**
ethhetero	0.691	0.335	0.747
GINI	0.521	0.165	0.772
Solution coverage: 0.856			
Solution consistency: 0.718			
2nd Stage Model with Proximate Condition: $\text{ethhetero} * CBOCAP * TOWNHALL * PEER \rightarrow WATER$			
Parsimonious Solution	**Raw Coverage**	**Unique Coverage**	**Consistency**
CBOCAP*peer*townhall	0.173	0.122	0.943
ethhetero*PEER*TOWNHALL	0.284	0.233	0.875
Solution coverage: 0.406			
Solution consistency: 0.889			
2nd Stage Model with Proximate Condition: $GINI * CBOCAP * TOWNHALL * PEER \rightarrow WATER$			
Parsimonious Solution	**Raw Coverage**	**Unique Coverage**	**Consistency**
GINI*cbocap*townhall	0.234	0.051	0.883
CBOCAP*gini	0.213	0.102	0.777
GINI*PEER	0.367	0.144	0.836
CBOCAP*TOWNHALL	0.192	0.041	0.790
Solution coverage: 0.642			
Solution consistency: 0.828			

The results for municipality streets maintenance (Table 22) appear to be a bit more complicated as there are more pathways to more favorable outcomes. In the first stage I find two sufficient configurations: ethnically homogeneous communities and economic equality or, surprisingly, low levels of social trust and economic inequality. The latter pathway is probably associated with those municipalities having available higher "extra budgetary" fundraising possibilities including local entrepreneurs or higher tiers of the government. Let us look at the second stage models. First of all, the solutions indicate that there

are many different ways the streets maintenance could be enhanced. The two second-stage solutions having the most coverage are *ethhetero*TOWNHALL* and *gini*TOWNHALL*peer*. This suggests that higher rates of participation in the town hall meetings in combination with either ethnic homogeneity or low income disparities and low peer pressure may bring about better outcomes in the streets maintenance. In addition, it is worth pointing out that there is also a configuration involving higher CBO capacity and participation in the town hall meetings *CBOCAP*TOWNHALL*. This configuration was found among the solutions of all the models except the one considering school buildings as the outcome.

Furthermore, I find several configurations that contradict the fsQCA hypothes: *ETHHETERO*GINI*cbocap*townhall*, *ETHHETERO*GINI*townhall*PEER*, *trust* cbocap* townhall*. However, most of them have relatively low coverages and, thus, are not important pathways to the outcome of better streets maintenance. It is probable that these results are driven by those municipalities that have some "extra-budgetary" incomes allowing dealing with street maintenance needs. It is not possible to say for sure though as I am not including the situation with local public finance among the possible sufficient factors.

Table 22: fsQCA results for the quality of local streets maintenance STR

1st Stage Model with Remote Conditions: $TRUST * gini * ethhetero \rightarrow STR$			
Parsimonious Solution	**Raw Coverage**	**Unique Coverage**	**Consistency**
ethhetero*gini	0.456	0.347	0.848
GINI*trust	0.321	0.212	0.897
Solution coverage: 0.668			
Solution consistency: 0.849			
2nd Stage Model with Proximate Condition: $\text{ethhetero} * \text{gini} * CBOCAP * TOWNHALL * PEER \rightarrow STR$			
Parsimonious Solution	**Raw Coverage**	**Unique Coverage**	**Consistency**
gini*TOWNHALL*peer	0.293	0.019	0.914
CBOCAP*TOWNHALL	0.219	0.028	1.000
gini*CBOCAP	0.228	0.092	0.925
ethhetero*TOWNHALL	0.456	0.101	0.877
ETHHETERO*GINI*cbocap*townhall	0.128	0.018	1.000
ETHHETERO*GINI*townhall*PEER	0.128	0.009	1.000
Solution coverage: 0.696			
Solution consistency: 0.894			
2nd Stage Model with Proximate Condition: $ethhetero * CBOCAP * TOWNHALL * PEER \rightarrow STR$			
Parsimonious Solution	**Raw Coverage**	**Unique Coverage**	**Consistency**
gini*TOWNHALL*peer	0.293	0.202	0.914
trust*cbocap*townhall	0.283	0.192	0.939
Solution coverage: 0.485			
Solution consistency: 0.913			

To sum up, it is, first, necessary to point out that I find solid evidence about the effect of participation on the public goods outcomes. Most of the times among the sufficient conditions appears participation in the town hall meetings *TOWNHALL* in combination with other different factors. The combination of the latter with higher CBO capacity *CBOCAP* (found in most of the models) indicates that the CBOs may facilitate participation hosted by the village council. This also points in the direction that CBOs closely cooperate with local governments in accordance with the results of the Chapter 3.

I also find evidence about the direct effect of CBOs on the public goods outcomes due to its institutional advantage. Paralleling the results of the ordered Probit models, I find that CBOs tend to improve mostly outcomes with local water supply. This suggests that CBO-based delivery of this public good may be more effective in comparison with traditional communal enterprises. Moreover, in the context of water supply and educational services I find evidence about the crowding out effect between non-electoral participation and CBO capacity. In other words, with establishment of a CBO participation is less likely to make a difference with respect to these public goods.

What is concerned the remote factors, I do not find any evidence supporting the hypothesis that social trust is a sufficient condition for better public goods outcomes. Different types of heterogeneities appear to be in a more complex relationship with the outcomes. In particular, I find solid evidence that ethnic homogeneity is one of the sufficient conditions for most of the public goods. Participation appears to have a greater effect on the public goods outcomes in the municipalities with more homogeneous populations. The effect of income disparities appears to be more context-dependent. In particular, in the context of water supply and health posts economic inequality facilitates participation in the form of peer pressure whereas for water supply and streets maintenance more equal municipalities with established high capacity CBOs appear to achieve better outcomes. For local schools there is no single pathway either as there are configurations involving equality and inequality of roughly similar coverage and consistency.

(iii) Robustness and limitations

First of all, the biggest limitation of the study is the size of the sample size of the municipalities considered. As a result, it is difficult to choose a balance between the complexity of econometric models and statistical power of the predictions. There were some alternative models that I had to reject for presentation. For instance, the best way to correct for the endogeneity bias would be estimating a system of equations where the potentially endogenous variable would be identified along the lines of the findings from Chapter 4. In that case we would have a system of 7 simultaneous equations and a 3SLS procedure would be

used. However, there are two problems with this approach. First, sufficiently large sample sizes are necessary to estimate similar systems (WOOLDRIDGE, 2002). Second, in order for the equations to be correctly identified (i.e. to be able to satisfy the order and rank conditions) I would need a sufficient amount of exogenous regressors for each equation. That is, however, precisely the problem with my data as there is not enough variables that could be used for these purposes.

Furthermore, the sample size problem limits the choice of the dependent variables. In particular, it would have been possible to use municipality-wide average residents' perceptions of the same public goods. Potentially, this could have helped with a possible bias in valuations of the public goods by the mayors who may want to present things better than they appear. However, using residents' perceptions may introduce even greater bias as some of the residents may have less objective attitudes towards some local public services due to personal frustration or similar issues. This bias could probably be corrected utilizing a bigger sample but it would introduce prohibitive costs in the data collection. Having 8 to 17 observations per municipality does not allow filtering out the bias that each respondent may have. In contrast, mayors' responses may all be biased upwards but the resulting standard errors are most likely to be correct.

It is a normal practice in the studies with the limited data to employ triangulation of data and methods (WOLF, 2010). Thus, in order to back up the results I use different dependent variables: dummies proxying for whether renovations are needed[65] for local health post (*DHCPOST*), school (*DSCHOOL*), and water supply system (*DWATER*). Descriptive statistics and related estimations could be consulted in the Appendices C.2 and C.3. Considering the nature of the dependent variables and possible correlations between the decisions to invest in either of the public goods, I run a Multivariate Probit model that is estimated with the help of Simulated Maximum Likelihood (SML). This specification is similar to the SUR models and takes account of the possible prioritization of investments in local public goods. I find that frequency of participation is positively and significantly associated with the probability of absence of the renovation needs in the water supply systems and local schools. This is largely parallel to the results obtained with the ordered Probit models with IVs. However, the peer pressure fails in exerting a significant effect in this specification. Moreover, I find that CBO dummy, as in the main models, is positively and significantly associated with the probability of no need to renovate water supply systems. Unfortunately, it is not possible to estimate facilitating effect

[65] Dummy equals one if no renovations are needed and zero – otherwise. Please, consult Appendix C.2 for further information on the origin of these variables.

of the CBOs as interaction terms cannot be included in the Multivariate Probit models with the help of the statistical software utilized. In sum, the coefficients of the estimated system suggest robustness of the results obtained in the previous subsections.

What is concerned fsQCA results it is necessary to comment on the choices I made with respect to the setup of the models. For the first stage models consistency cutoff values were chosen even more stringent (0.8) than recommended in SCHNEIDER and WAGEMANN (2006) and SCHNEIDER and WAGEMANN (2010) (0.7). For the second stage models less stringent test was chosen: only those configurations were considered for the final reduction procedure that had Y-consistency (the degree to which the conditions are in the set of the outcome) significantly greater than N-consistency (the degree to which the conditions are out of the outcome set). The alternative would be to select a cutoff consistency value as in the first stage. However, as the data appears to be quite widely distributed across the configurations this would substantially reduce the results coverage. As there is usually a trade-off between consistency and coverage (RAGIN, 2000), I attempted to optimize both.

Finally, the most "qualitative" part of fsQCA is the calibration of the fuzzy sets (RAGIN, 2007). There is no standard procedure for calibration and it heavily depends on the theoretical context of a concrete study (ibid.). In particular, it is important to be transparent about the cutoff values that define whether an observation is "out of the outcome set", "in the outcome set" or somewhere in between. Table 17 presents the calibration of each of the conditions used in the fsQCA models. To check the robustness of the results obtained using this method I use different cutoff values calibrating most of the variables. With alternative calibrations the results don't change substantially.

5.5 Conclusion

In this chapter I discussed the determinants of local governance accountability in a transitional context. In particular, it was examined to what extent the relatively novel approach of participatory governance is able to improve local public goods outcomes. The main argument is that in addition to the traditional electoral participation (which deserved significant scholarly attention) non-electoral citizens' engagement can hold local elites more accountable with respect to the governance outputs. In addition, participation seen as self-organization may result in better public goods outcomes in the situations when the returns of participation are tangible and free of uncertainty. On the other hand, CBOs may have the potential to facilitate this participation by making it more efficient. In addition, they may be able to exert an independent effect on the public goods outcomes due to the institutional advantages of non-profits

celebrated in the literature (e.g. BENNET and IOSSA, 2010; BESLEY and GHATAK, 2003, etc.). Finally, I examine the effect of the environmental factors potentially influencing the effect of participation on the public goods outcomes.

In order to test the resulting hypotheses I use the data from a survey in Ukraine described in Chapter 2 and employ triangulation of methods: ordered Probit with IVs and fsQCA. The major finding is that there is a clear empirical link between participation and local governance outcomes in a transitional setting. However, as usual, there are reservations to this result. First, participation appears to be functional in the contexts of local education and water supply maintenance. This may be due to the fact that the individuals perceive these public goods rather important and the expected returns from participation in these contexts are clear and tangible. In particular, water supply situation may be often drastically improved by investing in the sunk costs of drilling a well and constructing respective piping system. The same is the case with the building, equipment and other tangible objects related to local education. In contrast, investing community efforts in renovations of local health posts may be more uncertain as the satisfaction with the medical services also depends on issues like staffing, availability of costly medical equipment, etc. In other words, the reason I do not observe an effect of participation in other contexts is probably because these public goods are to a lesser extent in control of local communities and maintenance depends more on the funding from higher tiers of the government (this makes the benefits of participation more uncertain). Or, as is the case in many other related studies, there may be additional circumstances significantly affecting the levels of provision introducing additional noise into the models and making it impossible to single out the effect.

Furthermore, I find support for the hypothesis related to the direct effect of a CBO on the public goods outcomes due to its institutional advantage. However, the effect is observable only in the context of local water supply and waste management. In other words, having an established CBO within a municipality increases the chances of better quality water supply systems and better waste management outcomes. Local water supply is less dependent on the transfers from the higher tiers of the government and could be improved by pooling resources of the local community members. This type of cooperation may be drastically enhanced by a more formal CBO. It is yet worth pointing out that fsQCA results indicate that for a small number of municipalities higher capacity CBOs in combination with higher rates of participation in the town hall meetings are likely to bring about better outcomes in educational and street maintenance services. As a result, considering the fact that the CBOs in the sample are relatively young there may be a potential for them to make a difference for the respective public goods in the future.

I find evidence about the crowding out effect between the establishment of a CBO and the effect of non-electoral participation. In particular, with the establishment of a CBO the effect of peer pressure on local governance appears to be mitigated. This may be due to the fact that informal participation becomes less relevant for improvements in local public goods with an establishment of an active CBO. As a result, formalization of participation may mean delegation of responsibilities to the managers of a CBO.

In addition, fsQCA grants evidence that ethnic homogeneity facilitates participation. In particular, better outcomes in terms of streets maintenance and water supply are more likely to be brought about in the municipalities with higher participation rates in more ethnically homogeneous populations. On the other hand, the effect of economic inequality appears to be more complicated and context-dependent. Finally, I do not find evidence that municipality-wide levels of social trust affect governance outcomes.

What do these results imply for local development? Firstly, the study suggests that the role of participation in transition has to be better understood empirically and, thus, studies utilizing more comprehensive datasets should be carried out. However, using available data it is clear that community non-governmental institutions play an important role in local development. Development agencies should continue investing in local CBOs and oblast governments along with the central government should initiate grant programs supporting similar civic initiatives. Since the link between participation and local governance appears to still be relatively weak[66] these development efforts should pay special attention and preferably invest resources in promotion of participation and citizens' engagement. This would allow more citizens' control of the CBOs' activities and, as a result, better control of local public services delivery. In view of that, delivery efficiency could be enhanced as the services recipients are closer to the producers in the sense of Besley and Ghatak (2003, 2006).

In addition, it is important to point out the positive effect of participation and institutional advantage of the CBOs in the context of local water supply. In the light of this evidence the initiatives to establish services cooperatives specializing on water supply seem especially attractive. So far, this practice is utilized only by few development agencies.[67] I found positive and significant effects of both participation proxies and dummies for CBOs on the water supply outcomes. This suggests that both active community members and the nonprofit organizational form of a CBO have the potential to improve water supply outcomes. As a result, individuals can deal with management of monetary

[66] In the previous chapters I demonstrated that participation levels are still predominantly low in Ukraine and that establishment of a CBO is rarely a "bottom-up" process.

[67] Among the exceptions are Swiss Cooperation Bureau and partially UNDP.

contributions towards the sunk costs as well as maintenance costs in a more efficient way. Promoting this organizational form for renovation or construction of water supply systems among the rural communities has the potential to substantially improve the situation with this public good. In addition, even though the issue of local waste management still remains largely without attention the situation is becoming critical. The evidence about positive relationship between the CBO establishment and better waste management outcomes indicated that cooperative-type organizations may as well be effective in this context. Just like in the case of water supply, CBOs may help more effectively deal with community investments in trash containers as well as collection and transportation of waste.

Conclusion

This study has provided a comprehensive theoretical and empirical analysis of the salient aspects of participatory governance and CDD in the context of rural Ukraine. In the light of the recent discussion about fiscal and administrative decentralization along with the trends of community members' involvement in the governance processes this contribution sheds light on the impact of this approach and respective major challenges. To my knowledge, this is one of the very few studies that attempt to comprehensively analyze effectiveness and potential pitfalls of the participatory governance and community-driven approaches in the transitional context. Considering recent global trends of austerity measures in public budgeting along with the struggles in reforming inefficient public management systems in the transition countries, it is of an imperative importance to identify new governance paradigms that would induce more efficiency in managing public and private funds channeled to local public infrastructure.

The main contribution of this study is threefold. First, I attempt to better understand the nature of the existing TSOs in the context of fiscally constrained local governments in rural Ukraine. In particular, I test the hypothesis that local non-governmental organizations could be potentially considered extensions of local bureaucracies facilitating its fundraising efforts as opposed to the organizations that were established via "bottom-up" processes involving inhabitants' collective action, self-organization or exerting social pressure on local government. Second, the study identifies several reasons for low participation rates in rural communities, which fundamentally undermines implementation of participatory and CDD approaches to local development. Finally, I draw a bottom line by singling out the effect of participation and CBOs on local public goods outcomes.

Utilizing triangulation of methods including Probit, ordered Probit and fsQCA, I find that establishment of rural CBOs parallels village councils' efforts to fundraise from the private sources: donor agencies, entrepreneurs and local inhabitants. In other words, in the vast majority of cases local governments establish CBOs in order to be able to legally harness private funding for local development avoiding possible complication with the "Law on the Principles of Prevention and Counteraction Corruption" (2009). The data indicates that participation rates are not correlated with the probability of establishment of a CBO or with its higher capacity. This means that the CBOs cannot be seen as "bottom-up" initiatives and are most likely to be incepted by local governments possibly with

facilitation of the external development agencies. I found that capacity of local governments plays an important role in the establishment and development of the CBOs. More skilled personnel and better ability to find and process information all result in more active fundraising efforts of local village councils. In addition, there is suggestive evidence that there may be a crowding out effect between the state and private funding sources for a given municipality. If a village council (as a key local decision-maker) faces lower marginal costs of investing efforts in obtaining capital subventions from the rayon budget it may rationally make a decision not to pursue obtaining private funding and vice versa. Perceived marginal costs may depend on exogenous factors like predisposition of the rayon government to assist with local development or willingness of local donors to give.

What do these findings mean for local development practices? First, it is evident that local governments' behavior is directed towards finding ways to expand its budgetary and decision-making domain. This motivates the discussion about the possible reforms that could grant more freedom and resources to local decision-makers. Administrative decentralization reforms should not only shift the responsibilities to the local level but also grant respective decision-making powers to the village councils. And, most importantly, local governments should be in control of most of the budgetary resources generated within the municipality (collected taxes, fees, fines, etc.), which implies the need for comprehensive fiscal devolution reforms. This will pull local governments out of such activities as fundraising from the private sources via the CBOs. These secondary activities (from the local government's point of view) generate additional unnecessary transaction costs in local public goods delivery. On the other hand, involved members of local communities may have a possibility to monitor local authorities and even participate in the delivery via the CBOs. The findings of the Chapter 3 indicate that CDD programs and programs introducing elements of participatory approaches in local governance should invest more resources in awareness raising and education of the inhabitants. Institution-building initiatives are no doubt important but it is equally important to have community members that are engaged and aware of the benefits of the collective action. Already in the medium term, investments in increasing participation may pay off in higher efficiency of some public goods delivery and more sustainable local governance arrangements. But what exactly are the obstacles keeping the individuals disengaged from the community affairs?

In order to approach the question about what determines participation in transitional context of rural Ukraine I use the data from the residents' survey and run several empirical models with different proxies for participation. In particular, I look at the effect of mental models, social information and social trust.

The innovative contribution of this study is that I am looking at different types of participation separately: participation in the town hall meetings, level of general involvement in local affairs, proclivity to make one time and regular monetary contributions towards local public goods, and volunteering. This allows not only ensuring reliability of the results but also looking at the possibly contextual effects of the cognitive factors. The evidence indicates that individual decision-making to get engaged in many different activities may be largely dictated by the mental models persistent within the communities. In particular, Soviet past may have left a footprint in the population's minds with regard to the role of the communities and the government in the development process. Individuals that believe that "each citizen's involvement can move local development forward" were more likely to participate whereas the ones who did not had significantly lower participation rates. In addition, those citizens that believed that the government should be the ultimate public goods and services provider were less likely to get engaged. In addition, I find evidence that social trust improves cooperation and, thus, increases participation rates. ANDREONI and GEE (2011) suggest that social trust reduces the need for some formal mechanism that would punish the deviators in the collective action problems. Finally, I come to a surprising finding that expectations about the actions of others within the municipality do not alter the decisions to participate.

Among the implications of the findings it is again necessary to point out the need for awareness raising and educational activities. In particular, having identified predominant potentially misleading beliefs in rural communities it is important to address them in a targeted way. For instance, donor agencies' funding should not only be directed to institution-building and development project implementation but also in accompanying seminars or trainings for the local leaders and population. In addition, respective media campaigns may help dealing with potentially misleading mental models. As was pointed out before, improved participation rates as a result of these measures have the potential to substantially improve efficiency of participatory governance structures and enhance sustainability of the established CBOs.

Before drawing the final bottom line let me discuss the last chapter of this dissertation dealing with the impact participation and CBOs have made in Ukrainian rural areas so far. In particular, I was estimating the impact of participation and existence of the CBOs on different public goods along with possible facilitating effect of social trust and population heterogeneity. I found that participation exerts a distinguished effect on some public goods than on other. This is probably due to the fact that individuals tend to channel their efforts of public goods self-provision and pressuring the government for higher levels of provision in those directions with higher, more certain and tangible expected returns.

As a result, I observe an especially distinct link between all types of participation and the outcomes of water supply and local education. In addition, the proxy of participation associated with self-provision appears to be an important condition for better streets maintenance. The rest of the public goods may be to a lesser degree in control of local communities as they may be subject to many more national and regional rules and regulations.

It is also important to point out that I find a direct effect of CBO existence only on the outcomes of water supply and waste management. This means that the institutional form of rural TSOs may be more suitable for these public goods in contrast to wide-spread largely ineffective communal enterprises. Direct involvement of the service recipients in organization's management may be the key to its success. This allows ensuring better accountability between the recipients and providers of the public services. As a result, it may be highly beneficial to promote establishment of the service cooperatives – non-profit non-governmental organizations focusing on public services provision. In particular, service cooperatives due to their nonprofit and non-governmental nature have the potential to more effectively deal with sunk and maintenance costs of the public goods and to provide a platform for democratic involvement of the inhabitants. The latter may ensure that the incentives of the recipients are aligned with the providers resulting in better preferences targeting. More generally, service cooperative provision may be relevant also in the contexts of other public services and, thus, considering the young age of the CBOs in the sample, it would be beneficial to carry out a similar study sometime in the future. Finally, I find evidence that an established CBO reduces the effect of informal participation on the outcomes of water supply. Informal participation may become less relevant with existing CBO within a given community.

Designing development interventions that involve participatory governance elements it may also be important to consider the community features that may affect the link between participation and development outcomes. In particular, I find that the combination of higher participation rates and more ethnically homogeneous population may be sufficient conditions for better outcomes with water supply and streets maintenance. The evidence with respect to the effects of income disparities and social trust is mixed. In sum, considering existing substantial evidence about negative effects of ethnic heterogeneity development practitioners should take serious account of the communities' ethnic composition.

To sum up, it is important to underline that this study is not a comprehensive evaluation of participatory and CDD approaches. It is just a mere attempt to identify some salient challenging knowledge gaps in the literature and address them with the help of a recent data collected in Ukraine. Looking at the broader picture of governance structure in Ukraine in the light of the results obtained

within this study it is necessary to briefly comment on the current discussion of the decentralization reforms. Even though Ukrainian Government is under pressure from the side of IMF and the World Bank who promote fiscal devolution and administrative decentralization, there are also increasing tendencies towards that direction from the side of the village and city councils. Local governments, responding to the local demands in public goods, are forced to seek additional funding apart from scarce equalization transfers and capital subventions. The findings of the Chapter 3 indicate that the village councils incorporate CBOs in their fiscal strategies and, thus, expand fundraising opportunities. Because of the connection between concentration of the budget resources in the higher tiers of the government and corruption, political steps towards fiscal devolution may be rather unpopular. However, with increasing pressures of local communities and international donor agencies this task is likely to be resolvable in the nearest future. Comprehensive reforms will give local governments necessary tools and freedoms for local development as opposed to the current situation closely resembling the Soviet "Matryoshka" system – hierarchically subordinated "government within government". The latter in combination with corruption results in a situation when the municipalities with smaller tax revenue-raising potential subsidize the more well-off municipalities. In any case, one can expect these reforms to be implemented in the long term. But what should the development community undertake in the short and medium run?

Until comprehensive reforms are implemented rural TSOs may indeed improve fundraising possibilities for the local government as it can legally harness the funding from local population, entrepreneurs and donor agencies. However, international practice is to establish these organizations in order to harness the energy of the community members' participation. As I find no link between the existing organizations and participation in rural Ukrainian areas, the development agencies promoting CDD should invest more resources in the activities that promote participation and engagement in the co-management of the CBOs. On the other hand, it may be worth promoting establishment of different types of CBOs. In particular, this study suggests that service cooperatives may be specifically suitable for maintenance of water supply systems. This, however, does not exclude other "specific issue-based" organizations or more general ones that may have a mission of moving local development forward (more along the lines of the donor agencies' idea of the aims of the CBOs establishment).

In general, it is desirable that CDD and participatory governance approaches are adopted by the government. As opposed to traditional capital subsidies well-designed clear and transparent state grant programs may not only improve local situation with capital investments in public goods but foster participation and sustainability in local governance.

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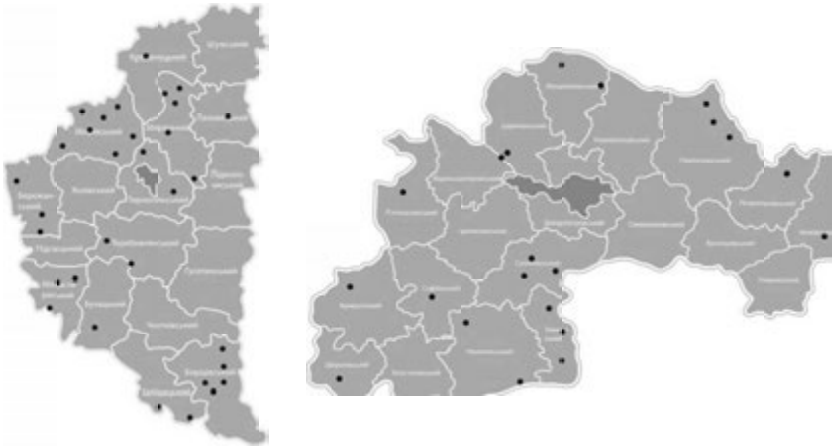
APPENDIX A: SAMPLING

Figure A.1: Map of the selected oblasts

Source: Own elaboration based on the map of Economist Intelligence Unit.

Figure A.2: Spatial distribution of the sampling units in the target oblasts



Source: Own elaboration based on the map of Creative Commons.

Note: The images may be not to scale relative to each other.

Table A.3: Sampling quotas for each municipality and village

No.	Rayon	Village Council	Village	Population	Sampling Quota
1.	Ternompilskyy	Chernelevo-Ruska		**1417**	**12**
			Chernelevo-Ruskyy	771	7
			Zshovtneve	646	6
2.	Ternompilskyy	Ivechevodolishnenska		**766**	**9**
			Ivachiv Dolishniy	505	6
			Ivachiv Gorishniy	261	3
3.	Terebovlyanskyy	Khmelivska		**1328**	**12**
			Khmelivka	586	6
			Stara Brykulia	442	4
			Nova Brykulia	300	3
4.	Terebovlyanskyy	Malovodivska		**275**	**8**
			Malovody	275	8
5.	Pidhayetskyy	Bokivska		**462**	**8**
			Bokiv	462	8
6.	Monastyrskyy	Oleshivska		**614**	**9**
			Olesha	363	6
			Savelivka	251	4
7.	Monastyrskyy	Dobrovodivska		**726**	**9**
			Dobrovody	726	9
8.	Monastyrskyy	Vistrianska		**1050**	**11**
			Vistia	1050	11
9.	Lanvetskyy	Velykokuskovetska		**732**	**9**
			Velyki Kuskivtsi	732	9
10.	Kremenetskyy	Dunayivetska		**1729**	**13**
			Dunayiv	515	4
			Bogdanivka	416	4
			Kulykiv	406	3
			Savchytsi	392	3
11.	Zborivskyy	Trostianetska		**462**	**8**
			Trostianets	227	4
			Bilokrynytsia	235	4
12.	Zborivskyy	Perepylnytska		**546**	**8**
			Perepylnyky	546	8
13.	Zborivskyy	Oliyivska		**778**	**9**
			Oliyiv	778	9
14.	Zborivskyy	Nesterivska		**404**	**8**
			Nesterivka	404	8
15.	Zborivskyy	Mshanetska		**1343**	**12**
			Mshanets	728	7
			Ditkivtsi	419	4
			Khomivka	196	2
16.	Zborivskyy	Hodivska		**850**	**10**
			Hodiv	715	9
			Yosypivka	117	2
			Tsetsivka	18	1
17.	Zborivskyy	Berymivska		**508**	**8**
			Berymivtsi	377	6
			Kudynivtsi	131	2

18.	Zbarazkyy	Shymkovetska		**1240**	**11**
			Shymkivtsi	776	7
			Reshnivka	464	5
19.	Zbaraskyy	Lozivska		**1443**	**12**
			Lozy	664	6
			Kryvychky	779	6
20.	Zbarazkyy	Kydanetska		**888**	**10**
			Kydantsi	888	10
21.	Zbarazkyy	Butynska		**608**	**9**
			Butyn	608	9
22.	Zbarazkyy	Bodakivska		**1148**	**11**
			Bodaky	1148	11
23.	Zalishchitskyy	Synkivska		**778**	**9**
			Synkiv	778	9
24.	Zalishchitskyy	Zelenohayska		**1103**	**11**
			Zelenyy Hay	592	6
			Pechorna	511	6
25.	Buchatskyy	Ripynetska		**1141**	**11**
			Ripyntsi	624	6
			Pomirtsi	517	6
26.	Borshchivskyy	Sapohivska		**876**	**10**
			Sapohiv	876	10
27.	Borshchivskyy	Mushkativska		**2034**	**14**
			Mushkativka	1166	8
			Slobidka-Mushkativska	868	6
28.	Borshchivskyy	Losiatska		**1252**	**11**
			Losiach	1252	11
29.	Borshchivskyy	Korolivska		**1096**	**11**
			Korolivka	1096	11
30.	Borshchivskyy	Vovkovetska		**1316**	**12**
			Vovkivtsi	1316	12
31.	Berezshanskyy	Zshovnivska		**469**	**8**
			Zshovnivka	469	8
32.	Berezshanskyy	Bozshykivska		**1323**	**12**
			Bozshykiv	670	6
			Voloshchyna	410	4
			Kvitkove	243	3
33.	Berezshanskyy	Rohachynska		**1419**	**12**
			Rohachyn	886	8
			Volytsia	533	5
34.	Tomakivskyy	Vyvodivska		**1365**	**10**
			Vyvodove	524	4
			Hlukhe	183	2
			Dolynske	304	3
			Zshmeryne	48	1
			Nyvyy Myr	73	1
			Novopavlivka	38	1
			Striukivka	195	2
35.	Solonianskyy	Shyrochanska		**1386**	**10**
			Shyroke	717	6
			Trytuzne	476	4
			Shestypillia	145	1
			Radianske	48	1

36.	Nikopolskyy	Prydniprovska		**5613**	**14**
			Prydniprovske	2443	6
			Kamyanske	2563	7
			Musiyivka	607	2
37.	Tomakivskyy	Mykhaylivska		**789**	**9**
			Mykhaylivka	422	5
			Harbuzivka	184	2
			Novokatioshyno	156	2
			Chayky	27	1
38.	Tomakivskyy	Preobrazshenska		**1441**	**10**
			Preobrazshenka	1344	10
			Barkove	97	1
39.	Shyrokivskyy	Mykolayivska		**3166**	**13**
			Karpivka	943	4
			Vyshneve	241	1
			Zelenyy Hay	263	1
			Rozivka	169	1
			Tykhyy Stav	578	3
			Tsvitkove	214	1
			Shyroka Dacha	708	3
			Mykolayivka	50	1
40.	Solonyanskyy	Pysmechivska		**1060**	**10**
			Pysmecheve	475	5
			Bezborodkove	326	3
			Pshenychne	115	1
			Krute	83	1
			Starodniprovske	61	1
41.	Solonyanskyy	Pavlivska		**920**	**9**
			Pavlivka	544	6
			Voykove	99	1
			Myrne	33	1
			Propashne	244	3
42.	Solonyanskyy	Oleksandropilska		**2599**	**17**
			Oleksandropil	910	5
			Butovynivka	116	1
			Vilenka	82	1
			Harkushyne	58	1
			Krynychky	241	2
			Mykhaylivka	164	1
			Novoandriyivka	109	1
			Petrykivka	818	4
			Tykhe	84	1
43.	Pyatykhatskyy	Sayivska		**1971**	**11**
			Sayivka	1016	6
			Dolynske	870	5
			Ternuvate	85	1
44.	Nikopolskyy	Pavlopilska		**1401**	**10**
			Pavlopillia	890	7
			Pryyut	88	1
			Zvizda	100	1
			Vodiane	73	1
			Shyshkyne	126	1
			Ivanivka	65	1
			Marynopil	59	1

45.	Yuryyivskyy	Novovyazivska		**2174**	**12**
			Novovyazivske	1613	9
			Vodiane	500	3
			Zarichne	34	1
46.	Yuryyivskyy	Zshemchuzshynska		**749**	**9**
			Zshemchuzshne	483	6
			Kindrativka	139	2
			Vasylivka	100	2
47.	Petropavlivskyy	Troyitska		**1435**	**10**
			Troyitske	1435	10
48.	Petrykivskyy	Chaplynska		**2524**	**13**
			Chaplynka	2524	13
49.	Petrykivskyy	Khutirska		**2032**	**12**
			Khutirske	2032	12
50.	Mezshivskyy	Preobrazshenska		**831**	**9**
			Preobrazshenka	475	6
			Vsesviatske	190	2
			Novotroyitske	166	2
51.	Magdalynivskyy	Maryivska		**620**	**8**
			Maryivka	557	8
			Trudoliubivka	27	1
			Olianivka	23	1
52.	Magdalynivskyy	Zaplavska		**1400**	**10**
			Zaplavka	510	4
			Kremenivka	150	1
			Mynivka	630	5
			Kranopillia	110	1
53.	Sofiyivskyy	Novooleksiyivska		**198**	**8**
			Novooleksiyivka	198	8
54.	Kryvorizkyy	Nedayvodska		**1447**	**10**
			Nedayvoda	1171	9
			Ternuvatka	167	2
			Zoria	108	1

APPENDIX B: DESCRIPTIVE STATISTICS

Table B.1: Variables used in Chapter 3

Variable	Comments	Code in the Questionnaire
CBO	A dummy for existence of a CBO within a municipality (CBO=1 if there is a CBO; CBO=0 otherwise)	MV61
CAPCBO	Constructed from 2 questions based on 1 to 4 Likert scale (extent of cooperation with other donors and other organizations) and 2 questions based on 1 to 5 Likert scale (degree of involvement of entrepreneurs' and inhabitants' funding) $CAPCBO_j = (CV18.c_j + CV26.b_j)/2 + (CV20.b_j + CV20.c_j)/2$ for jth municipality.[68]	CV18.c; CV26.b; CV20.b; CV20.c
CAPVC	An index that sums a number of part-time and full-time personnel and respectively allocated PCs	MV11
SUBSIDIES	Predictability of capital subventions from the point of mayor's view (1 to 4 Likert scale)	MV17.b
EQTRANS	Predictability of equalization transfers from the point of mayors' view (1 to 4 Likert scale)	MV17.a
AUTONOMY	The degree to which local budget was filled by the entrepreneurs (1 to 4 Likert scale)	MV22.b
FUNDBUSINESS	The degree to which local businesses have contributed to the local development during the last 2 years from the mayors' point of view (1 to 4 Likert scale)	MV22.c
FUNDPOP	Municipality-wide average individual perceptions about the community's proclivity to make regular financial contributions (1 to 5 Likert scale)	RV13.a
PEER	Municipality-wide average individual willingness to exert peer pressure on non-contributors (based on a hypothetical situation presented to the respondents and 1 to 10 Likert scale)	RV12.b
INVOLVE	Municipality-wide average individual degree of involvement in local affairs (1 to 10 Likert scale)	RV15
TRUST	Index for the level of social trust within a municipality $TRUST_j = \left[\left(\sum_{ij} RV9.a_{ij} / k_j\right) + \left(\sum_{ij} RV9.b_{ij} / k_j\right)\right] / 2$ where k_j is the number of respondents in jth municipality.	RV9.a; RV9.b

[68] Please, note that the contribution of the survey with the CBO leaders is relatively minor in comparison with the survey with the residents and mayors. Thus, I do not include the questionnaire for the CBO leaders in the Appendices due to space limitations. It is, however, available on request.

PGINDEX	Index for the quality of municipality-wide public goods provision excluding healthcare, education, and water supply $$PGINDEX_j = \sum_{ij} \left(RV23.a_{ij} + \cdots + RV23.h_{ij}\right) \Big/ 8k_j$$ with 8 different public goods and k_j is the number of respondents in jth municipality.	RV9.a;…iRV9.h
POP	Municipality population in 2011.	Source: UkrStat
#VIL	Number of villages within a municipality.	Source: UkrStat
DIST	Distance to the nearest capital of rayon/oblast.	Source: Own calculations
TOWNHALL	Municipality-wide average frequency of participation in the town hall meetings (1 to 5 Likert scale).	RV8.b
ATTITUDE	Municipality-wide average attitudes towards people of different nationalities, cultures and religions (1 to 4 Likert scale).	RV22.a
GINI	Income-based Gini coefficient.	RV50.2

Table B.2: Variables used in Chapter 4

Variable	Comments	Code in the Questionnaire
TOWNHALL	Frequency of respondent's participation in the municipality's town hall meetings (1 to 5 Likert scale).	RV8.b
GENINV	Self-declared level of involvement in municipality's affairs (1 to 10 Likert scale).	RV15
1MONCONT	Binary variable accounting for whether respondent had made a 1-time financial contribution within a municipality (1-yes; 0-no).	RV18.a
MONCONT	Binary variable accounting for whether respondent had made regular financial contributions within a municipality (1-yes; 0-no).	RV18.b
VOLUNT1	Binary variable accounting for whether respondent had made an in-kind contribution within a municipality (1-yes; 0-no).	RV18.c
VOLUNT2	Amount of times respondent volunteered for a community cause in 2011.	RV21.b
COMROLE	Proxy for a mental model about the role of the communities (1 to 5 Likert scale).	RV19.a
GOVROLE	Proxy for a mental model about the role of the government (1 to 5 Likert scale).	RV19.b
TRUST1	Proxy for generalized social trust (1 to 10 Likert scale).	RV9.a
TRUST2	Alternative proxy for social trust drawn from a hypothetical situation presented to the respondents (1 to 10 Likert scale).	RV12.a
TRUSTVC	Proxy for respondent's trust towards the village council (1 to 5 Likert scale).	RV11.2

EXP1MONCONT	Individual perception of how difficult it is to mobilize the community for 1-time financial contribution (1 to 5 Likert scale).	RV13.b
EXPMONCONT	Individual perception of how difficult it is to mobilize the community for regular financial contribution (1 to 5 Likert scale).	RV13.a
EXPVOLUNT	Individual perception of how difficult it is to mobilize the community for volunteering (1 to 5 Likert scale).	RV13.d
EXPMEETINGS	Individual perception of how difficult it is to mobilize the community for regular town hall meetings (1 to 5 Likert scale).	RV13.c
ORGMEM	Dummy for a membership in a CBO.	RV16
STRCOMMEM	Dummy for a membership in a street committee.	RV16
SEX	Dummy for respondent's sex.	-
AGE	Respondent's age.	RV1
EDUCATION	Index for respondent's education (1 to 6 scale).	RV48
INCOME	Respondent's income in UAH.	RV50.2
ASSESTS	Index for acquired assets in respondent's household.	RV50.6.1-RV50.6.6
SUBSIDIES	Predictability of subsidies for the next fiscal year (1to 4 Likert scale).	MV17.b
FUNDBUSINESS	The degree to which local business has contributed financially to local development during last two years.	MV22.c
CHILDREN	Amount of children, grand- or grand-grand-children living in the respondent's household.	RV65.b
MAININC	Dummy for the main income contributor in the household (1 – yes; 0 – no) .	RV67.1
SELFEMP	Dummy for self-employment (1 – yes; 0 – no).	RV45.b
POLPARTY	Dummy for political party membership (1 – member of any political party; 0 – no).	RV51
VILPOP	Average village population within the municipality.	Source: UkrStat

Table B.3: Variables used in Chapter 5

Variable	Comments	Code in the Questionnaire
SCHOOL	Mayors' valuation of the municipality's school building	MV48.a
HCPOST	Mayors' valuation of the municipality's health-post	MV38.f
WATER	Mayors' valuation of the access to water within the municipality	MV56.a
STR	Mayors' valuation of cleanness of local streets	MV34.e
WASTE	Mayors' valuation of organization of waste management within the municipality	MV34.d
CBO	Dummy for CBO existence within a municipality.	MV61
TOWNHALL	Average municipality-wide frequency of participation in the town hall meetings (1 to 5 scale).	RV8.b
PEER	Average municipality-wide readiness to exert peer pressure on deviators (1 to 10 scale)	RV12.b
GINI	Income-based GINI coefficient	RV50.2
AGINI	Asset-based GINI coefficient	RV50.6.1-RV50.6.6
ECHETERO	Average municipality perceptions about local differences in incomes (1 to 4 Likert scale)	RV22.d
ETHHETERO	Index for ethnic heterogeneity within a municipality (number of different ethnicities accounted for by the mayor)	MV25
MENTAL	Average municipality-wide agreement with the statement "Providing well-being for the community is solely responsibility of the government" (1 to 4 Likert scale).	RV19.b
FUNDBUSINESS	The degree to which local business has contributed financially to local development during last two years	MV22.c
SUBSIDIES	Predictability of subsidies for the next fiscal year (1 – not predictable at all; 4 – very predictable)	MV17.b
TRUST	Average social trust within the municipality $$TRUST_j = \left[\left(\sum_{ij} RV9.a_{ij} \Big/ k_j\right) + \left(\sum_{ij} RV9.b_{ij} \Big/ k_j\right)\right] \Big/ 2$$	RV9.a; RV9.b
EXTFUND	Dummy for an extraordinary budget revenue contributor (1 – yes; 0 – no)	Own calculations
POP	Municipality's population	UkrStat
#VIL	Number of villages within a municipality	UkrStat
DIST	Distance to the nearest town (at least rayon center)	Own calculations
PARTY	Dummy for mayor's membership in the ruling party	MV3
DEPMEET	Amount of times village council deputies meet to discuss current issues	MV7

Table B.4: Construction of the dummies for regional controls in small samples

Region No.	Clustered Rayons (NUTS3)	Village Councils
1.	Zbrazkyy, Terebovlyanskyy, Ternopilskyy	Kydantsivska, Bodakivska, Butynska, Malovodska, Khmelivska, Lozivska, Ivachevodolishnenska, Shymkovetska, Chernelevo-Ruska.
2.	Shyrokivskyy, Pyatykhatskyy, Kryvorizkyy, Sofiyivskyy	Mykolayivska, Sayivska, Nedayvodska, Novooleksiyivska.
3.	Nikopolskyy, Solonyanskyy, Tomakivskyy	Prydniprovska, Shyrochanska, Preobrazshenska, Mykhaylivska, Vyvodivska, Pysmechivska, Pavlopilska, Oleksandropilska.
4.	Petropavlivskyy, Petrykivskyy, Magdalynivskyy	Troyitska, Chaplynska, Zaplavska, Khytirska, Maryivska.
5.	Yuryivskyy, Mezshivskyy.	Verbuvativska, Zshemchuzshenska, Preobrazshenska, Novovyazivska.
6.	Zborivskyy	Perepylnytska, Berymivetska, Trostyanetska, Oliivska, Hodivska, Mshanetska, Nesterivska.
7.	Lanovetskyy, Kremenetskyy	Velykokuskivetska, Dunaivska.
8.	Berezshanskyy, Pidhayetskyy, Buchatskyy, Monastyrskyy	Zshovnivska, Bozshykivska, Bokivska, Ripynetska, Vistrianska, Dobrovodivska, Oleshivska, Rohachynska.
9.	Borschivskyy, Zalischitskyy	Sapohivska, Korolivska, Zelenohayska, Losiatska, Mushkativska, Synkivska, Vovkovetska.

APPENDIX C: AUXILIARY ESTIMATIONS

Table C.1: IV Probit estimations for Chapter 3

Independent variables	IV Probit	1st Stage, FUNDBUSINESS	1st Stage, FUNDPOP
FUNDBUSINESS	3.265*		
	(0.085)		
FUNDPOP	13.003*		
	(0.084)		
SUBSIDIES	0.964	0.048	0.000
	(0.367)	(0.790)	(0.997)
AUTONOMY	-1.462	0.462***	0.004
	(0.124)	(0.000)	(0.910)
EQTRANS	-1.390	0.027	0.013
	(0.182)	(0.844)	(0.798)
PGINDEX	-7.639	1.094***	0.252
	(0.101)	(0.009)	(0.100)
CAPVC	0.194	0.051*	0.011
	(0.745)	(0.630)	(0.794)
TRUST	-1.976	0.073*	0.115*
	(0.122)	(0.625)	(0.051)
PEER	-0.037	0.048**	-0.064
	(0.955)	(0.686)	(0.167)
INVOLVE	-0.317	-0.333**	0.072
	(0.670)	(0.021)	(0.175)
POP	0.005*	-0.000**	-0.000*
	(0.084)	(0.022)	(0.051)
TOWNHALL		-0.861***	0.149*
		(0.001)	(0.085)
ATTITUDE		1.825***	-0.297
		(0.007)	(0.229)
GINI		2.141	1.343*
		(0.271)	(0.074)
Constant	-6.608	-4.165	1.127
	(0.474)	(0.112)	(0.253)
R^2		0.795	0.619
Test for exogeneity		0.087	

Notes: * Significant at 0.1; ** Significant at 0.05; *** Significant at 0.01. P-values are reported in parentheses. Coefficients of the regional controls along with the variables #VIL, DIST are not reported due to space considerations.

Table C.2: Descriptive statistics for Chapter 5

Variable	Description	Mean	Std. Dev.
Dependent variable		0.28	0.45
DSCHOOL	Dummy accounting for whether local school needs renovation (DSCHOOL – no renovation needed; question V35)		
DHCPOST	Dummy accounting for whether health post needs renovation (DHCPOST – no renovation needed; question V35)	0.24	0.43
DWATER	Dummy accounting for whether water supply system needs renovation (DWATER – no renovation needed; question V35)	0.46	0.50

Table C.3: Estimation of Multivariate Probit model for Chapter 5

	Dependent variables		
Independent variable	DWATER	DSCHOOL	DHCPOST
CBO	0.990**	-0.629	-0.296
	(0.024)	(0.277)	(0.480)
PEER	0.222	-0.181	-0.139
	(0.185)	(0.423)	(0.406)
TOWNHALL	0.840**	1.608***	-0.066
	(0.021)	(0.008)	(0.877)
FUNDBUSINESS	0.020	0.662**	0.070
	(0.922)	(0.018)	(0.755)
SUBSIDIES	-0.302	0.596**	0.133
	(0.169)	(0.023)	(0.590)
TRUST	-0.211	-0.375	-0.552***
	(0.300)	(0.202)	(0.002)
POP	-0.000	0.001	0.000
	(0.790)	(0.179)	(0.916)
DEPMEET	0.043	0.090**	0.042
	(0.125)	(0.031)	(0.187)
DIST	0.015	0.079***	0.031
	(0.416)	(0.001)	(0.129)
#VIL	-0.242	-0.313*	-0.032
	(0.153)	(0.072)	(0.804)
PARTY	-0.458	-0.106	0.205
	(0.419)	(0.898)	(0.683)
Constant	-2.580	-8.124**	2.637
	(0.284)	(0.015)	(0.217)
Wald test: p-value	0.000	0.000	0.000

Notes: * Significant at 0.1; ** Significant at 0.05; *** Significant at 0.01. P-values are reported in parentheses. Number of iterations is 100 in order to deal with a small sample size problem.

Table C.4: Estimation of the SUR model for Chapter 5

Here I present the estimations of the SUR and SUR with IVs models. Following GREENE (2012), the general idea of the model is to estimate a system with k equations:

$$y_k = X_k\beta_k + \varepsilon_k$$

with correlated error terms:

$$\varepsilon = (\varepsilon_1', \varepsilon_2', \dots, \varepsilon_M')$$
$$E(\varepsilon|X_1, X_2, \dots, X_M) = 0$$
$$E(\varepsilon\varepsilon'|X_1, X_2, \dots, X_M) = \Omega$$

Using the data described in Chapter 5 I attempt to estimate the following basic system of 5 equations for each public good under consideration:

$$Y_{i1} = \beta_{01} + \beta_{11}P_i + \beta_{21}C_i + \beta_{31}Z_i + \varepsilon_i$$
$$Y_{i2} = \beta_{02} + \beta_{12}P_i + \beta_{22}C_i + \beta_{32}Z_i + \varepsilon_i$$
$$\dots$$
$$Y_{i5} = \beta_{05} + \beta_{15}P_i + \beta_{25}C_i + \beta_{35}Z_i + \varepsilon_i$$

Where Y_{ik} is a vector of proxies accounting for different public goods outcomes; P_i is a vector of the participation proxies; C_i represents a dummy for establishment of a CBO within the municipality; Z_i is a vector of the control variables; and ε_i – a disturbance term. Simple SUR model can be estimated using the available sample with 54 observations. Following GRIFFITHS et al. (2001) having 22 regressors in each equation by far satisfies their sample size requirement for multivariate systems with the same amount of regressors:

$$T \geq M + k^*$$

where *T* is the number of observations; *M* is the amount of equations in the system and k^* is the maximum number of regressors across the system's equations. Following this requirement it would be possible to estimate the system with already 27 observations utilizing two-stage feasible generalized least-squares (FGSL) algorithm described by GREENE (2012):

In order to control for potential endogeneity of participation proxies I also run SUR model with IVs. However, here I draw the reader's attention to the fact that because this model is estimated using ML procedure current specification fails to meet GRIFFITHS' et al. (2001) sample size requirements. Even though the results obtained with the SUR with IVs model may be biased due to the small sample problem the estimates may still provide a good idea about the underlying relationships. After all, the results of the simple SUR model may be biased too as the dependent variables in each of the equations of the system are based on 4-point Likert scale (calling for using ordered Probit models).

Please, note that the results of both models with just a few exceptions largely parallel the results presented in the Sub-section 5.4.i and Table 18.

Independent variables	HCPOST		SCHOOL		WATER		STR		WASTE	
	SUR	IV SUR	SUR	IV SUR	SUR	IV SUR	SUR	IV SUR	SUR	IV SUR
CBO	0.266	-0.776	-0.524	-2.309	4.613**	4.906**	1.484	0.199	2.287	2.288
	(0.914)	(0.765)	(0.821)	(0.311)	(0.017)	(0.016)	(0.349)	(0.904)	(0.232)	(0.265)
PEER	0.034	0.554	0.269*	1.051*	0.649***	0.706**	-0.049	0.391	-0.035	0.150
	(0.842)	(0.235)	(0.094)	(0.064)	(0.000)	(0.025)	(0.656)	(0.226)	(0.793)	(0.704)
TOWNHALL	-0.159	1.429	0.511	2.459*	0.860***	1.862**	-0.232	0.289	-0.160	1.169
	(0.701)	(0.223)	(0.189)	(0.073)	(0.008)	(0.021)	(0.384)	(0.712)	(0.618)	(0.224)
FUNDBUSINESS	-0.109	0.286	0.316**	0.808**	-0.146	0.086	-0.129	0.016	-0.227*	0.088
	(0.516)	(0.391)	(0.045)	(0.038)	(0.258)	(0.702)	(0.229)	(0.942)	(0.080)	(0.735)
SUBSIDIES	0.118	0.274	0.057	0.370	0.202	0.071	-0.040	0.238	0.186	0.104
	(0.589)	(0.519)	(0.780)	(0.458)	(0.232)	(0.814)	(0.773)	(0.424)	(0.272)	(0.781)
TRUST	-0.031	-0.206	-0.193	-0.457*	-0.054	-0.072	0.087	-0.063	0.010	-0.051
	(0.847)	(0.390)	(0.195)	(0.093)	(0.660)	(0.666)	(0.394)	(0.687)	(0.937)	(0.786)
POP	0.000	0.001*	0.001***	0.001***	0.000*	0.000*	0.000	0.000	0.000**	0.001**
	(0.122)	(0.051)	(0.007)	(0.008)	(0.072)	(0.078)	(0.562)	(0.185)	(0.019)	(0.026)
DEPMEET	0.059***	0.115***	0.023	0.099**	0.011	0.034	0.011	0.042	0.007	0.042
	(0.009)	(0.006)	(0.266)	(0.039)	(0.521)	(0.233)	(0.446)	(0.122)	(0.704)	(0.188)
DIST	0.013	0.040	0.024	0.059**	0.019	0.031*	-0.012	0.002	-0.006	0.013
	(0.410)	(0.103)	(0.105)	(0.031)	(0.119)	(0.062)	(0.246)	(0.905)	(0.625)	(0.490)
#VIL	-0.160	-0.208	0.059	-0.017	0.088	0.090	0.124*	0.077	-0.142*	-0.153
	(0.121)	(0.130)	(0.544)	(0.911)	(0.268)	(0.341)	(0.061)	(0.385)	(0.076)	(0.145)
PARTY	-0.798	1.582	0.233	3.595	0.133	0.804	-1.837**	-0.234	1.510*	2.737*
	(0.498)	(0.441)	(0.832)	(0.125)	(0.884)	(0.567)	(0.016)	(0.861)	(0.098)	(0.086)
CBO*TOWNHALL	0.158	0.290	0.283	0.514	-0.289	-0.334	-0.181	-0.010	-0.407	-0.414
	(0.771)	(0.586)	(0.576)	(0.271)	(0.490)	(0.431)	(0.602)	(0.976)	(0.331)	(0.328)
CBO*PEER	-0.199	-0.065	-0.178	0.057	-0.595***	-0.643***	-0.137	0.038	-0.196	-0.206
	(0.462)	(0.824)	(0.483)	(0.824)	(0.005)	(0.006)	(0.428)	(0.842)	(0.348)	(0.383)
Constant	2.743	-7.099	-0.919	-13.816*	-3.667**	-8.331**	4.004***	-0.760	1.747	-5.064
	(0.230)	(0.253)	(0.667)	(0.053)	(0.039)	(0.048)	(0.007)	(0.851)	(0.322)	(0.292)
R^2	0.281	[a]	0.407	[a]	0.521	[a]	0.403	[a]	0.433	[a]
N	54	54	54	54	54	54	54	54	54	54

Notes: * Significant at 0.1; ** Significant at 0.05; *** Significant at 0.01. Regional controls were implemented with a help of regional dummy variables and are not reported due to space limitations. a Please note that R2 does not have a statistical meaning in IV SUR estimation and, thus, is not reported.

APPENDIX D: MAYORS' QUESTIONNAIRE

Please, note the cards used during the interviewing process were designed to illustrate the scales portrayed in the questionnaire.

IAMO
LEIBNIZ INSTITUTE OF AGRICULTURAL DEVELOPMENT IN CENTRAL AND EASTERN EUROPE

Questionnaire on Community Governance

_____ oblast, _____ village council

Date_____

Interviewer: _____

Interview time: begin_____ end_____

Mayor _____

№ of Questionnaire_____

A. Screening

MV1. Which year did you start working as the mayor?	
MV2. How many years have you lived in this community?	
MV3. Are you a member of some political party? If yes, which one?	

B. Main Questionnaire

B.I Access to Information

MV4.	a. Approximately how many times a month do you travel to rayon center in business?		
	b. How many times a month do you travel to oblast center in business?		
MV5.	Do you have access to Internet for the work related to you position? IF NO GO TO QUESTION V5.c.	1. Yes	2. No
	a. How many times a week you use Internet?		
	b. Do you use email for communication with rayon and oblast councils and administratons?	1. Yes	2. No
	c. Please, estimate your knowledge of computer and Internet using a scale where "1' means "absolute beginner and "10" – "experienced user". SHOW CARD 1		

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Absolute beginner									Experienced user
1	2	3	4	5	6	7	8	9	10

MV6. What percentage of the municipality's population has access to Internet?	
MV7. How often do village council's deputies meet for discussions of the current issues?	

MV8. Please, estimate how informed are the inhabitants of the municipality about local issues and development.
SHOW CARD 15

Not informed at all	1	2	3	4	5	6	7	8	9	10	Very informed

MV9. Please, indicate how active municipality's inhabitants are in participation/engagement in resolving local issues. Using a scale where "1" means "Not active at all" and "10" – "Very active", please, chose a corresponding digit.
SHOW CARD 8

Not active at all	1	2	3	4	5	6	7	8	9	10	Very active

MV10. Does the village council provide stands with announcements and currert information for the municipality's inhabitants?	1. – Yes	2. – No
a. Is there such a stand near the council's building?	1. – Yes	2. – No
b. Are there such stands in other parts of the municipality (other villages)?	1. – Yes	2. – No
IF NO GO TO V11		
How many?		

B.II Capacity of the village council and financial questions

MV11. Please, list all the personnel of the village council indicating the amount employed full-time and part-time; and also the corresponding amount of computers provided for a given position.

№	Position	Amount employed full-time	Amount employed part-time	Amount of computers
1.	Mayor			

2.	Deputy mayor			
3.	Secretary			
4.	Accountant			
5.	Specialists			
6.	Assistants			
7.				
8.				
9.				
10.				

MV12. How would you evaluate the qualty of working conditions in the village council in general? Using a scale where "1" means "Very bad conditions" and "10" – "Very good conditions", please, choose relevant digit.
SHOW CARD 16

Very bad conditions									**Very good conditions**
1	2	3	4	5	6	7	8	9	10

MV13. Is this village council "dotational"? 1.Yes 2. No

MV14. Please, indicate general income and expenditures from general and specialized funds.
PROVIDE SHEET 2

	2010	**2011**
Transaction	**Sum, UAH**	**Sum, UAH**
Income of the general fund		
Income of the specialized fund		
Expenditures of the general fund		
Expenditures of specialized fund		

MV15. Please, indicate the totals of the following income articles in 2010 and 2011.
PROVIDE SHEET 3

Code	Type of income	Sum, 2010	Sum, 2011
10000000	Tax income		

20000000	Non-tax income		
40000000	Official transfers		
41010100	Funds transferred to federal budget from local budgets		
41020100	Equalizaton transfers from the federal budget to local budgets		
41020300	Equalizaton transfers obtained from rayon and city budgets		
41030000	Subventions		

MV15. Please, indicate the total of the following expenditure articles in 2010 and 2011.
PROVIDE SHEET 4

Code	Type of expensesn	Sum, 2010	Sum, 2011
070000	**Education**		
	General fund		
	Specialized fund		
080000	**Healthcare**		
	General fund		
	Specialized fund		
100000	**Housing utilities**		
100202	*Water supply and sewage*		
	General fund		
	Specialized fund		
100203	*Improvement of villages, towns and cities*		
	General fund		
	Specialized fund		
110000	Culture and ar:		
100203	*Palaces and houses of culture, clubs and other institutions of club-type*		
	General fund		
	Specialized fund		
170000	**Transportation, road maintenance, telecommunications and informatics**		

170703	*Expenses for carrying out works related to building, reconstruction and maintenance of automobile roads*		
	General fund		
	Specialized fund		
240000	**Target funds**		
240602	*Waste utilization*		
	General fund		
	Specialized fund		

MV16. Please, indicate the general budget for capital investments in 2010 and 2011 (road or water supply reconstruction, etc.)		

MV17. Please, indicate how predictable equalization transfers and capital subventions were in 2010 and 2011. Please, indicate if they were "Very predictable", "Rather predictable", "Rather unpredictable', "Not predictable at all".
SHOW CARD 17

	Very predictable	Rather predictable	Rather unpredictable	Not predictable at all
Equalization transfer	4	3	2	1
Capital subventions	4	3	2	1

B.III The Role of Enterprises within the Municipality

MV18. Please, tell if the Social Partnership Contracts were signed within the municipality. **IF NO GO TO V20**	
MV19. Please, indicate the amount of erterprises who signed Social Partnership Contracts.	
MV20. Please, indicate the amount of erterprises which made finarcial contributions within each of the categories in 2011. **SHOW CARD 18**	

Less than 1000 UAH	1000 – 5000 UAH	5000 – 10000 UAH	More than 10000 UAH

MV21. a. Please, indicate total financial contribution from private enterprises in 2010	
b. and in 2011	

MV22. I will read some statement with regard to the role of private enterprises within the municipality. Please, indicate if you "Fully agree", "Agree", "Disagree" or "Strongly disagree".
SHOW CARD 2

Statement	Fully agree	Agree	Disagree	Strongly disagree
a. The village council regularly involves representatives of private sector to the decision-making process on local development	4	3	2	1
b. Private enterprises have played decisive role in filling local budget during last two years	4	3	2	1
c. Private enterprises have significantly helped with local development during the last two years	4	3	2	1

MV23. Are there any local programs providing credit to small enterprises? If yes, please, explain.	1. Yes	2. No
MV24. Are there any other local programs which help small enterprises in some way? If yes, please, explain.	1. Yes	2. No

B.IV Ethnic Heterogeneity and Inequality within the Municipality

MV25. Please, list all the nationalities living within the municipality along with their number.
IF NO ANSWER, GO TO V26.

№	Nationality	Number of representatives
1.		

2.		
3.		
4.		
5.		
6.		
7.		
8.		

MV26. Please, evaluate the degree of population's heterogeneity within the municipality. Using a scale where "1" means "Ethnically not heterogeneous at all" and "10" – "Ethnically heterogeneous", please, choose relevant digit.

SHOW CARD 19

Ethnically not heterogeneous at all	1	2	3	4	5	6	7	8	9	10	**Ethnically heterogeneous**

MV27. I'll read some statements with regard to which I'm interested in your opinion. Please, indicate to what degree you agree with them: "Strongly agree", "Agree", "Disagree" or "Strongly Disagree".

SHOW CARD 2

Statement	Fully agree	Agree	Disagree	Strorgly disagree
a. This town welcomes people of different nationalities, cultures or religions	4	3	2	1
b. It is difficult for the newcomers to be accepted by the long-term residents	4	3	2	1
c. There is a small number of people with higher than average income within the municipality	4	3	2	1
d. There is a big difference between the incomes within the municipality	4	3	2	1

B.V Trust and Norms of Cooperation

MV28. a. Gererally speaking, would you say that most people in the municipality can be trusted? Using a scale where "1" means "Nobody Can Be Trusted" and "10" – "Most of the People Can Be Trusted", please, choose relevant figure.

SHOW CARD 4

Nobody can be trusted	1	2	3	4	5	6	7	8	9	10	**Most of the people can be trusted**

b. Generally speaking, would you say that most people in the municipality trust other residents within the municipality? Using a scale where "1" means "People Don't Trust Others at All" and "10" – "Most of the People Trust Others", please, choose relevant figure.

SHOW CARD 5

People Don't Trust Others	1	2	3	4	5	6	7	8	9	10	**Most of the People Trust Others**

MV29. I'd like to ask you how you trust different groups of people: "Trust Completely", "Trust Somewhat", "Do not Trust Very Much" or "Do not Trust at All".

SHOW CARD 6

#	Group of people	Trust Completely	Trust Somewhat	Do Not Trust Very Much	Do Not Trust at All
1.	Your neighbors	4	3	2	1
2.	People from your village	4	3	2	1
3.	People from your municipality but from a different village	4	3	2	1
3.	People from your village with another religious views	4	3	2	1
4.	People from your village but of another nationality	4	3	2	1
5.	People from the rayon center	4	3	2	1

MV30. I'd like to ask you how much you trust different institutions which should represent and protect your interests: "Trust Completely", "Trust Somewhat", "Do not Trust Very Much" or "Do not Trust at All".

SHOW CARD 6

#	Group of people	Trust Completely	Trust Somewhat	Do Not Trust Very	Do Not Trust at All

				Much	
1.	Rayon council and administration	4	3	2	1
2.	Oblast council and administration	4	3	2	1
3.	Central government	4	3	2	1
4.	Bodies of population's self-governance	4	3	2	1
5.	Non-governmental organizations	4	3	2	1
6.	Agricultural cooperatives	4	3	2	1
7.	Local business	4	3	2	1

MV31. Imagine a hypothetical situation when local leaders collect the funds for some need in the village (e.g. water supply system or health-post renovation).

a. Please, indicate how much you would trust them with money collection and expenditure afterwards.
SHOW CARD 7

Would Not Trust at All	1	2	3	4	5	6	7	8	9	10	**Would Trust Completely**

b. Now imagine that you contributed your share and there are some residents who haven't. Please, indicate how active will you personally be in persuading those who haven't contributed.
SHOW CARD 8

Not active at all	1	2	3	4	5	6	7	8	9	10	**Very active**

c. Finally, please, indicate how active other village residents will be in persuading those who haven't contributed.
SHOW CARD 8

Not active at all	1	2	3	4	5	6	7	8	9	10	**Very active**

MV32. Please, estimate how difficult it is to mobilize/motivate municipality's residents for participation in different activities: "Very Easy", "Relatively Easy", "Neither Easy nor Difficult", "Relatively Difficult", or "Very Difficult".
SHOW CARD 9

Statements	**Very Easy**	**Relatively Easy**	**Neither Easy nor Difficult**	**Relatively Difficult**	**Very Difficult**

a. For periodical financial contribution towards village development	5	4	3	2	1
b. For a specific need-based contribution (broken water pipe, etc.)	5	4	3	2	1
c. For regular meetings for discussion of the local issues	5	4	3	2	1
d. For volunteering or an in-kind contribution	5	4	3	2	1

MV33. I will read some statements which characterize local population. Please, indicate to what degree you agree with them: "Fully agree", "Rather Agree", "Rather disagree", or "Strongly disagree".
SHOW CARD 2

Statement	**Strongly agree**	**Agree**	**Disagree**	**Strongly Disagree**	**DK (don't read)**
a. When something needs to get done in the municipality, the whole community gets behind it	4	3	2	1	5
b. There are many opportunities for local residents to express their opinions on the village's development	4	3	2	1	5
c. . It is difficult find decent leaders for important roles in the municipality	4	3	2	1	5

B.VI Public Services Delivery

A. General satisfaction with public services

MV34. I'll read some statements with regard to life in the municipality. Please, indicate to what degree you agree with them: "Strongly agree", "Agree", "Disagree" or "Strongly Disagree".
SHOW CARD 2

Statement	**Strongly agree**	**Agree**	**Disagree**	**Strongly Disagree**	**DK (don't read)**
a. In general, the municipaity	4	3	2	1	5

looks nice and tidy					
b. There are enough shops and possibilities to buy things in the municipality	4	3	2	1	5
c. It is relatively easy to get around and public transportation offers adequate service	4	3	2	1	5
d. There are trash containers in the streets and the trash is picked up regularly	4	3	2	1	5
e. In general, it is clean in the streets of the municipality	4	3	2	1	5
f. There is a public park where one can go for a walk and places for children to play	4	3	2	1	5
g. Village council organizes regular community events and celebrations and all the residents of the municipality can participate	4	3	2	1	5
h. Village council organizes regular events for children and all the residents of the municipality can participate	4	3	2	1	5
i. Village council reacts to the community's needs on time and effectively	4	3	2	1	5
j. Responsiveness of the village council has improved over the last 5 years	4	3	2	1	5

MV35. Please, indicate which of these objects are in need of renovation. Would you also rank them with respect to the urgency of renovation in your opinion?

Name	Yes	No	Rank
Health-post/Ambulatory	1	2	
Village school	1	2	
Kindergarten	1	2	

Water supply system	1	2	

MV36. I'll read some statements with regard to the life within the municipality. Please, indicate to what degree you agree with them: "Fully agree", "Rather Agree", "Rather disagree", or "Strongly disagree".

SHOW CARD 2

Statement	Strongly agree	Agree	Disagree	Strongly Disagree	DK (don't read)
a. Local government (village council, rayon and oblast) is capable to finance renovaton and maintenance of the abovementioned and other public objects	4	3	2	1	5
b. With involvement of financial contributions from the local inhabitants capacity of the local government to finance renovation and maintenance of the abovementioned and other public objects will improve significantly	4	3	2	1	5

B. Healthcare

MV37. Please, indicate which types of medical institutions are located within the municipality.

Type of institution	Yes	No	DK
Health-post	1	2	3
Ambulatory	1	2	3
Hospital	1	2	3

MV38. I'll read some statements with regard to local healthcare. Please, indicate to what degree you agree with them: "Strongly agree", "Agree", "Disagree" or "Strongly Disagree".

SHOW CARD 2

Statement	Fully agree	Rather agree	Rather disagree	Strongly disagree
a. It is possible to obtain basic healthcare services in the nearest health post	4	3	2	1

b. You don't have to pay anything for the services obtained at the health post	4	3	2	1
c. If you call an ambulance it will come rather quickly	4	3	2	1
d. You don't have to pay anything for the ambulance services	4	3	2	1
e. You can feel certain you will obtain all the necessary healthcare services if there is a need	4	3	2	1
f. Local health-post/ambulatory have nice and tidy building	4	3	2	1
g. All the personnel stipulated by law is in place	4	3	2	1
h. Local FAP/Ambulatory has all the necessary equipment stipulated by law	4	3	2	1
i. Local FAP/Ambulatory has modern heating system and the whole building is well-insulated	4	3	2	1
j. Healthcare services are accessible for all inhabitants of the municipality	4	3	2	1

MV39.	Where and how far away is the nearest hospital where you can get qualified medical care if complicated manipulations are required?	Town/City	
MV40.	Where is the nearest ambulance station located?	Town/City	
		Distance	
MV41.	How long does it take for ambulance to reach your household?		

MV42. Has accessibility and quality of healthcare services changed in the last 5 years? Please, indicate whether the following social services "Improved a lot", "Improved a bit", "Stayed the same", "Deteriorated a bit" or "Deteriorated a lot".

SHOW CARD 13

Service	Improved a lot	Improved a bit	Stayed the same	Deteriorated a bit	Deteriorated a lot	DK (don't read out loud)

Primary healthcare (in the health-post)	5	4	3	2	1	6
Ambulance service	5	4	3	2	1	6
Specialized care	5	4	3	2	1	6

8. Education

MV43. Please, indicate if you personally have children of school or pre-school age?	**1. – Yes**	**2. – No**

MV44. Please, indicate which types of educational institutions are located within the municipality.

Types of institutions	Yes	No	DK
Day nursery/Kindergarten	1	2	3
Elementary school	1	2	3
Middle school	1	2	3
High school	1	2	3

MV45. How many students are in local school?	
MV46. What is the schools capacity?	
MV47. How many teachers are employed in the school?	

MV48. I'll read some statements regarding local education. Please, indicate to what degree you agree with them: "Strongly agree", "Agree", "Disagree" or "Strongly Disagree".

SHOW CARD 2

Statement	Strongly agree	Agree	Disagree	Strongly Disagree
a. Local school has a well-maintained and renovated building	4	3	2	1
b. Kindergarten has a well-maintained and renovated building	4	3	2	1
c. Local school has all the necessary equipment including a computer class	4	3	2	1

and internet access				
d. Kindergarten has all the necessary equipment in order to operate	4	3	2	1
e. Local school has modern heating system and the whole building is well-insulated	4	3	2	1
f. Kindergarten has modern heating system and the whole building is well-insulated	4	3	2	1
g. There is a school-bus which brings kids from remote parts of the village or from neighboring villages	4	3	2	1

MV49. In the past 5 years, has the availability and quality of educational services changed? Please, indicate whether the following educational services "Improved a lot", "Improved a bit", "Stayed the same", "Deteriorated a bit" or "Deteriorated a lot".

SHOW CARD 13

Improved a lot	Improved a bit	Stayed the same	Deteriorated a bit	Deteriorated a lot	DK (don't read out loud)
5	4	3	2	1	6

MV50.	Are the parents ready to send their children to the schools situated further away if they'd be confident that quality of education would be better there?	1. – Yes	2. – No
MV51.	Do you think the parents within the municipality would agree t contribute financially towards purchase and maintenance of a school bus?	1. – Yes	2. – No
MV52.	Do the parents contribute financially on a regular basis toward school development?	1. – Yes	2. – No
IF NO GO TO V54.			
MV53.	Does the school force the parents to pay or are these contributions voluntary?	1. – Yes	2. – No

C. Water supply

MV54. To the best of your knowledge, please, indicate which water supply systems could be found in you municipality.

Name	Yes	No	DK
a. Central supply system from the water way	1	2	3

b. Central supply system from a local well	1	2	3
c. Public wells	1	2	3
d. Private wells	1	2	3
e. Water containers filled with water from outside the municipality	1	2	3
f. Other	1	2	3

MV55.	Which water supply system is used in your household?	

MV56. I'll read some statements with regard to local water supply. Please, indicate to what degree you agree with them: "Strongly agree", "Agree", "Disagree" or "Strongly Disagree".

SHOW CARD 2

Statement	Strongly agree	Agree	Disagree	Strongly Disagree
a. General condition of the water supply system within the municipality is good	4	3	2	1
b. General condition of the water supply system within my household is good	4	3	2	1
c. The quality of water used by the municipality's inhabitants is good	4	3	2	1
d. I use a water meter in my household	4	3	2	1
e. All the inhabitants of the village council use water meters	4	3	2	1

MV57. Has the access to water changed over the last 5 years? Please, indicate whether water supply services "Improved a lot", "Improved a bit", "Stayed the same", "Deteriorated a bit" or "Deteriorated a lot"

SHOW CARD 13

	Improved a lot	Improved a bit	Stayed the same	Deteriorated a bit	Deteriorated a lot	DK (don't read out loud)
Access to water	5	4	3	2	1	6
Water quality	5	4	3	2	1	6

D. Waste

MV58. Please, indicate what the inhabitants do with the waste.

Action	Yes	No
Put the waste in special container which is regularly emptied by the village council	1	2
Collect the waste and take to the organized dump independently	1	2
Collect the waste and take to the improvised dump far away from the houses	1	2
Burn the waste	1	2
Recycle some waste	1	2
Don't have any waste	1	2
MV59. Please, indicate if there is a waste landfill within the municipality. **IF NO GO TO V61.**	1	2
MV60. Are the standards of the landfill correspond to legal requirements?	1	2

B.VII Relationship with Nongovernmental Organizations

MV61. Are there nongovernmental organizations established within the municipality? **LIST AND INDICATE THE NUMBER**					
Civic organizations	Charitable foundations	Service cooperatives	Bodies of population's self-governance	Street committees	Others
1	2	3	4	5	6

MV62. I will read some statements with regard to civic engagement within the municipality. Please, indicate to what degree you agree with them: "Strongly agree", "Agree", "Disagree" or "Strongly Disagree".
SHOW CARD 11

Statement	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree
a. Active civil society is important for local governance and development	5	4	3	2	1
b. It is important to involve community members to planning of a long-term development strategy	5	4	3	2	1

c. Civil society is an obstacle in implementation of local development initiatives	5	4	3	2	1
d. Village council closely cooperates with local NGO	5	4	3	2	1
e. It is very difficult to establish an NGO without a support from the village council	5	4	3	2	1
f. It is necessary to establish a fund of community development out of regular contributions of the community members in order to supplement council's budget	5	4	3	2	1
g. Village council financially supports local NGO in implementation of its mission	5	4	3	2	1
h. Local NGOs have significantly contributed to local development	5	4	3	2	1
i. Capacity of the local NGO is rather high	5	4	3	2	1
j. When each citizen has made financial contribution in community development the attitudes within the community change for better	5	4	3	2	1

MV63. Have you been involved in establishment of the NGO?	1. Yes	2. No
MV64. Please, indicate you role in this organization now.		

B.VI Demographic Characteristics and Income

MV65. I would to better understand how many people live in your household.

A. Please, indicate the amounts of adults according to the following categories							
b. Spouse	c. Farther/Mother	d. Sister/Brother	e. Grandfather/Grandmother	f. Father-/Mother-in-law	g. Other relatives	h. Tenant	i. Other

B. Please, indicate the amounts of children according to the following categories.			
a. Children	b. Grandchildren	c. Grand-grandchildren	d. Others

MV66. Please, indicate the highest education you obtained. IF THE RESPONDENT STUDIES USE THE DEGREE HE/SHE IS PURSUING					
Incomplete secondary education	Complete secondary education	Higher technical education	Bachelor	Master or higher	Specialist
1	2	3	4	5	6

MV67. Income

MV67.1. Who earns the main income in your household?	
MV67.2. Please, choose one of the categories which correspond to your total monthly income (UAH per month): you salary and salary of your household members, pension, income from real estate rental, help from children, etc. SHOW CARD 14	
MV67.3. What is the percentage of product which you use for food comes from self-grown vegetables, fruits, cattle, poultry in comparison to what you have to buy in the stores?	
MV67.4. Do you own land?	
IF NOT GO TO V68.6	
MV67.5. How much land do you own?	

<800	>800 but <1500	>1500 but <2500	>2500 but <3500	>3500 but <5000	>5000
1	2	3	4	5	6

MV67.6. Do you own the following items?			
№	Item	Yes	No
1.	Refrigerator	1	2

2.	DVD-player	1	2
3.	Car	1	2
4.	Air-conditioning	1	2
5.	Automatic washing machine	1	2
6.	WC and water supply in the house	1	2

V68.	Please, indicate your date of birth.	19_____

MARK THE EXACT TIME OF THE INTERVIEW'S END _____

[End of questionnaire]

APPENDIX E: RESIDENTS' QUESTIONNAIRE

Please, note the cards used during the interviewing process were designed to illustrate the scales portrayed in the questionnaire.

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Community Governance Survey

_____ **oblast,** _____ **village council**

Village _____

Date _____

Interviewer: _____

Time of conducting interview: beginning _____

Location ID: _____

Sex: _____

PLEASE, READ THIS TEXT BEFORE THE INTERVIEW

Hello! My name is _____. I work at the Institute for Agricultural Development in Central and Eastern Europe. We are now carrying out a survey of residents within selected municipalities in _____ oblast with regard to access to public services and local governance. This survey is part of a larger international research which is implemented in the countries of Eastern Europe. We are interested in your opinion on many different topics. Your participation in this survey and your help will allow us to better understand how to improve public services and infrastructure in the village. Thank you for your agreement to participate in this survey.

Participants were selected randomly. Your responses, just like responses of all other survey participants, will be used only in a generalized form after statistical analysis.

A. Screening

RV1.	Please, indicate you birth date	19_____

RV2. Please, indicate you employment status by choosing one of the following categories.

Employed	Self-employed	Retired	Unemployed
1	2	3	4

If (3), PLEASE, INDICATE ALSO IN V45 NOW

RV3.	Were you born within this municipality?	1. Yes	2. No

IF YES GO TO QUESTION V5

RV4.	When did you move to this municipality?	

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B. Main questionnaire

B.I Access to information

RV5.	a. How many times on average per month do you travel to the rayon center for business or leisure?		
	b. How many times on average per year do you travel to the oblast center for business or leisure?		
RV6.	Do you have access to internet in your household? **IF NO GO TO QUESTION V6.b**	1. Yes	2. No
	a. How many times a week you use internet?		
	b. Please, try to evaluate your knowledge in using computer and Internet using a scale where "1" means absolute beginner and "10" – advanced user. **SHOW CARD 1**		

Absolute beginner									Advanced user
1	2	3	4	5	6	7	8	9	10

RV7. Please, indicate if you agree with the following statements regarding the access to information within the municipality: "Strongly agree", "Agree", "Disagree" or "Strongly Disagree"?
SHOW CARD 2

Statement	Strongly agree	Agree	Disagree	Strongly Disagree	DK (don't read)
a. The village council regularly and effectively provides information about local issues	4	3	2	1	5
b. There is a sufficient choice of newspapers and informational publications within the municipality	4	3	2	1	5

RV8.	A. How many times a year does the village council invite the residents to discuss current issues?	

	IF (0) GO TO V9			
	B. How often do you participate? SHOW CARD 3			
Very Often	Rather Regularly	Sometimes	Nearly Never	Never
5	4	3	2	1

B.II Trust and Norms of Cooperation

RV9. a. Generally speaking, would you say that most people in the municipality can be trusted? Using a scale where "1" means "Nobody Can Be Trusted" and "10" – "Most of the People Can Be Trusted", please, choose relevant figure.
SHOW CARD 4

Nobody Can Be Trusted	1	2	3	4	5	6	7	8	9	10	Most of the People Can Be Trusted

b. Generally speaking, would you say that most people in the municipality trust other residents within the municipality? Using a scale where "1" means "People Don't Trust Others at All" and "10" – "Most of the People Trust Others", please, choose relevant figure.
SHOW CARD 5

People Don't Trust Others	1	2	3	4	5	6	7	8	9	10	Most of the People Trust Others

RV10. I'd like to ask you how you trust different groups of people: "Trust Completely", "Trust Somewhat", "Do not Trust Very Much" or "Do not Trust at All".
SHOW CARD 6

#	Group of people	Trust Completely	Trust Somewhat	Do Not Trust Very Much	Do Not Trust at All	DK (Don't read out loud)
1.	Your neighbors	4	3	2	1	5
2.	People from your village	4	3	2	1	5

3.	People from your municipality but from a different village	4	3	2	1	5
3.	People from your village with another religious views	4	3	2	1	5
4.	People from your village but of another nationality	4	3	2	1	5
5.	People from the rayon center	4	3	2	1	5

RV11. I'd like to ask you how much you trust different institutions which should represent and protect your interests: "Trust Completely", "Trust Somewhat", "Do not Trust Very Much" or "Do not Trust at All".
SHOW CARD 6

#	Group of people	Trust Completely	Trust Somewhat	Do Not Trust Very Much	Do Not Trust at All	DK (Don't read out loud)
1.	Mayor	4	3	2	1	5
2.	Village council	4	3	2	1	5
3.	Rayon council and administration	4	3	2	1	5
4.	Oblast council and administration	4	3	2	1	5
5.	Central government	4	3	2	1	5
6.	Bodies of self-governance	4	3	2	1	5
7.	NGOs	4	3	2	1	5
8.	Agricultural cooperatives	4	3	2	1	5
9.	Local business	4	3	2	1	5

RV12. Imagine a hypothetical situation when local leaders collect the funds for some need in the village (e.g. water supply system or health-post renovation).

a. Please, indicate how much you would trust them with money collection and expenditure afterwards.
SHOW CARD 7

Would Not Trust at All	1	2	3	4	5	6	7	8	9	10	Would Trust Completely

b. Now imagine that you contributed your share and there are some residents who haven't. Please, indicate how active will you personally be in persuading those who haven't contributed.
SHOW CARD 8

Not active at all	1	2	3	4	5	6	7	8	9	10	Very active

c. Finally, please, indicate how active other village residents will be in persuading those who haven't contributed.
SHOW CARD 8

Not active at all	1	2	3	4	5	6	7	8	9	10	Very active

RV13. Please, estimate how difficult it is to mobilize/motivate municipality's residents for participation in different activities: "Very Easy", "Relatively Easy", "Neither Easy nor Difficult", "Relatively Difficult", or "Very Difficult".
SHOW CARD 9

Statements	Very Easy	Relatively Easy	Neither Easy nor Difficult	Relatively Difficult	Very Difficult
a. For periodical financial contribution towards village development	4	3	2	1	5
b. For a specific need-based contribution (broken water pipe, etc.)	4	3	2	1	5
c. For regular meetings for discussion of the local issues	4	3	2	1	5
d. For volunteering or an in-kind contribution	4	3	2	1	5

RV14. I'll read some statements which characterize local population. Please, indicate to what degree you agree with them: "Strongly agree", "Agree", "Disagree" or "Strongly Disagree".
SHOW CARD 2

Statement	Strongly agree	Agree	Disagree	Strongly Disagree	DK (don't read)
a. When something needs to get done in the municipality, the whole community gets behind it	4	3	2	1	5
b. There are many opportunities for local residents to express their opinions on the village's development	4	3	2	1	5
c. It is difficult find decent leaders for important roles in the municipality	4	3	2	1	5

B.III Participation in the community life

RV15. How could you describe your involvement in the local affairs of the municipality?
SHOW CARD 10

Not involved at all	1	2	3	4	5	6	7	8	9	10	Very involved

RV16. Are you a member of any of the following organizations based within the municipality?

No	Civic Organization	Charitable Foundation	Service Cooperative	Body of Self-Governance	Street Committee
1	2	3	4	5	6

IF NO GO TO QUESTION V18. | Other INDICATE HERE | 7

RV17. How would you describe your involvement in that organization(s)?
SHOW CARD 10

Not involved at all	1	2	3	4	5	6	7	8	9	10	Very involved

RV18. Please, indicate whether you have made any of the following contributions towards activities of similar organizations within the municipality.

Type of the contribution	Yes	No	DK
a. One-time monetary contribution	1	2	3
b. Regular monetary contribution	1	2	3
c. One-time or regular in-kind contribution	1	2	3

RV19. I'll read some statements with regard to which I'm interested in your opinion. Please, indicate to what degree you agree with them: "Strongly agree", "Agree", "Neutral", "Disagree" or "Strongly Disagree".
SHOW CARD 11

Statement	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree
a. Each citizen's community involvement can move forward local development	4	3	2	1	5
b. Providing well-being for the community is solely responsibility of the government	4	3	2	1	5

RV20. Do you help the poor or those residents who find themselves in a difficult life situation within your municipality?
SHOW CARD 12

Don't help at all									Regularly
1	2	3	4	5	6	7	8	9	10

RV21.	A. Have you volunteered your time and efforts for some community cause during in 2011?	1. Yes	2. No
IF NO GO TO QUESTION V22			
	B. How many times?		

B.IV Ethnic diversity and inequality within the municipality

RV22. I'll read some statements with regard to which I'm interested in your opinion. Please, indicate to what degree you agree with them: "Strongly agree", "Agree", "Disagree" or "Strongly Disagree".
SHOW CARD 2

Statement	Strongly agree	Agree	Disagree	Strongly Disagree	DK (don't read)
a. This town welcomes people	4	3	2	1	5

of different nationalities, cultures or religions					
b. It is difficult for the newcomers to be accepted by the long-term residents	4	3	2	1	5
c. There is a small number of people with higher than average income within the municipality	4	3	2	1	5
d. There is a big difference between the incomes within the municipality	4	3	2	1	5

B.V Public goods delivery

A. General Satisfaction with Municipality's Public Services

RV23. I'll read some statements with regard to life in the municipality. Please, indicate to what degree you agree with them: "Strongly agree", "Agree", "Disagree" or "Strongly Disagree".
SHOW CARD 2

Statement	Strongly agree	Agree	Disagree	Strongly Disagree	DK (don't read)
a. In general, the municipality looks nice and tidy	4	3	2	1	5
b. There are enough shops and possibilities to buy things in the municipality	4	3	2	1	5
c. It is relatively easy to get around and public transportation offers adequate service	4	3	2	1	5
d. There are trash containers in the streets and the trash is picked up regularly	4	3	2	1	5
e. In general, it is clean in the streets of the municipality	4	3	2	1	5
f. There is a public park where one can go for a walk and	4	3	2	1	5

places for children to play					
g. Village council organizes regular community events and celebrations and all the residents of the municipality can participate	4	3	2	1	5
h. Village council organizes regular events for children and all the residents of the municipality can participate	4	3	2	1	5
i. Village council reacts to the community's needs on time and effectively	4	3	2	1	5
j. Responsiveness of the village council has improved over the last 5 years	4	3	2	1	5

RV24. Please, indicate which of these objects are in need of renovation. Would you also rank them with respect to the urgency of renovation in your opinion?

Name	Yes	No	Rank	DK (don't read out loud)
Health-post/Ambulatory	1	2		3
Village schoo	1	2		3
Kindergarten	1	2		3
Water supply system	1	2		3

B. Healthcare

RV25. Please, indicate which types of medical institutions are located within the municipality.

Type of institution	Yes	No	DK
Health-post	1	2	3
Ambulatory	1	2	3
Hospital	1	2	3

RV26. I'll read some statements with regard to local healthcare. Please, indicate to what degree you agree with them: "Strongly agree", "Agree", "Disagree" or "Strongly Disagree".

SHOW CARD 2

Statement	Strongly agree	Agree	Disagree	Strongly Disagree	DK (don't read)
a. It is possible to obtain basic healthcare services in the nearest health post	4	3	2	1	5
b. You don't have to pay anything for the services obtained at the health post	4	3	2	1	5
c. If you call an ambulance it will come rather quickly	4	3	2	1	5
d. You don't have to pay anything for the ambulance services	4	3	2	1	5
e. You can feel certain you will obtain all the necessary healthcare services if there is a need	4	3	2	1	5
f. Local health-post/ambulatory have nice and tidy building	4	3	2	1	5
g. All the personnel stipulated by law is in place	4	3	2	1	5
h. Local FAP/Ambulatory has all the necessary equipment stipulated by law	4	3	2	1	5

RV27.	Where and how far away is the nearest hospital where you can get qualified medical care if complicated manipulations are required?	Village/City	
		Distance	
RV28.	Where is the nearest ambulance station located?	Village/City	
		Distance	
RV29.	How long does it take for the ambulance to reach your household?		

RV30. Has accessibility and quality of healthcare services changed in the last 5 years? Please, indicate whether the followng social services "Improved a lot", "Improved a bit", "Stayed the same", "Deteriorated a bit" or "Deteriorated a lot".

SHOW CARD 13

Service	Improved a lot	Improved a bit	Stayed the same	Deteriorated a bit	Deteriorated a lot	DK (don't read out loud)
Primary healthcare (in the health-post)	5	4	3	2	1	6
Ambulance service	5	4	3	2	1	6
Specialized care	5	4	3	2	1	6

C. Education

RV31. Please, tell me if you have kids of school or pre-school age.	1. – Yes	2. – No

RV32. Please, indicate which types of educational institutions are located within the municipality.

Type of the institution	Yes	No	DK
Kindergarten	1	2	3
Elementary school	1	2	3
Middle school	1	2	3
High school	1	2	3

RV33. I'll read some statements regarding local education. Please, indicate to what degree you agree with them: "Strongly agree", "Agree", "Disagree" or "Strongly Disagree".
SHOW CARD 2

Statement	Strongly agree	Agree	Disagree	Strongly Disagree	DK (don't read)
a. Local school has a well-maintained and renovated building	4	3	2	1	5
b. Kindergarten has a well-maintained and renovated building	4	3	2	1	5
c. Local school has all the necessary equipment including a computer class and internet access	4	3	2	1	5
d. Kindergarten has all the necessary equipment in order to operate	4	3	2	1	5
e. Local school has modern heating system and the whole building is well-insulated	4	3	2	1	5
f. Kindergarten has modern heating system and the whole building is well-insulated	4	3	2	1	5
g. There is a school-bus which brings kids from remote parts of the village or from neighboring villages	4	3	2	1	5

RV34. In the past 5 years, has the availability and quality of educational services changed? Please, indicate whether the following educational services "Improved a lot", "Improved a bit", "Stayed the same", "Deteriorated a bit" or "Deteriorated a lot".
SHOW CARD 13

Improved a lot	Improved a bit	Stayed the same	Deteriorated a bit	Deteriorated a lot	DK (don't read out loud)
5	4	3	2	1	6

RV35.	Would you be willing to let your children travel further distance to remote schools if you were sure the quality of obtained knowledge would be better there?	1. – Yes	2. – No
RV36.	Would you agree to contribute financially to purchasing and maintenance of a school bus together with other residents of t municipality?	1. – Yes	2. – No
RV37.	Do you contribute monetarily towards development of the loca school?	1. – Yes	2. – No
IF NO GO TO QUESTION V39.			
RV38.	Does the school force parents to pay?	1. – Yes	2. – No

D. Water supply

RV39. To the best of your knowledge, please, indicate which water supply systems could be found in you municipality

Name	Yes	No	DK
a. Central supply system from the water way	1	2	3
b. Central supply system from a local well	1	2	3
c. Public wells	1	2	3
d. Private wells	1	2	3
e. Water containers filled with water from outside the municipality	1	2	3
f. Other			

RV40.	Which of the water supply systems is used in your household?	

RV41. I'll read some statements with regard to local water supply. Please, indicate to what degree you agree with them: "Strongly agree", "Agree", "Disagree" or "Strongly Disagree".
SHOW CARD 2

Statement	Strongly agree	Agree	Disagree	Strongly Disagree	DK (don't read)
a. I am satisfied with the general condition of the water supply system within the municipality	4	3	2	1	5
b. General condition of the water supply system in my household is good	4	3	2	1	5
c. The quality of water in my household is generally good	4	3	2	1	5
d. I use water consumption meter in my household	4	3	2	1	5
e. Most of my neighbors and other people within the municipality have water consumption meters	4	3	2	1	5

RV42. Has the access to water changed over the last 5 years? Please, indicate whether water supply services "Improved a lot", "Improved a bit", "Stayed the same", "Deteriorated a bit" or "Deteriorated a lot".
SHOW CARD 13

	Improved a lot	Improved a bit	Stayed the same	Deteriorated a bit	Deteriorated a lot	DK (don't read out loud)
Access to water	5	4	3	2	1	6
Quality of water	5	4	3	2	1	6

E. Waste

RV43. Please, indicate what you do with the waste.

Action	Yes	No
I put the waste in special container which is regularly emptied by the village council	1	2
I collect the waste and take to the organized dump independently	1	2
I collect the waste and take to the improvised dump far away from the houses	1	2
I burn the waste	1	2
I recycle some waste	1	2
I don't have any waste	1	2
Other	1	2

B.VI Demographics and income

RV44. I'd like to better understand how many people live in your household.

A. Please, list all the grownups according to the following categories								
a. Head	b. Spouse	c. Father/Mother	d. Sister/Brother	e. Grandfather/-mother	f. Father-/Mother-in-law	g. Other relatives	h. Tenant	i. Others
B. Please, list all the children within the household according to the following categories.								

a. Children	b. Grandchildren	c. Grand-grandchildren	d. Other

RV45. Please, indicate where are you employed currently?

a. Agricultura enterprise	1
b. Self-employed	2
c. Non-agricutural enterprise, organization or establishment	3
d. State official	4
e. Housewife	5
f. Student	6
g. Retired	7

IF (5, 7) GO TO QUESTION V48.

RV46. Please, indicate the name of the enterprise or nstitution.	
RV47. Please, indicate how many km you need to travel to your working place.	

RV48. Please, indicate what the highest education you obtained is. **IF THE RESPONDENT IS STUDYING INDICATE THE EDUCATION S/HE IS OBTAINING**

Incomplete secondary education	Complete secondary education	Higher technical educaton	Bachelor's degree	Master's degree or higher	Specialist	DK
1	2	3	4	5	6	7

RV49. Please, indicate which nationality you consider yourself	

RV50. Income

RV50.1. Who earns the main income in your household?	

RV50.2. Please, choose one of the categories which correspond to your total monthly income (UAH per month): you salary and salary of your household members, pension, income from real estate rental, help from children, etc.
SHOW CARD 14

<800	>800 and <1500	>1500 and <2500	>2500 and <3500	>3500 and <5000	>5000
1	2	3	4	5	6

RV50.3. What is the percentage of product which you use for food comes from self-grown vegetables, fruits, cattle, poultry in comparison to what you have to buy in the stores?	

RV50.4. Do you own land?	
IF NO GO TO QUESTOIN V50.6.	
RV50.5. How much land do you own?	

RV50.6. Do you own the following items?

#	Item	Yes	No
1.	Refrigerator	1	2
2.	DVD player	1	2
3.	Car	1	2
4.	Air conditioner	1	2
5.	Automatic washing machine	1	2
6.	Bathroom and in-door plumbing system	1	2

RV51. Are you a member of some political party? If yes, which one? **IF NO ASK THE FOLLOWING**	
RV52. Do you have any preference of any of the political parties in Ukraine?	

MARK EXACT TIME OF THE END OF THE INTERVIEW _____

[End of the questionnaire]

To be filled out by the interviewer:

1. Please, indicate how interested was the respondent in answering the questions during the interview

Very interested						Showed minimum interest	Difficult to say
1	2	3	4	5	6	7	8

2. Please, indicate which language the respondent used in responding the questions.

Russian	Ukrainian
1	2

3. Please, mark here any unusual thing which you happened to notice during the interview.

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