

Kassahun, Samson

**Working Paper**

## Social capital and community efficacy: In poor localities of Addis Ababa Ethiopia

ZEF Working Paper Series, No. 4

**Provided in Cooperation with:**

Zentrum für Entwicklungsforschung / Center for Development Research (ZEF), University of Bonn

*Suggested Citation:* Kassahun, Samson (2005) : Social capital and community efficacy: In poor localities of Addis Ababa Ethiopia, ZEF Working Paper Series, No. 4, University of Bonn, Center for Development Research (ZEF), Bonn,  
<https://nbn-resolving.de/urn:nbn:de:0202-2008091137>

This Version is available at:

<https://hdl.handle.net/10419/88391>

**Standard-Nutzungsbedingungen:**

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

**Terms of use:**

*Documents in EconStor may be saved and copied for your personal and scholarly purposes.*

*You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.*

*If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.*

# ZEF

Bonn 2005

## Working Paper Series

4

Center for Development  
Research

Department of  
Political and  
Cultural Change

Research Group  
Culture, Knowledge and Development



Zentrum für Entwicklungsforschung  
Center for Development Research

Samson Kassahun

## Social Capital and Community Efficacy:

In Poor Localities of Addis Ababa  
Ethiopia

ISSN 1864-6638

ZEF Working Paper Series, ISSN 1864-6638  
Department of Political and Cultural Change  
Center for Development Research, University of Bonn  
Editors: H.-D. Evers, Solvay Gerke, Peter Mollinga, Conrad Schetter

### Authors' address

Samson Kassahun  
e-mail: [samsonk@excite.com](mailto:samsonk@excite.com)

# Social Capital and Community Efficacy In Poor Localities of Addis Ababa Ethiopia

Samson Kassahun

## Abstract

This study explores how social capital and human and economic variations in poor localities influence the capacity for community efficacy. Through a multivariate analysis using 497 households in poor localities of Addis Ababa, we investigate how social capital dimensions (density of membership, informal network, trust and reciprocity) and human and economic characteristics (education and welfare status) of the households are related to community efficacy. Community efficacy is highly associated with increased participation in local associations; trust in the community, confidence in local institutions and pattern of reciprocity among inhabitants. These findings provide qualified support for the systemic model of local social organization but challenge theory of social disorganization that predicts lower levels of social capital in poor communities engendering lower capacity of community efficacy.

## Keywords

social capital; community efficacy; collective action; poor localities; urban poor

# 1. Introduction

Much of the recent research on community development focused on whether and how community benefits from social resources that are created through social networks, patterns of social interaction among inhabitants, and the form of social organization in the localities (Frankfort and Palen 1993; Parisi et al. 2002; Sampson 1988; Sampson, Morenoff and Earls 1999; Unger and Wandersman 1982). It is also assumed that the stronger the social organization, the higher the capacity for community efficacy would be (Parisi et al. 2002). Community efficacy defined as the ability of local population to come together and act collectively in pursuit of generalized mutual interest (Parisi et al. 2002; Perkins et al. 1990; Sampson, Morenoff and Earls 1999). In this view, community efficacy is an essential quality for community to be engaged in a feasible and sustainable community development (Folra & Flora, 1993; Shuman, 2000; Swanson, 2001; Wilkinson, 2000).

In the classic work of the Chicago School of Urban Sociology it was thought that density, low economic status, ethnic heterogeneity and residential instability led to 'social disorganization' resulting high rates of crime and disorder in a community (Savage, Warde and Ward 2003). The concept of social disorganisation came to be defined as the inability of a community to realise the common values of its residents and maintain effective social order (Morenoff, Sampson and Raudenbush 2001). This theoretical definition was formulated with a basic consideration that the poor community was viewed as suffering from a disrupted or weakened system of networks (Morenoff, Sampson and Raudenbush 2001). More recently, there is revitalization on the community-level research through increasing use of the concept of 'social capital.' Robert Putnam defines social capital as the networks, norms, and trust that facilitate coordination and cooperation for mutual benefit (Putnam, Leonardi and Nanetti 1993). Social capital is embedded on social participation in formalized relationships, informal networking, trust, reciprocity and integration in communities (Putnam et al. 1993).

Moreover, a wide range of literature has now highlighted the importance of 'social capital' in household's cooperative strategies to deal with poverty and uncertainty even to subsist in cities of developing regions, particularly in Asia (Evers and Korff 1986, 2000), in Africa (Moser 1998) and in Ethiopia (Dejene 1993, 2001; Levine 1965; Shack 1973; Tirfe 1999). However, there has been little attention to see whether and how social capital in poor community influences the community efficacy. In this article we argue that social capital in poor localities is an important factor in increasing the capacity for community efficacy. The objective of this paper is to examine whether and how the social capital variables (network, trust, reciprocity) and human and economic variables explain the community efficacy. The example we are concerned in this paper is the collective action performed by inhabitants of poor localities in Addis Ababa in mobilizing the inhabitants to contribute the 10 percent matching fund for access road construction. The remainder of the paper is organized as follows: In second section that follows, we provide a theoretical basis for defining community efficacy. In the third section, we describe generally and operationalize the concept of social capital and the human and economic characteristics. The fourth section is about the method of analysis and the variables used in the analysis. The fifth section discusses the result of multivariate analysis followed by section six which summarize and concludes.

## 2. Community efficacy

The concept of neighborhoods 'community efficacy' captures the importance of the link between trust and cohesion on the one hand and shared expectations for the outcome on the other. It is a task-oriented construct that draws attention to shared expectations and mutual engagement by residents in local development (Parisi et al. 2002). The term community efficacy is, therefore, meant to signify an emphasis on shared beliefs in a neighborhood's capability for action to achieve an intended effect, coupled with an active sense of engagement on the part of residents (Sampson, Raudenbush and Felton Earls 1997). Networks, trust and reciprocity, which are features of social life, enables the participants to act collectively to having a shared vision (Rudd 2000). Distinguishing between the resource potential represented by personal ties, on the one hand, and the shared expectations for action among neighbors represented by community efficacy, on the other, helps examine whether and how social capital influences community efficacy. The underlying assumption here is that social capital plays a great role in collective action and collective decision-making (Narayan 1995).

Community efficacy is influenced by the institutional structure, such as government policies, cultural religious values, social capital, ethnicity, and property rights structure, on which the community is embedded (Castille 1998; Grootaert 1999; Ostrom 1998; Rudd 2000). Therefore, increased frequency of interaction reduces free riding, promotes strong norms of reciprocity and social trust, amplifies the flow of information, and finally provides templates for development collaboration. Associations and institutions provide a framework for sharing information, co-ordinating activities, and making collective decisions and action. In this paper, in order to identify and capture the type of collective action aspect of community efficacy in the study areas, focus group discussion and site reconnaissance survey, were conducted. The focus group discussion and the in-depth interview conducted in the selected 16 poor Kebeles in Addis Ababa revealed the existence of collective action. People were mobilized to contribute 10 percent matching fund for the construction of access road in the neighbourhood, while non-community agents such as government or non-government organizations covered the remaining 90 percent of the fund.

## 3. Social capital

There has been some debate over the precise definition and measure of social capital (Woolcock and Narayan 2000). Social capital can be defined as a variety of different entities, which consist of some aspect of social structure (Coleman 1988). Many writers on the concept of social capital used terms 'bonding' and 'bridging' to differentiate the type of social capital (Narayan and Pritchett 1997; Putnam 2000; Woolcock and Narayan 2000). Bonding social capital associates with strong ties in a closed social structure. Bridging social capital, on the other hand, refers to the aspect of social capital that emphasizes on tolerance of difference members as social actors. It is usually associated with the openness of social structures. The tendency of inhabitants engaging in more than one type of local associations could be regarded as an indicator for the existence of both bonding and bridging type of social capital, which is actually considered important for collective action to happen. For this paper, social capital, therefore, encapsulates both bonding and bridging social relations that help facilitate collective action.

Social capital, due to its embedment in the social relation between and among actors such as individuals, local associations and institutions (Bourdieu 1986; Flora et al. 1997; Portes and Sensenbrenner 1993; Putnam 2000) can be accessed only through social connections. The extent to which actors can engage in collective action is dependent upon both the bonding and bridging type of connections. It also depends on the number of actors involved in the social relations (Bourdieu 1986) and the intensity of reciprocal exchange among actors (Coleman 1988; Coleman 1990). According to Coleman (1990), there are three components of social structure that can be taken by social capital: obligations and expectations, the flow of information, and norms accompanied by sanctions. Though a high level of trustworthiness in society certainly facilitates the emergence of each of these three components. Gronovetter (1985) in the same way emphasized the framework in which interface among actors takes place. He stresses the role of concrete personal relations and structures of such relations in generating trust and discouraging malfeasance. By and large, an essential aspect of community togetherness is a social capital, which includes mutual trust, reciprocity, shared norms and identity (Flora et al. 1997). In light of this background we operationalized and measured the concept of social capital at the household level in the following dimensions:

**Density.** Density of membership or to be engaged in membership of more than one association indicates bonding and bridging social capital. Having more participation in different local association should favour community efficacy due to the possible learning effect through information transmission and access to it as well as accumulation of social capital (Baland and Platteau. 1997; Pender 1999). In this research it is hypothesize that the more the household is participating in different local association the higher the likelihood to have the capacity for community efficacy.

**Active participation.** It has been argued that associations, which follow a democratic pattern of decisions making, are more effective than the others in implementing community oriented activities (Grootaert 1999). Local association is assumed to be the important factor to favour community efficacy in the community. A member of household that is considered to be active in local associations activities are very likely to develop and achieve generalized trust (Fukuyama 1995b; Putnam et al. 1993) and reciprocity, which reduces transaction-costs and coordinates collective action.

**Informal network.** The growing body of literature suggests that both formal and informal type of networks promote social capital (Burt 2000; Coleman 1988; Narayan 1999; Richard and Roberts 1998). Informal networks includes network established with friends and family in the community or neighbourhood-related friendships. In this research, informal network was considered as ordinary socializing, but it also provides personal support, a wide range of help and information, and offer channels for community efficacy. Informal network is hypothesises to be important, through increasing access to information and trust, in creating a good atmosphere for the household to participate in community efficacy.

**Trust variables.** Trust is considered as a good lubricant in a given cooperation. It reduces the transaction costs between people, and so librated resources. Instead of having to invest in monitoring the others, individual are able to trust them to act as expected. It can also create a social obligation; by trusting someone engenders reciprocal trust. There are basically three types of trust: the trust we have in individuals we know which is known as 'particularized trust' (Fukuyama 1995a); and the trust we have in those we don not know, but the trust arises because of our confidence in a known social structure, 'generalized trust' (Knack and Keffer 1995). And the third one is the type of trust that we have in the formal institutions, which is known as 'confidence in institution'. All trust variables of the household have been taken in the analysis of community efficacy assuming that there will be a positive relationship and the higher the level of trust, the higher the community efficacy would be.

Reciprocity. Reciprocity and exchanges also increase trust. There are two types of reciprocity (Coleman 1990; Putnam et al. 1993): specific reciprocity which refers to simultaneous exchanges of items of roughly equal value; and diffuse reciprocity refers to a continuing relationship of exchange that at any given time may be unreturned, but overtime is repaid and balanced. Again, this contributes to the development of long-term obligations between people, which can be an important part of achieving positive environmental outcomes. Norms of reciprocity, which entails mutual aid, are dependent on social networks. Bonding networks that connect individuals who are members of a certain group or association sustain particularized reciprocity (Putnam et al. 1993). Bridging networks that connect individuals who are diverse sustain generalized reciprocity (Putnam et al. 1993). Therefore, it is hypothesized that a high level of reciprocity in a community would increase a community efficacy.

#### 4. Human and economic characteristics

There is a direct relationship between community efficacy and human and economic characteristics of inhabitants in a community. A community with limited human resources (e.g. education) and economic resources (e.g. welfare status) is less likely to be engaged in locally oriented collective action towards a generalized interest (Parisi et al. 2002). In such conditions, at least theoretically, individuals of a local population are unable to realize the importance of their common values with respect to the well being of the community as a whole (Sampson, Morenoff and Earls 1999). In this respect poor human and economic resources in a local population can translate into a diminished capacity for community efficacy.

Education. The hypothesis for the education variable is that the higher the number of illiterates in a community the lower the community efficacy would be. This assumption was based on previous results that found poor men and women, in urban areas are often deprived of information and knowledge (Schilderman 2002). Poor illiterate inhabitants, not knowing about their rights, services they could access, plans for their area, or what options there are for tackling certain problems, tend not to favour collective action in the community. Moreover, most of the illiterate people are engaged in subsistence activities, whereby they spend much of their time for it. In our study, most of the respondents in the in-depth interview, clearly explained that the majority of the poor were casual labour, artisan work, petty-food trading, selling of "Tela" and "Areki"(traditional home made alcoholic drink), and baking and selling of "Enjera"(traditional food). Hence, time is highly scarce and precious asset for the very poor, a factor, which could pull them back from participating in collective action resulting in a low level of community efficacy.

Tenure status. The poor who are unable to gain access to legal shelter with formal title, tenure security and the risk of eviction are of great importance. Informal categories of housing, unauthorised land sub-divisions and houses built or expanded without permits are found across the study areas. Even on a single plot many forms of tenure exist. For example, tenants let out rooms to sub-tenants to many people to spend the night, which is considered by the Kebele officials as an illegal conduct. Therefore, it is hypothesised that inhabitants in the community with tenure status other than owner are very unlikely to favour collective action for mutual benefit of the community.

Poverty. The urban poor are not a homogeneous group: social exclusion affects some people, particularly the very poor, women, leading to inadequate access to information. Hence it is hypothesized that the household with poor welfare category would not favour collective action.



## Summary

The forgoing discussion provides the basis for our conceptual framework. There are two dimensions of social capital that can be linked to community efficacy. First, actors of community must be self-motivated, and second, they must engage in reciprocal exchange and networked formally and informally. Consequently, we expect that higher level of membership in local associations, reciprocal exchange and trust in the community and confidence in governmental institutions will increase capacity for community efficacy. Similarly we hypothesis also that communities endowed with higher levels of human and economic resources will have higher level of community efficacy.

## 5. Methodology

### Data Source and Study Area

Addis Ababa, the capital of Ethiopia and the study area, accommodates about 2.8 million inhabitants currently (UN, 2001), in its six 'zones' and 28 'Weredas' (CSA, 1999). The total area of the city is 540 square kms; out of which 18174 square kms is the fringes inhabited by peasants (AAMPRPO 1999). Addis Ababa is divided into 305 urban Kebeles and 23 rural farmers associations (AAMPRPO 1999:2). The city administration is structured hierarchically from top-down: 'city council'- 'Zone'- 'Wereda'- 'Kebele' respectively. A 'Kebele' is the smallest administrative units, while 'Wereda' and 'Zone' administrations play an intermediary role in the hierarchy.

The data set for this paper came from the household survey conducted in 16 'Kebeles', selected randomly from 8 'Weredas', which are, according to the city planning unit and World Bank, classified as very poor part of Addis Ababa based on infrastructure and housing conditions. Data was collected from a total of 497 sampled households using stratified random selection techniques from the 16 Kebeles. The survey was targeted to capture information on household. Head of the household were asked information on socio-economic and demographic characteristics of the household; characteristics of the most important local associations or groups; perception of generalized and particularized trust; reciprocity, collaboration and participation in collective action. In addition, at the community level in-depth interviews and focus group discussion with leaders of community and local association (*Ider*, *Mehaber* etc.) and other key informants were held to get a detail perspective on the function of the local association.

## 6. Analytical Framework

The analysis of community efficacy was done using logistic regression model:

$$Ci = f(SC_i, Di, Hi, SE_i, \dots) \quad (1)$$

Where  $C_i$  = collective action (if the household has been participated in a collective action for the last ten year);  $SC_i$ =social capital dimensions;  $Di$  = demographic characteristics of the head of the household, such as sex and age;  $Hi$ = household characteristics such as tenure

status; SEi= Socio-economic characteristics such as level of education of head of the household and the wealth status of the household.

The dependent variable is collective action, which is participation of the households in "collective action" for mutual community benefit as a proxy for community efficacy. In the household survey respondents were asked if they participated in collective action for infrastructure development within the locality in the last ten year. Accordingly, the dependent variable is dichotomous, which takes 1 if the  $i^{th}$  household had participated in collective action and 0 otherwise. The explanatory variables are social capital dimensions and other socio-economic variables of the household, which are categorical and scale in nature. It is generally assumed that participation of the household, within the community, in collective action is subject to various limitations and opportunities. Based on this assumption, the following explanatory variables are considered in the analysis.

Social capital measures. Following (Guest and Lee 1983; Putman 1995; Putnam 2000; Stone 1989) seven conditions were used to operationalise social capital at the household level: (1) Density of membership, i.e. number of association per household; (2) Active participation of members in the association where they are members; (3) Informal network as different activities which generates networking with others without being member of association; (4) Generalized trust in the community(Fukuyama 1995a); (5) Particularized trust - trust in very close neighbours or friends; (6) Confidence in institutions, local governmental institutions; (7) Confidence in NGOs.

***Socio-economic variables.*** For socio-economic aspects, six variables have been considered.

(1) Education: It is measured as a dummy variable where 1 is given for literate household heads and 0 otherwise,

(2) Housing tenure status: 1 if the household owns the house where it is living in and 0 otherwise,

(3) Gender: 1 if the household head is male and 0 otherwise,

(4) Poverty status: it is calculated using wealth index and classifying the household in three category- 'poor', 'moderate', and 'better off'. The index calculation included data on twenty-three asset indicators that can be grouped into three types: household ownership of consumer durables with 12 questions (Iron, Clock, Sofa, Radio, TV, Sewing Machine, Refrigerator, Electrical mitad, Tape player, Bicycle, Car, Telephone); characteristics of the household's dwelling with 11 indicators (three about toilet facilities, three about the source of drinking water, one about rooms in the dwelling, two about the dwelling materials used, one about the main source of light and one about main sources of cooking). Using principal component analysis for the whole twenty-three variables we construct an index (the scoring factors are attached in appendix B).

Table 1. Household's descriptive statistics

Variables	Mean	SD	Min.	Max
Collective action	0.63	0.48	0.00	1.00
Social capital dimensions				
Density of Membership	3.0	0.82	2.0	6.00
Active Participation	23.59	21.27	0.00	100.00
Reciprocity	53.87	26.23	0.00	100.00
Informal network	34.16	14.15	0.00	66.67
Generalized trust	62.37	33.55	0.00	100.00
Particularized trust	67.37	13.26	0.00	75.00
Trust in local Institutions	33.41	25.63	0.00	100.00
Socio-economic variables				
Housing tenure	0.33	0.45	0.00	1.00
Wealth index				
Poor	0.32	0.46	0.00	1.00
Moderate	0.34	0.47	0.00	1.00
Better off	0.33	0.47	0.00	1.00
Education				
Non-educated	0.27	0.44	0.00	1.00
Primary	0.38	0.48	0.00	1.00
Secondary +	0.35	0.48	0.00	1.00
Gender	0.51	0.50	0.00	1.00

$$\log\left(\frac{P_i}{1-P_i}\right) = \beta_0 + \beta_i X_i \quad (2)$$

$P_i$  = Estimated expected probability of experiencing collective action towards infrastructure development in the locality;

$1-P_i$  = Estimated probability of not experiencing collective action;

$\beta_0$  = Estimated vector of log-odds of the probability of experiencing collective action when the vector  $\beta_i$  equals 0

$\beta_i$  = Estimated vector of the log-odds of the probability of experiencing collective action for each unit change in the corresponding vector of independent variables;

$X_i$  = A vector of explanatory variables

Here, the log-odds [ $\ln (P_i/1-P_i)$ ] of the probability of experiencing collective action efficacy is a linear additive function of the vector of the independent variables. However, because log-odds (logit) make little intuitive sense, this model can be transformed into the following multiplicative probability model:

$$\left(\frac{P_i}{1-P_i}\right) = e^{\beta_0 + \beta_i X_i} \quad (3)$$

This exponential relationship implies that, for every unit increase in the independent variable, there is a multiplicative effect on the odds of the experience community efficacy.

## 7. Analysis of the result

Equation (2) is estimated to empirically examine the impact of social capital and other human and economic factors on collective action. The result from the model indicates a positive and highly significant relationship between the active participation variable and collective action. Households who are active participant in their local associations are more likely to participate in collective action. This could be due to the “social” nature of “social capital” (Grootaert 1999). Networks and interactions engaged in as part of social and other objectives perceived from higher participation in the activities, which benefit the community at large.

Confidence in governmental and non-governmental organization was not found to be statistically significant in the logistic regression. With respect to the confidence in governmental organization, in the qualitative survey, people were asked about the level of satisfaction on the public service provision by the governmental organization. It has been found that no respondent was completely satisfied with any service. Levels of dissatisfaction varied between services and communities. The service with which most people claimed to have problems was on those services, which supposed to be provided by the municipality. Almost all the focus group discussant and interviewees in the in-depth interview expressed their depth of dissatisfaction towards these formal local institutions. The discontent emanated in part due to levels of corruption and lack of capacity, which were considered highest in most of the cases. Of course, corruption and injustices could be one of the possible reasons for low level of confidence in the governmental institutions.

The other noteworthy observation from collective action regression results is that households with better Informal network, reciprocity, and generalized trust are more likely to participate in collective action. This result is plausible under the assumption that people are willing to participate in collective action if they believe that others will<sup>1</sup>. Moreover, these variables are indicators of a strong social tie in the community. And social ties may be considered as sign of “subjective interest” in the community (Oliver and Marwell 1988; Oliver 1984), as factors affecting the availability of solidarity incentives for participation in collative action, or as factors reducing transaction cost.

Table 2 Logistic result on determinants of collective action

---

<sup>1</sup> For further explanation in the interaction between beliefs about other’ willingness to contribute to collective action and character of collective good see the work of Oliver et al. (1988)

Dependent variable	Collective action	
Independent variable		
Constant	-19.810***	5.216
Social Capital Dimensions		
Density of membership	1.953***	0.557
Active participation	0.056***	0.020
Reciprocity	0.089***	0.019
Informal notebook	0.182***	0.042
Generalize trust	0.057***	0.014
Particularized trust	-0.086***	0.028
Trust in local Institutions	0.012	0.015
Socio-economic variables		
Housing tenure	-1.222 *	0.762
Wealth index		
(Poor)	1.289	1.596
Gender (Male)	0.622	0.720
Education		
Non-educated	0.183	0.898
Primary	0.147	0.840
Number of observation	497	
Log Likelihood	71.879	
Chi-square	520.916	
Significant level	.000	

\*\*\* Significant at less than 1 percent level

\* \* Significant at less than 5 percent level

\* Significant at less than 10 percent

The education variable took the unexpected positive sign. Though the coefficients are statistically insignificant the results showed that educated people are less likely to participate compared to illiterate ones. Despite its insignificance the welfare variable shows negative relationship with collective action. The poor are less likely to participate in collective action compared to the better off. Poor people are more concerned for survival; they spent much of their time and energy for a hand-to-mouth livelihood, which engenders failure to participate in collective action. Even the cost of participation would be expensive.

Needless to say, if communities are characterized by serious power imbalances, it could impinge severe constraints on community efficacy. Especially, if the poor were heavily dependent on vertical links with local elites, it would be problematic to use the horizontal associations necessary for organizing collective action for the collective good or mutual benefit. However, in the case of Ethiopia where land is public property and where the poor people's dependence on local elites is very low, danger of 'local capture' (Das Gupta, Grandvoinnet and Romani 2003) considered to be minimal.

Tenure is also found to be significant in explaining collective action at 5 percent level of significance. However, it has a negative sign, which signifies an inverse relationship, showing

more likelihood for renter to participate in collective action compared to the homeowner. However, it is not appropriate to deduce that inhabitants with insecure tenure right have more incentive for collective action. It is expected that homeowners anticipate living in their residence for a long time and will thus look forward to an extended future stream of benefits from any improved service and would act collectively for that. In the current situation the housing provision in Ethiopia is rigid, regulated and government owned most of the rental housing units, whereby the majority of renters expect to see the same long-term benefits and therefore have the same incentives as owners to act collectively for the betterment of their environment. Both renters and homeowners tend to have lived in the community for a longer time.

## 8. Summary and conclusion

The main objective of this study was to address the basic question that is 'whether and how can social capital determine the community efficacy in poor urban localities?' Answering this question can help to understand how to use the existing stock of social capital for community improvement projects. We used household survey and qualitative research, in selected poor-neighbourhoods in Addis Ababa to analyse the level of social capital at the household level and its impact on collective action. The multivariate analysis indicated that the extent to which a household can engage in locally oriented collective action rest on the level of social capita and other human and economic variables.

Our findings offer several important new insights into prevailing theories of social organization. First, contrary to the image of poor localities as socially isolated places where residents withdraw from community life out of fear or apathy, our results indicate that residents of poor localities respond to adverse ecological conditions through actions intended to alleviate community problems and getting involved in collective action. Moreover, residents of poor localities also tend to have strong personal networks connecting them to friends and neighbors in their localities. Second, the findings suggest that high level of social capital appear to function as signals of community capacity that motivate residents to become engaged in collective actions. We note, however, that these inferences are based on cross-sectional data, and that further research is needed on the connection between poor localities contexts and community efficacy, preferably using longitudinal data that can link individuals' perceptions of localities conditions to their subsequent participation in community activities

In conclusion, our results have significant implications for those interested in harnessing the power of communities to address localities problems. We believe that the approach outlined in this paper provides a conceptual and empirical platform to address the issue of collective action in poor urban localities. The contribution of this approach is that it can be provided a useful tool to examine collective action in poor urban localities and assist community researchers, practitioners and policy makers in establishing variations in capacity of the community for community development purpose.

## References

- AAMPRPO. 1999. "A study for Restructuring Kebele Boundaries in the City of Addis Ababa(Unpublished)". Addis Ababa: Addis Ababa Master Plan Revision Project Office.
- Baland, J.-M., and J.-P. Platteau. 1997. "Wealth inequality and efficiency in the commons, Part I: The unregulated case." *Oxford Economic Papers* 49:451-482.
- Bourdieu, P. (Ed.). 1986. *The forms of capital*. New York: Greenwood Press.
- Burt, R.S. 2000. "The network structure of social capital." in *Research in Organizational Behaviour*, edited by R.I. Sutton and B.M. Staw. Greenwich: JAI,CT.
- Castlle, E.N. 1998. "A conceptual framework for the study of rural places." *American Journal of Agricultural Economics* 80:621-631.
- Coleman, J. 1988. "Social capital in creation of human capital." *American Journal of Sociology*. Supplementary : S95-S120.
- . 1990. *Foundation of Social Theory*. Cambridge: Harvard University Press.
- Das Gupta, Monica., Helene. Grandvoinnet, and Mattia. Romani. 2003. "Fostering community-driven development: what role for the state?" *World Bank Policy Research Working Paper* 2969, January 2003.
- Dejene, Aredeo. 1993. "The Idder: A Study of an Indigenous Informal Financial Institution in Ethiopia." *Finafrica*: 77-90.
- . 2001. "NGOs and Self-help Organizations in Addis Ababa: The case of Ider." in paper presented at the workshop on Self-help Initiative in Ethiopia. Addis Ababa.
- DeVellis, R.F. 1991. *Scale Development: theory and Application*. Newbury Park: Sage.
- Evers, Hans-Dieter, and Rüdiger Korff. 1986. "Subsistence Production in Bangkok." *Development*: 50-55.
- . 2000. *Southeast Asian Urbanism: the meaning and power of social space*. New York: St. Martin's Press.
- Flora, Jan L., J. Sharp, C. Flora, and B. Newlon. 1997. "Entrepreneurial social infrastructure and locally initiated economic development in the non-metropolitan USA." *Sociology Quarterly*: 623-645.
- Frankfort, N. Chava, and J. John Palen. 1993. "Neighbourhood revitalization and the community question." *The community development society* 24:1-14.
- Fukuyama, F. 1995a. *Trust: The social virtues and the creation of prosperity*. New York: Free Press.
- . 1995b. "Social capital and the global economy." *Foreign Affairs* 74:89-103.

Gronovetter, M. 1985. "Economic action and social structure." *American Journal of Sociology* 91:481-510.

Grootaert, C. 1999. "Social capital, household welfare and poverty in Indonesia: local level institutions study." Working Paper No. 6, Social Development Department, World Bank.

Guest, Avery M, and Barret A. Lee. 1983. "The Social Organization of Local Areas." *Urban Affairs Quarterly*: 217-240.

Knack, S., and P. Keefer. 1995. "Institutions and Economic Performance: Cross-Country Tests Using Alternative Institutional Measures." *Economics and Politics* 7:207-27.

Levine, N. Donalds. 1965. *Wax and Gold: Tradition and Innovation in Ethiopia*. Chicago: University of Chicago press.

Morenoff, Jeffrey D., Robert J. Sampson, and Stephen W. Raudenbush. 2001. "Neighbourhood Inequality, Collective Efficacy, and the Spatial Dynamics of Urban Violence." *Criminology* 39:517-561.

Moser, C.O.N. 1998. "The asset vulnerability framework: reassessing urban poverty strategies." *World Development* 26:1-19.

Narayan, D. 1999. "Bond and Bridges: Social Capital and Poverty." Working Paper #2167, World Bank, Washington, DC.

Narayan, Deepa. 1995. "Designing Community-Based Development." Social Development Paper 7, World Bank, Environmentally and Socially Sustainable Development Network, Washington, D.C.

Narayan, D., and L. Pritchett. 1997. "Cents and Sociability: Household Income and Social Capital in Rural Tanzania." World Bank Research Working Paper No. 1796. Washington DC: World Bank.

Oliver, Pamela E., and Gerald. Marwell. 1988. "The Paradox of Group-Size in Collective Action - a Theory of the Critical Mass 2." *American Sociological Review* 53:1-8.

Oliver, Pamela. 1984. "If you don't do it, nobody else will: active and token contributors to local collective action." *American Sociological Review* 49:601-610.

Ostrom, E. 1998. "A behavioural approach to the rational choice theory of collective action." *Am. Political Soc. Rev.* 92.

Parisi, Domenico., M. Steven. Grice, Michael. Taquino, and . A. Duane. Gill. 2002. "Building capacity for community efficacy for economic development in Mississippi." *Journal of The Community Development Society* 33:19-38.

Pender, John, and Sara J. Scherr. 1999. "Organizational Development and Natural Resource Management: Evidence from Central Honduras." Environment and Production Technology Division, International Food Policy Research Institute. (Series: EPTD Discussion Paper). (Working Paper) <http://dlc.dlib.indiana.edu/documents/dir0/00/00/04/67/>.



Perkins, D. Douglas, P. Florin, R.C. Rich, and A. Wandersman. 1990. "Participation and the social and physical environment of residential block: Crime and community context." *American Journal of Community Psychology* 18:83-115.

Portes, A., and J. Sensenbrenner. 1993. "Embeddedness and immigration: note on the social determinants of economic action." Pp. 127-149 in *The new institutionalism in sociology*, edited by M.C. Brinton and V. Nee. New York: Russell Sage Foundation.

Putman, R. D. 1995. "Comment on The Institutions and Governance of Economic Development and Reform." Pp. 198-200 in *World Bank Annual Conference on Development Economics, 1994*, edited by M Bruno and Pleskovic B. Washington, D.C: World Bank.

Putnam, R.D. 2000. *Bowling Alone*. New York: The Brooking Institution Press.

Putnam, R.D., R. Leonardi, and R. Nanetti. 1993. *Making Democracy Work: Civic Traditions in Modern Italy*. Princeton: NJ:Priceton University Press.

Richard, Patricia, and Bryan Roberts. 1998. "Social Network, Social Capital, Popular Organizations, and Urban Poverty: A research Note." in *Presented at the Seminar on Urban Poverty Sponsored by ALOP and The World Bank*. Rio de Janeiro, May 14-16, 1998.

Rudd, M.A. . 2000. "Live Long and Prosper: Collective Action, Social Capital and Social Vision." *Ecological Economics* 34:131-44.

Sampson, Robert J. 1988. "Local Friendship Ties and Community Attachment in Mass Society: A Multilevel Systematic Model." *American Sociological Review*: 766-779.

Sampson, Robert J., D. Jeffrey. Morenoff, and Felton Earls. 1999. "Beyond Social Capital: Spatial Dynamics of Collective Efficacy for Children." *American Sociological Review* 64:633-660.

Sampson, Robert J., Stephen W. Raudenbush, and Felton Earls. 1997. "Neighbourhoods and Violent Crime: A Multilevel Study of Collective Efficacy." *Science* 277:918-924.

Savage, Mike, Alan Warde, and Kevin Ward. 2003. *Urban Sociology, Capitalism and Modernity: Sociology for a changing world*: Palgrave MacMillan.

Schilderman, T (Ed.). 2002. *Strengthening the Knowledge and Information Systems of the Urban Poor*: ITDG, Rugby, UK.

Shack, N.A. 1973. "Urban Ethnicity and the Cultural Process of Urbanization in Ethiopia." Pp. Pages 251-285 in *Urban Anthropology: Cross Cultural Studies of Urbanization*, edited by A. Southall.

Stone, Linda. 1989. "Cultural Crossroads of Community Participation in Development: A Case from Nepal." *Human organization* 48:206-213.

Tirfe, Mammo. 1999. *The Paradox of African Poverty: The role of indigenous knowledge, traditional practices and local institutions- the case of Ethiopia*. Asmara: The Red Sea Press.

Unger, D. G., and A. Wandersman. 1982. "Neighbouring in urban environment." *American Journal of Community Psychology* 10:493-509.

Woolcock, M., and D. Nayaran. 2000. "Social Capital: Implications for Development Theory, Research and Policy." *World Bank Research Observer* 15:225-50.

## Appendix A: Scale items and robustness

We evaluated the scales (set out below) using a 'scale reliability analysis' test, which determines whether we can consider the responses to each question to follow a similar pattern, tapping into one underlying concept or 'latent' variable (DeVellis 1991:9). Once the scales were formed, we converted each into true values between -1 and 1 for consistency. We formed the associational membership scale by a simple addition of the number of associations to which each respondent belonged. If a sufficient value of the test statistic, Cronbach's alpha, is obtained then we can add the values of the questions together to form a single scale. We can then treat this scale as a real number series and perform more complex statistical procedures in order to test the degree to which the variables predict collective action. Low alpha values indicate that responses to the questions are too diverse and would not form a consistent scale. The alpha values we obtained, between 0.76 and 0.90, are all in the optimum range (DeVellis 1991: 85)

### *Density of membership*

Are you a member of any of the following:

- Church or Religious group
- Social support group (Ider)
- Sporting club
- Ethnic based association
- Group dedicated to some cause (e.g. Community development)
- Kebele association
- Finance, credit, saving group (Eqube)
- Political Party
- Professional associations
- Other association (Please specify)

No. of membership added together.

### *Active participation*

To what extent do you participate in the activities of the first, second and third very important association for your life?

- Active participation of members in their first very important association
- Active participation of members in their second very important association
- Active participation of members in their third very important association

Scale 1 'not very active' 2 'somewhat active' 3 'very active'. Standardised item alpha = 0.82

### *Informal networks*

- Visit neighbours frequently?
- Spend time together with other people out of home for shopping, drinking or recreation?
- Asking neighbours for help in case of sickness?
- Helping neighbours, when sick, to take to hospital or clinic?

Scale from 1 'Yes' and 2 'No'. Standardized item alpha = 0.81

### *Generalized trust*

- Generally speaking, would you say most people living in this neighbourhood could be trusted?
- Do you think most people would try to take advantage of you if they got the chance or would they try to be fair?

Scale from 1 'Yes' and 2 'No'. Standardized item alpha = 0.81

### *Particularized trust*

Do you know your neighbours well enough to:

- Have a child minded in an emergency?
- Have children minded regularly?
- Borrow money or anything if needed
- Have a talk with you if you're feeling down?
- Keep an eye on your home for you if you go away?

Standardized item alpha = 0.90

### *Reciprocity*

- Invite neighbours during religious and social fests or any happy occasions?
- Do share or borrow household utensils from their neighbours?
- Do attend funeral service in the neighbourhood even if they are not member of the Ider?
- Bring drink/food after funeral to the mourning family?

Standardized item alpha = 0.81

### *Confidence in Institutions*

How much confidence do you have in:

- Local government?
- Judge/court/ police?
- Public services?
- NGOs?
- Scale from 1 'very great deal' to 5 'None'. Standardised item alpha = 0.76

## Appendix B

Table Scoring factors summary statistics for variables entering the computation of first principal component in Addis Ababa, 2001

Assets	Scoring factors	Mean	Std. Dev.	Scoring factor	Poor	Moderate	Better off
Own iron	0.607	0,15	0,360	1.685	0.00	4.20	41.80
Own clock/watch	0.558	0,34	0,476	1.173	2.40	34.70	66.10
Own sofa	0.770	0,42	0,494	1.558	1.80	31.70	92.00
Own radio	0.324	0,73	0,443	0.731	53.30	78.40	87.90
Own TV	0.737	0,35	0,479	1.540	1.80	23.40	81.20
Own sewing machine	0.214	0,03	0,177	1.210	1.20	1.20	7.30
Own refrigerator	0.645	0,13	0,333	1.938	0.00	0.00	38.20
Own tape player	0.454	0,65	0,477	0.950	33.90	73.70	87.30
Own electric metad	0.698	0,32	0,467	1.495	0.00	21.60	74.50
Own bicycle	0.242	0,01	0,100	2.418	0.00	0.00	3.0
Own car	0.412	0,05	0,215	1.921	0.00	0.00	14.50
Own telephone	0.695	0,30	0,459	1.516	0.60	16.80	72.70
Drinking water from own tape	0.686	0,416	0,493	1.391	1.20	41.30	82.40
Drinking water from shared tape	-0.638	0,521	0,500	-1.275	90.30	51.50	14.50
Other sources	-0.082	0,062	0,242	-0.338	8.50	7.20	3.00
Flush toilet	0.166	0,084	0,278	0.595	6.70	6.00	12.70
Pit latrine	0.202	0,718	0,450	0.448	59.40	73.70	82.40
No toilet	-0.344	0,197	0,398	-0.863	33.90	20.40	4.80
Main source of lighting electric	0.000	0,036	0,187	0.000	1.8	6.00	3.00
Number of rooms in dwelling	0.639	2,22	1,15	0.556	1.53	2.05	3.09
Main cooking fuel is biomass: wood/coal/sawdust	-0.044	0,959	0,196	-0.221	97.00	95.20	95.80
Floor of the house mud	-0.527	0,398	0,490	-1.076	75.80	33.50	10.30
House without window	-0.379	0,136	0,344	-1.101	30.90	9.60	0.60

Note: Each variable besides number of rooms takes the value 1 if true, 0 otherwise. Scoring factor is the "weight" assigned to each variable (normalized by its mean and standard deviations) in the linear combination of the variables that constitute the first principle component. The proportion of the covariance explained by the first principle component is 25 percent. The value of the first eigen value is 5.87 and that of the second eigen value is 2.00. Source: calculation from the survey result.

- 1 Evers, Hans-Dieter and Solvay Gerke (2005). Closing the Digital Divide: Southeast Asia's Path Towards a Knowledge Society.
- 2 Bhuiyan, Shajahan and Hans-Dieter Evers (2005). Social Capital and Sustainable Development: Theories and Concepts.
- 3 Schetter, Conrad (2005). Ethnicity and the Political Reconstruction of Afghanistan.
- 4 Kassahun, Samson (2005). Social Capital and Community Efficacy. In Poor Localities of Addis Ababa Ethiopia.
- 5 Fuest, Veronika (2005). Policies, Practices and Outcomes of Demand-oriented Community Water Supply in Ghana: The National Community Water and Sanitation Programme 1994 – 2004.
- 6 Menkhoff, Thomas and Hans-Dieter Evers (2005). Strategic Groups in a Knowledge Society: Knowledge Elites as Drivers of Biotechnology Development in Singapore.
- 7 Mollinga, Peter P. (2005). The Water Resources Policy Process in India: Centralisation, Polarisation and New Demands on Governance.
- 8 Evers, Hans-Dieter (2005). Wissen ist Macht: Experten als Strategische Gruppe.
- 8a Evers, Hans-Dieter and Solvay Gerke (2005). Knowledge is Power: Experts as Strategic Group.
- 9 Fuest, Veronika (2005). Partnerschaft, Patronage oder Paternalismus? Eine empirische Analyse der Praxis universitärer Forschungskooperation mit Entwicklungsländern.
- 10 Laube, Wolfram (2005). Promise and Perils of Water Reform: Perspectives from Northern Ghana.
- 11 Mollinga, Peter P. (2004). Sleeping with the Enemy: Dichotomies and Polarisation in Indian Policy Debates on the Environmental and Social Effects of Irrigation.
- 12 Wall, Caleb (2006). Knowledge for Development: Local and External Knowledge in Development Research.
- 13 Laube, Wolfram and Eva Youkhana (2006). Cultural, Socio-Economic and Political Constraints for Virtual Water Trade: Perspectives from the Volta Basin, West Africa.
- 14 Hornidge, Anna-Katharina (2006). Singapore: The Knowledge-Hub in the Straits of Malacca.
- 15 Evers, Hans-Dieter and Caleb Wall (2006). Knowledge Loss: Managing Local Knowledge in Rural Uzbekistan.
- 16 Youkhana, Eva, Lautze, J. and B. Barry (2006). Changing Interfaces in Volta Basin Water Management: Customary, National and Transboundary.
- 17 Evers, Hans-Dieter and Solvay Gerke (2006). The Strategic Importance of the Straits of Malacca for World Trade and Regional Development.
- 18 Hornidge, Anna-Katharina (2006). Defining Knowledge in Germany and Singapore: Do the Country-Specific Definitions of Knowledge Converge?
- 19 Mollinga, Peter M. (2007). Water Policy – Water Politics: Social Engineering and Strategic Action in Water Sector Reform.
- 20 Evers, Hans-Dieter and Anna-Katharina Hornidge (2007). Knowledge Hubs Along the Straits of Malacca.
- 21 Sultana, Nayeem (2007). Trans-National Identities, Modes of Networking and Integration in a Multi-Cultural Society. A Study of Migrant Bangladeshis in Peninsular Malaysia.
- 22 Yalcin, Resul and Peter M. Mollinga (2007). Institutional Transformation in Uzbekistan's Agricultural and Water Resources Administration: The Creation of a New Bureaucracy.
- 23 Menkhoff, T., Loh, P. H. M., Chua, S. B., Evers, H.-D. and Chay Yue Wah (2007). Riau Vegetables for Singapore Consumers: A Collaborative Knowledge-Transfer Project Across the Straits of Malacca.
- 24 Evers, Hans-Dieter and Solvay Gerke (2007). Social and Cultural Dimensions of Market Expansion.
- 25 Obeng, G. Y., Evers, H.-D., Akuffo, F. O., Braimah, I. and A. Brew-Hammond (2007). Solar PV Rural Electrification and Energy-Poverty Assessment in Ghana: A Principal Component Analysis.
- 26 Eguavoen, Irit; E. Youkhana (2008). Small Towns Face Big Challenge. The Management of Piped Systems after the Water Sector Reform in Ghana.
- 27 Evers, Hans-Dieter (2008). Knowledge Hubs and Knowledge Clusters: Designing a Knowledge Architecture for Development
- 28 Ampomah, Ben Y., Adjei, B. and E. Youkhana (2008). The Transboundary Water Resources Management Regime of the Volta Basin.
- 29 Saravanan.V.S.; McDonald, Geoffrey T. and Peter P. Mollinga (2008). Critical Review of Integrated Water Resources Management: Moving Beyond Polarised Discourse.
- 30 Laube, Wolfram; Awo, Martha and Benjamin Schraven (2008). Erratic Rains and Erratic Markets: Environmental change, economic globalisation and the expansion of shallow groundwater irrigation in West Africa.
- 31 Mollinga, Peter P. (2008). For a Political Sociology of Water Resources Management.
- 32 Hauck, Jennifer; Youkhana, Eva (2008). Histories of water and fisheries management in Northern Ghana.
- 33 Mollinga, Peter P. (2008). The Rational Organisation of Dissent. Boundary concepts, boundary objects and boundary settings in the interdisciplinary study of natural resources management.
- 34 Evers, Hans-Dieter; Gerke, Solvay (2009). Strategic Group Analysis.
- 35 Evers, Hans-Dieter; Benedikter, Simon (2009). Strategic Group Formation in the Mekong Delta - The Development of a Modern Hydraulic Society.
- 36 Obeng, George Yaw; Evers, Hans-Dieter (2009). Solar PV Rural Electrification and Energy-Poverty: A Review and Conceptual Framework With Reference to Ghana.
- 37 Scholtes, Fabian (2009). Analysing and explaining power in a capability perspective.
- 38 Eguavoen, Irit (2009). The Acquisition of Water Storage Facilities in the Abay River Basin, Ethiopia.
- 39 Hornidge, Anna-Katharina; Mehmood Ul Hassan; Mollinga, Peter P. (2009). 'Follow the Innovation' – A joint experimentation and learning approach to transdisciplinary innovation research.
- 40 Scholtes, Fabian (2009). How does moral knowledge matter in development practice, and how can it be researched?
- 41 Laube, Wolfram (2009). Creative Bureaucracy: Balancing power in irrigation administration in northern Ghana.
- 42 Laube, Wolfram (2009). Changing the Course of History? Implementing water reforms in Ghana and South Africa.

- 43 Scholtes, Fabian (2009). Status quo and prospects of smallholders in the Brazilian sugarcane and ethanol sector: Lessons for development and poverty reduction.
- 44 Evers, Hans-Dieter, Genschick, Sven, Schraven, Benjamin (2009). Constructing Epistemic Landscapes: Methods of GIS-Based Mapping.
- 45 Saravanan V.S. (2009). Integration of Policies in Framing Water Management Problem: Analysing Policy Processes using a Bayesian Network.
- 46 Saravanan V.S. (2009). Dancing to the Tune of Democracy: Agents Negotiating Power to Decentralise Water Management.
- 47 Huu, Pham Cong, Rhlers, Eckart, Saravanan, V. Subramanian (2009). Dyke System Planing: Theory and Practice in Can Tho City, Vietnam.
- 48 Evers, Hans-Dieter, Bauer, Tatjana (2009). Emerging Epistemic Landscapes: Knowledge Clusters in Ho Chi Minh City and the Mekong Delta.
- 49 Reis, Nadine; Mollinga, Peter P. (2009). Microcredit for Rural Water Supply and Sanitation in the Mekong Delta. Policy implementation between the needs for clean water and 'beautiful latrines'.
- 50 Gerke, Solvay; Ehlert, Judith (2009). Local Knowledge as Strategic Resource: Fishery in the Seasonal Floodplains of the Mekong Delta, Vietnam
- 51 Schraven, Benjamin; Eguavoen, Irit; Manske, Günther (2009). Doctoral degrees for capacity development: Results from a survey among African BiGS-DR alumni.
- 52 Nguyen, Loan (2010). Legal Framework of the Water Sector in Vietnam.
- 53 Nguyen, Loan (2010). Problems of Law Enforcement in Vietnam. The Case of Wastewater Management in Can Tho City.
- 54 Oberkircher, Lisa et al. (2010). Rethinking Water Management in Khorezm, Uzbekistan. Concepts and Recommendations.
- 55 Waibel, Gabi (2010). State Management in Transition: Understanding Water Resources Management in Vietnam.
- 56 Saravanan V.S., Mollinga, Peter P. (2010). Water Pollution and Human Health. Transdisciplinary Research on Risk Governance in a Complex Society.
- 57 Vormoor, Klaus (2010). Water Engineering, Agricultural Development and Socio-Economic Trends in the Mekong Delta, Vietnam.
- 58 Hornidge, Anna-Katharina, Kurfürst, Sandra (2010). Envisioning the Future, Conceptualising Public Space. Hanoi and Singapore Negotiating Spaces for Negotiation.
- 59 Mollinga, Peter P. (2010). Transdisciplinary Method for Water Pollution and Human Health Research.
- 60 Youkhana, Eva (2010). Gender and the development of handicraft production in rural Yucatán/Mexico.
- 61 Naz, Farhat, Saravanan V. Subramanian (2010). Water Management across Space and Time in India.
- 62 Evers, Hans-Dieter, Nordin, Ramli, Nienkemoer, Pamela (2010). Knowledge Cluster Formation in Peninsular Malaysia: The Emergence of an Epistemic Landscape.
- 63 Mehmood Ul Hassan, Hornidge, Anna-Katharina (2010). 'Follow the Innovation' – The second year of a joint experimentation and learning approach to transdisciplinary research in Uzbekistan.
- 64 Mollinga, Peter P. (2010). Boundary concepts for interdisciplinary analysis of irrigation water management in South Asia.
- 65 Noelle-Karimi, Christine (2006). Village Institutions in the Perception of National and International Actors in Afghanistan. (Amu Darya Project Working Paper No. 1)
- 66 Kuzmits, Bernd (2006). Cross-bordering Water Management in Central Asia. (Amu Darya Project Working Paper No. 2)
- 67 Schetter, Conrad, Glassner, Rainer, Karokhail, Masood (2006). Understanding Local Violence. Security Arrangements in Kandahar, Kunduz and Paktia. (Amu Darya Project Working Paper No. 3)
- 68 Shah, Usman (2007). Livelihoods in the Asqalan and Sufi-Qarayateem Canal Irrigation Systems in the Kunduz River Basin. (Amu Darya Project Working Paper No. 4)
- 69 ter Steege, Bernie (2007). Infrastructure and Water Distribution in the Asqalan and Sufi-Qarayateem Canal Irrigation Systems in the Kunduz River Basin. (Amu Darya Project Working Paper No. 5)
- 70 Mielke, Katja (2007). On The Concept of 'Village' in Northeastern Afghanistan. Explorations from Kunduz Province. (Amu Darya Project Working Paper No. 6)
- 71 Mielke, Katja, Glassner, Rainer, Schetter, Conrad, Yarash, Nasratullah (2007). Local Governance in Warsaj and Farkhar Districts. (Amu Darya Project Working Paper No. 7)
- 72 Meininghaus, Esther (2007). Legal Pluralism in Afghanistan. (Amu Darya Project Working Paper No. 8)
- 73 Yarash, Nasratullah, Smith, Paul, Mielke, Katja (2010). The fuel economy of mountain villages in Ishkamish and Burka (Northeast Afghanistan). Rural subsistence and urban marketing patterns. (Amu Darya Project Working Paper No. 9)
- 74 Oberkircher, Lisa (2011). 'Stay – We Will Serve You Plov!'. Puzzles and pitfalls of water research in rural Uzbekistan.
- 75 Shtaltovna, Anastasiya, Hornidge, Anna-Katharina, Mollinga, Peter P. (2011). The Reinvention of Agricultural Service Organisations in Uzbekistan – a Machine-Tractor Park in the Khorezm Region.
- 76 Stellmacher, Till, Grote, Ulrike (2011). Forest Coffee Certification in Ethiopia: Economic Boon or Ecological Bane?



## ZEF Development Studies

edited by Solvay Gerke and Hans-Dieter Evers

Center for Development Research (ZEF),  
University of Bonn

Shahjahan H. Bhuiyan

*Benefits of Social Capital. Urban Solid Waste Management in Bangladesh*

Vol. 1, 2005, 288 p., 19.90 EUR, br. ISBN 3-8258-8382-5

Veronika Fuest

*Demand-oriented Community Water Supply in Ghana. Policies, Practices and Outcomes*

Vol. 2, 2006, 160 p., 19.90 EUR, br. ISBN 3-8258-9669-2

Anna-Katharina Hornidge

*Knowledge Society. Vision and Social Construction of Reality in Germany and Singapore*

Vol. 3, 2007, 200 p., 19.90 EUR, br. ISBN 978-3-8258-0701-6

Wolfram Laube

*Changing Natural Resource Regimes in Northern Ghana. Actors, Structures and Institutions*

Vol. 4, 2007, 392 p., 34.90 EUR, br. ISBN 978-3-8258-0641-5

Lirong Liu

*Wirtschaftliche Freiheit und Wachstum. Eine internationale vergleichende Studie*

Vol. 5, 2007, 200 p., 19.90 EUR, br. ISBN 978-3-8258-0701-6

Phuc Xuan To

*Forest Property in the Vietnamese Uplands. An Ethnography of Forest Relations in Three Dao Villages*

Vol. 6, 2007, 296 p., 29.90 EUR, br. ISBN 978-3-8258-0773-3

Caleb R.L. Wall, Peter P. Mollinga (Eds.)

*Fieldwork in Difficult Environments. Methodology as Boundary Work in Development Research*

Vol. 7, 2008, 192 p., 19.90 EUR, br. ISBN 978-3-8258-1383-3

Solvay Gerke, Hans-Dieter Evers, Anna-K. Hornidge (Eds.)

*The Straits of Malacca. Knowledge and Diversity*

Vol. 8, 2008, 240 p., 29.90 EUR, br. ISBN 978-3-8258-1383-3

Caleb Wall

*Argorods of Western Uzbekistan. Knowledge Control and Agriculture in Khorezm*

Vol. 9, 2008, 384 p., 29.90 EUR, br. ISBN 978-3-8258-1426-7

Irit Eguavoen

*The Political Ecology of Household Water in Northern Ghana*

Vol. 10, 2008, 328 p., 34.90 EUR, br. ISBN 978-3-8258-1613-1

Charlotte van der Schaaf

*Institutional Change and Irrigation Management in Burkina Faso. Flowing Structures and Concrete Struggles*

Vol. 11, 2009, 344 p., 34.90 EUR, br. ISBN 978-3-8258-1624-7

Nayeem Sultana

*The Bangladeshi Diaspora in Peninsular Malaysia. Organizational Structure, Survival Strategies and Networks*

Vol. 12, 2009, 368 p., 34.90 EUR, br. ISBN 978-3-8258-1629-2

Peter P. Mollinga, Anjali Bhat, Saravanan V.S. (Eds.)

*When Policy Meets Reality. Political Dynamics and the Practice of Integration in Water Resources Management Reform*

Vol. 13, 216 p., 29.90 EUR, br., ISBN 978-3-643-10672-8

Irit Eguavoen, Wolfram Laube (Eds.)

*Negotiating Local Governance. Natural Resources Management at the Interface of Communities and the State*

Vol. 14, 248 p., 29.90 EUR, br., ISBN 978-3-643-10673-5

William Tsuma

*Gold Mining in Ghana. Actors, Alliances and Power*

Vol. 15, 2010, 256 p., 29.90 EUR, br., ISBN 978-3-643-10811-1

Thim Ly

*Planning the Lower Mekong Basin: Social Intervention in the Se San River*

Vol. 16, 2010, 240 p., 29.90 EUR, br., ISBN 978-3-643-10834-0