



Local Level Institutions

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*Local Level Institutions
Working Paper No. 10*

DOES SOCIAL CAPITAL HELP THE POOR?

A SYNTHESIS OF FINDINGS FROM THE LOCAL LEVEL INSTITUTIONS STUDIES IN BOLIVIA, BURKINA FASO AND INDONESIA

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TABLE OF CONTENTS

	<u>Page</u>
Acknowledgment	iii
1. Introduction: Local Institutions and Social Capital	1
2. The Local Level Institutions Study	4
Bolivia	5
Burkina Faso.....	7
Indonesia	8
3. Local Associations and their Characteristics.....	10
4. Social Capital and Household Welfare	16
5. Social Capital and the Poor	21
6. The Effects of Social Capital: Asset Accumulation, Access to Credit, Collective Action.....	24
7. Summary and Conclusion	28
References	31

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1. INTRODUCTION: LOCAL INSTITUTIONS AND SOCIAL CAPITAL

There is a growing recognition that differences in economic outcomes, whether at the level of the individual or household or at the level of the state, cannot be explained fully by differences in “traditional” inputs such as labor, land, and physical capital. Growing attention is given to the role of “social capital” in affecting the well-being of households and the level of development of communities and nations.

The recognition that social capital is an input in a household’s or a nation’s production function has major implications for development policy and project design. It suggests that the acquisition of human capital and the establishment of a physical infrastructure needs to be complemented by institutional development, at the local and the national level, in order to reap the full benefits of these investments. For example, a well functioning parent-teacher association may be a necessary complement to building schools and training teachers. The promotion of social interaction among poor farmers may need to complement the provision of seeds and fertilizer.

While there are many definitions and interpretations of the concept of social capital, there is a growing consensus that “social capital stands for the ability of actors to secure benefits by virtue of membership in social networks or other social structures” (Portes, 1998, p. 6). If one takes a broad view of what is comprised by these “other social structures,” then social capital is a relevant concept at the micro, meso, and macro levels.¹ At the macro level, social capital includes institutions such as government, the rule of law, civil and political liberties, etc. There is overwhelming evidence that such macro-level social capital has a measurable impact on national economic performance (Knack, 1999). At the micro and meso levels, social capital refers to the networks and norms that govern interactions among individuals, households and communities. Such networks are often (but not necessarily) given structure through the creation of local associations or local institutions.²

¹ Reviews of the social capital literature can be found in Grootaert (1997), Portes (1998), Woolcock (1998) and Narayan and Woolcock (2000). On the role of social capital in sustainable development, see Serageldin (1996).

² We use the term “local institution” interchangeably with “local association” or “local organization”. This follows the practice of most social science literature (Uphoff, 1993), but there is a subtle distinction between the two concepts. Uphoff (1993) defines institutions as “complexes of norms and behaviors that persist over time by serving collectively valued purposes” (p. 614), while organizations are “structures of recognized and accepted roles” (p. 614). Examples of institutions are money, the law, marriage. Organizations are PTAs, workers’ unions, rotating credit associations. In some cases, the two terms overlap: the army is an institution as well as a group of soldiers, the parliament is a law-making institution as well as an association of law makers. As Uphoff (1993) argues, the distinction is a matter of degree, and organizations can become more or less “institutional” over time.

Putnam's (1993) seminal analysis of civic traditions in Italy focused primarily on "horizontal" associations in which members relate to each other on an equal basis, but Coleman (1988, 1990) has argued that social capital can include "vertical" associations as well, characterized by hierarchical relationships and unequal power distribution among members.

The literature contains an impressive and still growing number of case studies which document that local associations play a key role in the success and sustainability of development projects. This has been demonstrated in almost all parts of the world and in sectoral settings ranging from irrigation and water supply, to management of forests and wildlife resources, to the provision of credit to the poor, and the implementation of health service programs.³ The way local associations perform their useful role is centered around three mechanisms: the sharing of information among association members, the reduction of opportunistic behavior, and the facilitation of collective decision making (Grootaert, 1997; Collier, 1998).

At the level of the community, local associations can be a manifestation of social capital. However, it must be emphasized that social capital and local associations are not synonyms. Social capital can and does exist outside the context of local institutions (whether formal or informal). For example, a group of friends or relatives who help each other in times of trouble have social capital but may never embody their bond in an association. Vice versa, the mere presence of an association does not prove the existence of social capital. Local branches of political parties, with mandatory membership, are associations which may display little or no social capital. For that reason, it is important to look at membership conditions (voluntary or not, payment of fees, etc.) and the degree of effective participation in associations before inferring social capital effects.

While the literature on social capital has amply demonstrated the importance of social capital in the context of development projects and the provision of various services, it has not yet demonstrated what the implications of the presence of social capital are for the welfare of households and whether social capital helps the poor.

A notable exception is a recent study by Narayan and Pritchett (1997) which demonstrated econometrically that the ownership of social capital by households in Tanzania has strong effects on households' welfare. The study found that the magnitude of the estimated effect exceeds by far that of education and physical assets owned by the household. However, this study did not address whether social capital is an asset which primarily helps the poor. Indeed, the distribution of social capital, like other forms of capital, could well be skewed in favor of the rich.

³ Many case studies are cited by Uphoff (1993), Narayan (1995), Grootaert (1997), Krishna et al (1997), Uphoff et al (1998), and Woolcock (1998).

The Local Level Institutions Study (LLIS) was designed to investigate more systematically the role of local associations in the provision of services to households and to examine the extent to which such associations help households, especially the poor, increase their welfare. This paper provides a synthesis of the main findings for the three countries of the study: Bolivia, Burkina Faso and Indonesia.⁴

In the next section we describe briefly the data collection of the study. Section 3 discusses the density of local associational life in the three countries, and the main characteristics of associations. Sections 4 and 5 synthesize the findings of the impact of local associations on household welfare and poverty. In Section 6, evidence is given on the role of associations in the accumulation of assets, access to credit and the organization of collective action. A final section proposes a set of policy recommendations.

⁴ This synthesis paper is based primarily on five papers which have analyzed the LLIS data:

- “Local Institutions, Poverty and Household Welfare in Bolivia” (Christiaan Grootaert and Deepa Narayan), LLIS Working Paper No. 9.
- “Local Institutions and Service Delivery in Burkina Faso” (Anand Swamy, Christiaan Grootaert and Gi-Taik Oh), LLIS Working Paper No. 8.
- “Social Capital and Development Outcomes in Burkina Faso” (Christiaan Grootaert, Gi-Taik Oh and Anand Swamy), LLIS Working Paper No. 7.
- “Local Institutions and Service Delivery in Indonesia” (Christiaan Grootaert), LLIS Working Paper No. 5.
- “Social Capital, Household Welfare and Poverty in Indonesia” (Christiaan Grootaert), LLIS Working Paper No. 6.

The full list of LLIS papers can be found on the inside cover of this paper.

2. THE LOCAL LEVEL INSTITUTIONS STUDY

The Local Level Institutions Study (LLIS) was a comparative study of three countries—Bolivia, Burkina Faso and Indonesia—that aimed to investigate the role of local institutions in providing service delivery and in affecting welfare and poverty outcomes.⁵ Data were collected at the level of the community, the district and the household.

At the level of the *community*, interviews with focus groups of households and with community leaders were held to establish a map of functioning institutions in the community. Three instruments were used:

- Information on community services was obtained through interviews with key informants such as the village chief, teacher, health provider, etc. This was supplemented with information on the local economy (infrastructure and distance to markets), local society (ethnic/religious composition) and local institutions.
- Community services were also discussed with groups of households, with the objective of learning the community's perspective on the quality of service, its experience with collective action, and its views on local institutions and development projects.
- For the most important local institutions, interviews were held with leaders and members, as well as with non-members, in order to get a balanced view of the role of the institutions in the village, their development over time, their main activities, relations with other institutions and government, and their main strengths and weaknesses.

At the *district* level (defined as the administrative level above the village or community), data were collected about the extent of service coverage and the institutional arrangements for the provision of services. Information was also obtained about the general functioning of the district administration and its relation with civic organizations, through interviews with general and sectoral managers at the district level.

The third and critical part of the data collection was a *household survey* that aimed to capture households' actual participation in local institutions, their use of services, and information that identifies the welfare level of households and their coping strategies. The questionnaire consisted of six sections:

⁵ The objective of the Local Level Institutions Study and the questionnaires are further discussed in World Bank (1998).

- demographic information on household members
- participation in local institutions
- characteristics of the most important groups
- service provision profiles
- perceptions of community trust and collaboration
- household economy and coping strategies.

The limited resources available did not make possible a sampling framework such that the studies would be representative of the countries at the national level. Instead, three or four areas were selected in each country (municipalities in Bolivia, provinces in Burkina Faso and Indonesia), which represent different economic, social and institutional environments.

Bolivia

In the case of Bolivia, the collected data cover four municipalities (“municipios”): Charagua, Mizque, Tiahuanacu and Villa Serrano.⁶ Bolivia is a country with a strong geographical and cultural heterogeneity. Climate, ecology and altitude vary significantly, ranging from the eastern plains at about 1,000 meters above sea level, to the highlands at altitudes approaching 4,000 meters above sea level. Bolivia is also a multi-ethnic and multi-lingual country. The three most important indigenous groups are the Aymara who live in the highlands, the Quechua who inhabit the valleys, and the Guarani in the eastern lowlands. It is estimated that 70% of the Bolivian population is of indigenous origin. The four selected municipalities cover the four main ecological zones of Bolivia as well as its principal indigenous groups.

Mizque is located in Bolivia’s central valleys at about 2,200 meters above sea level. The climate is hot and the area is subject to periods of draught. It is inhabited by the Quechua, who farm intensively on small parcels of land. Agriculture, irrigated and unirrigated, is the most important economic activity. Most land tenure has its origin in the adjudication of expropriated haciendas, but in most cases, land ownership has still not been legalized. Mizque experiences seasonal migration to Chapare, where young men work as day laborers in the production and processing of coca leaf, and to Cochabamba, where young women work as domestic servants. Mizque has a trunk road that connects the municipal capital with Cochabamba, 180 kilometers away.

⁶ The description of the four municipalities is based on Sandoval et al (1998).

Table 1: Selected Socio-Economic Characteristics of the Four Study Areas in Bolivia

	Charagua	Mizque	Tiahuanacu	Villa Serrano	Bolivia
Region	Chaco Plain	Central Valleys	Andean	Southern Valleys	
Altitude (meters above sea level)	980	2,225	3,870	2,378	—
Population	18,769	20,170	13,151	12,616	8 mln.
Rural population (%)	71	96	92	80	54
% of communities with primary school	79	22	100	61	n.av.
Number of health centers and hospitals	16	11	6	7	n.av.
% of heads of household who are farmers	56	73	69	62	65 ^{2/}
Household expenditure per capita (Bolivianos/year) ^{1/}	1,857	2,503	1,768	1,502	1,907 ^{2/}
Gini-coefficient	0.39	0.36	0.33	0.35	0.37 ^{2/}
^{1/} At the time of the data collection \$1 = Bs. 4.8.					
^{2/} Based on the four study areas only.					
Source: Sandoval et al (1998); authors' calculations.					

Tiahuanacu is located in the highlands just an hour away from the city of La Paz. An asphalt road connects it to the Bolivian capital. Tiahuanacu has the best developed road system of the four provinces with secondary roads passable throughout the year. Cold and arid, Tiahuanacu is located at an altitude of 3,900 meters above sea level. It is inhabited by the Aymara, who engage in subsistence farming and dairy production. Land reform did result in breaking up of haciendas in this area. Life in Tiahuanacu is dominated by the proximity to La Paz. Seasonal and permanent migration among the young to La Paz is a fact of life and is reflected in the fact that 41% of household heads are over 56 years of age, compared to approximately 20% in the other three municipalities.

Charagua is located on the plains of Eastern Bolivia at an altitude of about 1,000 meters. It is populated by the Guarani, who live side by side with hacienda owners engaged in raising livestock and the exploitation of forests. Local power is concentrated in the hands of timber companies and cattle ranchers. It is an 8 hour road trip to the south to the city of Santa Cruz. Unlike the other municipalities, Charagua has experienced population growth because of immigration to help with the cotton harvest.

Villa Serrano is located in the valleys of southern Bolivia at about 2,400 meters above sea level. It is 155 miles away from the city of Sucre. Its varied climate is typical of the many different micro-climates found in the mountainous Andean countryside. Its

population, although original Quechua, has been largely hispanicized and practices subsistence farming. Haciendas still exist in this part of the country and control local power. The small population is dispersed over large areas which leads to migration and poor social service coverage. In Villa Serrano, the population has declined because of out-migration, primarily to the more prosperous Santa Cruz department.

Within each municipality, nine rural communities were selected randomly. The capital of the municipality was included to represent the urban areas. In each of these sampling units, 25 households were selected randomly for a total sample of 1,000 households.⁷

Burkina Faso

In the case of Burkina Faso, the data collection covered the rural areas of four provinces: Yatenga, Sanmatenga, Houet and Sissili.⁸ Yatenga and Sanmatenga provinces are situated in the North of Burkina Faso, and are predominantly populated by the Mossi. Yatenga is the traditional seat of the Mossi Kingdom. Mossi social organization is quite hierarchical in a formal sense, but flexible in terms of daily practice. Both provinces have relatively high population density. Both provinces suffer from low rainfall, which reduces the productivity of agriculture. Livestock raising is prominent.

Table 2: Selected Socio-Economic Indicators of the Four Study Areas in Burkina Faso

	Houet	Sissili	Sanmatenga	Yatenga	Burkina Faso
Population	888,320	153,627	469,684	443,935	11 mln.
Rate of Urbanization	46%	12%	10%	12%	30%
Literacy rate	n.av.	n.av.	10%	16%	9%
% of heads of household who are farmers	76	85	94	91	86 ^{1/}
Household expenditure per capita (CFAF/year)	69,768	71,686	60,886	58,712	65,265 ^{1/}
Gini-coefficient	0.33	0.27	0.26	0.40	0.32 ^{1/}
^{1/} Based on the four study areas only					
Sources: Donnelly-Roark et al (1999) ; authors' calculations.					

Houet, which lies to the West, is culturally and ethnically diverse. The dominant ethnic groups have non-hierarchical and flexible elders' councils. Houet is a high rainfall area and is often called the granary of Burkina Faso. Human development is at a

⁷ For further details on the sampling procedure and the survey field work, see Sandoval et al (1998).

⁸ Descriptions of the provinces are based on CND (1998) and Donnelly-Roark et al (1999).

relatively high level. Houet draws immigrants, both farmers and herdsmen, from the North. Farmer-herder relations can involve conflict, with disputes arising over land and water.

Sissili, which lies to the south-east, is the home of the Gourounsi. Like in Houet, non-hierarchical and flexible elders' councils are active; in Sissili these councils have promoted various development initiatives. Due to high levels of rainfall Sissili is able to grow a variety of agricultural products, and attracts Mossi from Yatenga and Sanmatenga who are in search of arable land.

Within each province, one administrative department was selected for the data collection (in Houet, two departments were selected). In each province, twelve villages were chosen purposively based on four criteria: organizational level, economic situation, cultural diversity, and proximity of services. Within each village, 20 households were selected randomly to participate in the survey, leading to a total sample of 960 households (CND, 1998).

Indonesia

In the case of Indonesia, the collected data cover the rural areas of three provinces: Jambi, Jawa Tengah, and Nusa Tenggara Timur (NTT). Jambi is located on the island of Sumatra. It is a tropical forest area which was only recently colonized and is still an agricultural frontier zone. It is characterized by low population density and its socio-economic indicators are close to Indonesian averages or slightly below. Among the three provinces, Jambi has the lowest level of inequality in the distribution of household expenditure.

Jawa Tengah is in the center of the island of Java, about 500 kms away from Jakarta. It has a very high population density (867 people/km²) and is the most urbanized of the three provinces. It has also the highest income level and the best access to education and health services and to housing amenities. The population of both Jambi and Jawa Tengah is 99% Muslim.

NTT consists of a series of islands in the eastern part of Indonesia (about 2500 kms and two time zones away from Jambi) and is the poorest and least urbanized of the three study areas. It relies heavily on traditional agriculture and fewer than 5% of its economically active population have wage-jobs. The population is almost entirely Christian, evenly divided between Catholics and Protestants.

Table 3: Selected Socio-economic Indicators of the Three Study Areas in Indonesia

	Jambi	Jawa Tengah	Nusa Tenggara Timur	Indonesia
Population ('000)	2,370	29,653	3,577	194,755
Area ('000 km ²)	44.8	34.2	47.9	1,919.3
Population density (people/km ²)	53	867	75	101
% Urbanized	27.2	31.9	13.9	35.9
% of Households with access to electricity	30.5	71.1	14.5	57.2
Gross primary enrollment ratio (%)	95	97	91	95
Gross secondary enrollment ratio (%)	47	58	44	56
% of heads of household who are farmers	71	67	92	77 ^{1/}
Household expenditure per capita ('000 Rupiah/year) ^{2/}	575.3	612.4	453.8	547.1 ^{1/}
Gini-coefficient	0.29	0.36	0.37	0.35 ^{1/}
1 Based on the three study areas only.				
2. At the time of data collection (Fall 1996) the exchange rate was in the range of \$1 = 2,300-2,400 Rupiah.				
Sources: Statistical Yearbook of Indonesia 1995; Statistik Pendidikan 1994/95; Penduduk Indonesia, Jambi, Jawa Tengah, NTT-Hasil Survei Penduduk Antar Sensus 1995; author's calculations.				

Within each province two districts (kabupaten) were selected to participate in the study, and within each district two sub-districts (kecamatan) were selected. These units were selected purposively so as to represent a range of social, economic and institutional situations. Within each sub-district, four villages were selected based on location criteria (upland/lowland and near/far to growth center). Within each of the 48 villages, 25 households were selected randomly to participate in the household survey, for a total sample of 1,200 households.⁹

⁹ The data were collected in the fall of 1996, i.e. prior to the recent social and economic crisis in Indonesia.

3. LOCAL ASSOCIATIONS AND THEIR CHARACTERISTICS

The results of the Local Level Institutions Study show a rich and varied local associational life in each of the three countries. In Indonesia, an average household belongs to 5.5 local associations. In Burkina Faso, each household participates actively in the affairs of almost two associations.¹⁰ Associational life in Bolivia is dominated by one organization, the Agrarian Syndicate (Sindicato Campesino) of which two-thirds of households are members. In addition, the average Bolivian household is member of slightly less than one association. The patterns of these memberships are, of course, very different in the three countries and the map of local institutions is described in detail in the case study papers cited in Footnote 4.

In Indonesia, the most important type of local association is social service groups, accounting for 27.3% of all memberships. This is followed by finance and credit groups, religious groups, and governmental affairs groups which each represent slightly less than 20% of memberships. The most important government group is the "RT/RW" structure, which consists of a series of neighborhood groups put in place by the government to manage local affairs. Among the finance and credit groups, the most important local institution is IDT, which provides assistance to poor villages. Among social service groups, PKK, a national organization for Indonesian housewives, is most important. These are all structures that were set up by the government and of which membership is mandatory. It is to be expected that following the social and economic crisis in Indonesia and the change in government, the relative importance of various local organizations may well have changed drastically in recent years.

In Bolivia, as mentioned, the dominant local association is the agrarian syndicate, representing 45% of all memberships. Agrarian syndicates date back to 1952 when they were originally created by the state as a mechanism for political control. They have since evolved to an organization of local self-government that has legitimized the status of farmers as participants in the political and planning process. The Popular Participation Law of 1994 gave the syndicates a formal status as channels of communication with municipal governments. In Charagua, agrarian syndicates are very weak and their role is assumed by the Regional Assembly of the Guarani People. In addition to the agrarian syndicates, households in Bolivia are primarily members of productive groups and groups that were created by NGOs. Each of these categories accounts for 12% to 14% of memberships.

¹⁰ One characteristic of associational life in Burkina Faso is that households are members of many associations (an average of about 6), but they do not actively participate. Many such memberships are primarily driven by traditional or customary considerations. For details, see Donnelly-Roark et al (1999).

In Burkina Faso, the vast majority of memberships are in associations that are directly related to farming activities. Such associations account for more than 80% of all memberships. Religious groups and mutual help groups are a distant second with 6% to 7% of memberships each. The most important associations are village-based farmer groups (“groupements villageois”) which were originally created under government sponsorship, mostly in the period 1974 to 1980, and deal with a wide variety of issues, such as credit, reforestation, erosion control, adult literacy, and training. This includes the traditional Naam groups in Yatenga, whose primary objective is to introduce young people to the social life of the village (for details, see the discussion in CND, 1998).

The effectiveness of local associations is a function of many features of the association reflecting its structure, membership, and functioning. Table 4 shows some figures on five characteristics of associations: their internal heterogeneity, the extent of meeting attendance, the extent to which members participate actively in decision making, the amount of contributions made by members in cash or in kind, and the extent of community initiation.

The heterogeneity index measures, on a scale from 0 to 100, the extent through which membership of an association is internally diversified. This is based on nine criteria: neighborhood, kin group, occupation, economic status, religion, gender, age, level of education, and political affiliation.¹¹ The results indicate that the majority of associations in the three countries are quite heterogeneous. The index ranges from 53 in Indonesia to 77 in Burkina Faso. However, a certain amount of caution is necessary in comparing this index across countries because the extent of variations which exists along the nine dimensions is not the same in each country. For example, Indonesia displays more educational variation than Burkina Faso. Thus, the index is more useful to show differences within countries. For example, it is noteworthy in Indonesia that heterogeneity in Jambi is much lower than in the two other provinces. Likewise, in Bolivia, associations in Tiahuanacu and Villa Serrano show a much higher internal diversity than those in Charagua and Mizque.

It is not immediately obvious whether a high degree of internal heterogeneity is a positive or negative factor from the point of view of social capital. On the one hand, heterogeneity could be a sign of inclusiveness, and the presence of members with different background opens up more opportunities for gain from exchanging information and knowledge. On the other hand, an internally homogeneous association might make it easier for members to trust each other and to reach decisions.

¹¹ In the case of Indonesia, the heterogeneity index excludes political affiliation. It was deemed too sensitive to ask questions about this issue.

Table 4: Local Associations and their Characteristics

	% of Households who are Members in Sindicatos Campesinos	Memberships	Index of Heterogeneity	Meeting Attendance	Index of Participation in Decision Making	Cash Contribution Score	Work Contribution Score	Community Orientation
Bolivia								
Charagua	17.6	1.0 ^{1/}	56.8	6.6	85.7	5.8 ^{2/}	—	56.4
Mizque	90.4	0.3 ^{1/}	52.3	5.4	88.3	4.8 ^{2/}	—	76.7
Tiahuanacu	88.0	0.8 ^{1/}	73.8	3.7	86.7	4.7 ^{2/}	—	73.3
Villa Serrano	57.2	0.9 ^{1/}	72.7	5.4	77.7	1.7 ^{2/}	—	64.5
All	63.3	0.8 ^{1/}	64.1	5.2	84.9	4.3 ^{2/}	—	68.5
Burkina Faso								
Yatenga	—	1.6	73.9	3.0	72.3	1.8	7.2	85.1
Sanmatenga	—	1.7	86.7	2.4	82.8	3.7	6.0	77.2
Houet	—	1.9	72.8	3.0	81.0	2.3	9.5	76.6
Sissili	—	2.2	77.0	4.1	84.2	6.9	20.3	94.0
All	—	1.8	77.0	3.2	79.7	3.6	10.9	83.7
Indonesia								
Jambi	—	3.7	38.9	6.8	63.5	1.9	0.2	62.2
Jawa Tengah	—	6.0	57.6	6.0	55.6	1.9	2.9	48.0
NTT	—	6.5	61.6	5.2	71.4	1.7	13.3	49.5
All	—	5.5	53.3	6.0	63.5	1.9	5.7	52.9
1/ Number of memberships, excluding agrarian syndicates.								
2/ Index of combined cash and work contributions.								
<p>Note: Variable definitions are:</p> <ul style="list-style-type: none"> • <i>Memberships:</i> average number of active memberships per household. • <i>Index of heterogeneity:</i> scale (0 to 100) of internal heterogeneity of the three most important groups, according to eight criteria. • <i>Meeting attendance:</i> average number of times a household member attended a group meeting in the last three months, normalized for the number of memberships. • <i>Index of participation in decision making:</i> scale (0 to 100) of extent of active participation in decision making in the three most important groups. • <i>Cash contribution:</i> score (0 to 100) of fees paid for memberships in the three most important groups. • <i>Work contribution:</i> score (0 to 100) of number of days worked per year as membership contribution in the three most important groups. • <i>Community orientation:</i> percent of memberships in organizations which are community-initiated. 								

The literature on local associations has argued that the benefits from such associations are related to the extent of active participation of the members in the business of the association. This active participation can be measured in a number of ways. In the LLIS data set, this can be achieved by looking at the number of times people attend association meetings, the extent of active involvement in the decision making process, and the making of contributions either through fees or through work. In Bolivia and Indonesia, households attend meetings on average about twice a month. In Burkina Faso this is only half as much. Again, it is noteworthy that there is a significant degree of variation within each country. Active involvement in the decision making process is quite high in each of the three countries, but especially in Bolivia and Burkina Faso where the index measuring this participation is 80 or higher.

In none of the countries in the study do households make large cash contributions. This is not surprising given that the study areas were all relatively poor rural areas. The low values of the contribution scores in Table 4 reflect therefore primarily the large number of households who pay no fees at all or who make no in-kind contributions. In Bolivia, only 20% of associations charge fees, which on average amount to 6.6 Bolivianos per year. However, almost two-thirds of memberships in associations require a labor contribution, which on average amounts to 19 days per year. In Burkina Faso, about one-third of memberships require the payment of a fee which on average is less than 100 CFAF per month. Slightly more than half of memberships require a contribution in the form of work in order to remain an active member. The majority of cases require work during 1 to 4 days per month; this is hence not a negligible contribution. A similar situation exists in Indonesia, where about 30% of memberships require payment of fees, which on average amount to 2,427 Rupiahs per month. In addition, about 30% of households provide a labor contribution. However, this practice is largely confined to the NTT province, where the required contribution is very high, on average 68 days per year.

Many case studies on the functioning of local associations have argued that voluntary organizations that find their roots in the community are more effective than externally imposed and/or mandated groups (Uphoff, 1992; Narayan, 1995; Ostrom, 1995). In Indonesia, only about half of local organizations in which households are members were perceived to be set up by the community. This reflects the active role which the Indonesian Government has taken for many years in the organization of local associations, both for governance purposes and for the purpose of providing social services. In the two other countries, households perceive their associations to be much more community-oriented: 68% in Bolivia and 84% in Burkina Faso. Yet, historically, the predominant associations in both countries—the agrarian syndicates in Bolivia and the village groups in Burkina Faso—were set up by the government. Over time, though, these associations have come to be accepted by their members to the point that the majority of them are now being perceived as locally initiated organizations. This is a remarkable contrast with Indonesia, where this process of creating local ownership of associations has not taken place.

Local associations can serve a wide variety of functions in the life of a community. They can play an important role in the management of the community and/or they can play a role in the provision of social services, such as education and health, and in the provision of infrastructure services, such as water and electricity. They can also help the household obtain access to credit and help farmers manage irrigation and improve access to agricultural inputs. Table 5 shows the extent to which the local associations in the three countries under study are involved in these activities. The pattern is very different in the three countries. In Bolivia, local associations play a predominant role in the provision of education and health and in agricultural services, much more so than in the two other countries. This is primarily to be explained by the predominant role of the agrarian syndicates in Bolivia, which indeed have a role extending beyond agricultural activities and including the provision of social services. In contrast, the role of local associations in the provision of financial services is very small in Bolivia. This is the exact opposite of the situation in Indonesia, where financial services are one of the prime functions of local associations. In part this is related to the long tradition of rotating saving and credit associations (“*arisan*”), especially in Java. However, local associations in Indonesia play only a marginal role in the provision of other services (except education).

Table 5: Involvement of Local Associations in Service Provision

% of Memberships in Groups Active in	Bolivia	Burkina Faso	Indonesia
Education	59.8	38.5	40.2
Health	38.2	20.7	7.9
Water supply and sanitation	41.9	29.7	3.8
Electricity	24.3	0.4	0.3
Credit	9.3	21.4	27.9
Savings	4.8	7.9	27.1
Agricultural inputs/technology	20.6	29.8	7.2
Irrigation	20.5	2.5	2.4
Land, forestry, water rights	30.1	15.0	4.9

It is remarkable that in Burkina Faso, the country with the lowest education level, local associations are less involved in the provision of education than in the other two countries. One of the case study papers for Burkina Faso found that social capital as reflected in parents’ participation in parent-teacher association meetings has a positive impact on school attendance by children. The low involvement of local associations in education can therefore be seen as a missed opportunity, and further stimulation of this input should be part of the country’s overall policy towards improving education.

The role which local associations play in service provision is influenced by the extent to which other institutions, such as local or central government or NGOs, are

active in the provision of these services. The case studies have repeatedly highlighted the substitution that occurs between the provision of services by local institutions and other entities. For example, in Jambi, the traditional village structure (“Lembaga Adat”) is very strong and this implies that there is less need for other voluntary associations to address the provision of specific services. This in part explains why the density of local associations is lower in Jambi than in other Indonesian provinces. In Bolivia, the agrarian syndicates are very effective in the municipality of Mizque, which explains why the density of other local organizations is much lower there. In contrast, in Charagua, where the syndicates are least effective, the density of other voluntary organizations is highest.

4. SOCIAL CAPITAL AND HOUSEHOLD WELFARE

The basic question to be addressed is: Are households with higher levels of social capital better off? More specifically, taking into account the asset endowments of the households, can one empirically identify whether social capital makes an additional contribution to the welfare of households and, if so, by how much? To answer this question, we estimated a reduced-form model of household welfare which explicitly recognizes the existence of social capital as a household asset.

The customary reduced-form model of household welfare relates the level of household expenditure (as money-metric indicator of welfare) directly to the exogenous asset endowments of the household and variables describing the social and economic environment in which the household makes decisions.¹²

$$\ln E_i = \alpha + \beta SC_i + \gamma HC_i + \delta OC_i + \varepsilon X_i + \eta Z_i + u_i \quad (1)$$

Where E_i = household expenditure per capita of household i
 SC_i = household endowment of social capital
 HC_i = household endowment of human capital
 OC_i = household endowment of other assets
 X_i = a vector of household characteristics
 Z_i = a vector of village/region characteristics
 u_i = error term

The key feature of this model is the assumption that social capital is truly “capital” i.e. a stock, which generates a measurable return (flow of income) to the household. Social capital has many “capital” features: it requires resources (especially time) to be produced and it is subject to accumulation and destruction.¹³ Social capital can be acquired in formal or informal settings, just like human capital (e.g., schools versus learning-by-doing). Much social capital is built during interactions that occur for social, religious, or cultural reasons. The key assumption is that the networks built through these interactions have measurable benefits to the participating individuals, and lead, directly or indirectly, to a higher level of well-being. This is the proposition that the case studies tested empirically by means of equation (1).

¹² This reduced-form model was also the basis for the earlier cited study by Narayan and Pritchett (1997) on social capital in Tanzania.

¹³ Events in transition economies such as Russia and former Yugoslavia are powerful evidence of the effects of the destruction of social capital (Rose, 1995).

If equation (1) is estimated over households, there is an implicit assumption that social capital is embodied in the members of the household. This conforms to the position advocated by Portes (1998), who highlights that, although the source of social capital is the relationships among a group of individuals, the capital itself is an individual asset. This is in contrast to, e.g., the position of Putnam (1993), who sees social capital as a collective asset.

The social capital variable in equation (1), SC_i , can be expressed as a single index or as a series of variables capturing the different dimensions discussed in the previous section. Following Narayan and Pritchett (1997), we first constructed a multiplicative index of the three social capital dimensions which the literature has most often shown to matter: density of associations, internal heterogeneity, and active participation in decision making.¹⁴

Table 6: Effect of Social Capital on Household Welfare

	Bolivia		Burkina Faso		Indonesia	
	Coefficient	Point Elasticity	Coefficient	Point Elasticity	Coefficient	Point Elasticity
Social Capital Index	n.s.	—	0.0045	0.09	0.0069	0.12
Number of Memberships	0.1153 0.0529 ^{1/}	0.07 0.04 ^{1/}	0.0712	0.13	0.0146	0.08
Heterogeneity Index	n.s.	—	0.0036	0.28	0.0031	0.17
Number of Meeting Attendance	n.s.	—	n.s.	—	n.s.	—
Index of Participation in Decision Making	-0.0021	-0.16	n.s.	—	0.0025	0.16
Cash Contribution Score	0.0068 ^{2/}	0.03 ^{2/}	0.0042	0.02	n.s.	—
Work Contribution Score	—	—	0.0039	0.04	n.s.	—
Community Initiation	0.0013	0.08	n.s.	—	n.s.	—
Years of Education	0.0453	0.18	0.0938	0.07	0.0343	0.16
^{1/} Agrarian syndicates and other associations, respectively.						
^{2/} Cash and work contribution combined.						
n.s. = not significant						

Equation (1) was estimated over the LLIS data sets of each of the three countries and the first line of Table 6 shows the results for the multiplicative social capital index. In order to make comparisons easier, the results have also been expressed as point

¹⁴ The use of a multiplicative index implies that the three dimensions interact with one another. For example, heterogeneity may have different effects depending upon the number of associations of which the household is a member.

elasticities.¹⁵ For comparison, the elasticities showing the effect of education are also shown. In Burkina Faso and Indonesia, the social capital index had a positive and significant effect on household welfare. Perhaps the most important observation is that the magnitude of the elasticity (0.09 to 0.12) is similar to that observed from years of education (0.07 to 0.16). In Indonesia the effect of social capital is slightly less than that of education, but in Burkina Faso it is slightly higher. This could be because the level of education in Burkina Faso is extremely low—the average adult household member has less than one year of education. In Bolivia, the multiplicative index was not significant, but an additive index with the same three components yielded an elasticity of 0.13. Again, this is in the same order of magnitude of the elasticity of years of education (0.18).

The conclusion from these findings is that, even after controlling for ownership of human and physical capital and other relevant exogenous household characteristics, the presence of social capital as measured by the membership in local associations and their key characteristics, exerts an additional positive effect on household welfare.

As an alternative to a single social capital index, one can use a series of social capital variables in the equation, representing the different dimensions discussed earlier. This assumes that each social capital dimension acts independently, and that the effects are additive (with weights determined by the regression). The conceptual literature on social capital has not advanced to the stage that theoretical arguments can be put forth to select one approach over the other. The results of this exercise are also reported in Table 6, and show that the number of memberships and the heterogeneity index are the two most important characteristics. However, the magnitude of these effects differ a great deal from one country to the other. An additional membership in a local association increases household welfare from 1.5% in Indonesia to 7.1% in Burkina Faso. In Bolivia, membership in the agrarian syndicate corresponds to an increase in household welfare of 11.5% and membership in another association increases household welfare by 5.3%. The elasticities associated with the heterogeneity index are particularly large.¹⁶ An increase in the heterogeneity index by 10% would add 1.7% to 2.8% in household welfare.

Meeting attendance was not significant in any of the three countries, suggesting that this is a poor indicator of active participation in local associations. The results for the index of participation in decision making are puzzling at first sight. The coefficients are significant and positive in Indonesia, but negative in Bolivia. A further investigation revealed that this latter result is primarily due to the situation in Charagua and Mizque, where households in the lowest three quintiles have a particularly high degree of decision making in participation as opposed to richer households.

¹⁵ The point elasticity shows the percentage effect on household welfare (as measured by household expenditure per capita) of a 1% increase in the endowment of social capital. For example, an elasticity of 0.1 means that a 1% increase in the endowment of social capital increases household welfare by one-tenth of a percent.

¹⁶ The heterogeneity index is significant only in Burkina Faso and Indonesia, but it has to be pointed out that the data did not consider heterogeneity by ethnic group which is of particular importance in Bolivia.

Cash or work contributions as a measure of active involvement in an association are significant in two of the three countries, Bolivia and Burkina Faso, but the effects are very small. Likewise, community initiation was generally insignificant, except in Bolivia. This result at first sight goes against claims in the literature that grassroots organizations are more effective than those that are imposed by governments. However, in the case of Indonesia, the results indicate that while there is no direct effect from community initiation on household welfare, active participation in community-initiated organizations is much greater than in government-initiated organizations—hence there is an indirect effect. Also, as we explained earlier, many of the local associations in Bolivia and Burkina Faso were in fact initiated by the government many years ago and have over time come to be perceived as community-initiated by households. Hence, the variable picks up perception more than historical fact.

In the context of the model underlying equation (1), the coefficients of the social capital variables shown in Table 6 can be interpreted as the economic returns to memberships in local associations. There is in fact a close parallel between the interpretation of these coefficients and the interpretation of the coefficient of human capital. The latter represents the return to years of investment in education through school attendance. In the case of social capital, the main input is also time and the coefficient measures the return to the time spent in developing networks and participating in associations. This time can indeed be spread over many years and add up to a significant time investment.

However, one has to consider the possibility of reverse causation. High income households could have a higher demand for associational life, perhaps because they have more leisure (although the opportunity cost of their time is also higher). The same is true of course for education, which is also in more demand by higher-income households. One can certainly argue that associational life has a consumption value and is not sought merely for its economic benefits. This is related to the type of association: participating in church choir may have more consumption value than joining a farmers' cooperative.

The LLIS country case studies have each taken a similar and two-pronged approach to addressing this possibility. The first approach consists of instrumental variable estimation. As discussed in Section 2, the data collection for the LLIS took place at different levels—households, community, and district—and the community variables provide independent measures of village characteristics which can be used as potential instruments to test whether social capital is exogenous in the household welfare model. The case studies found that village variables such as ethnic and religious diversity, institutional effectiveness, institutional density, democratic functioning of associations, and the extent of community involvement in creating associations, are effective instrumental variables which passed standard econometric test procedures. In all cases, the instrumental variable methods led to higher coefficients for the social capital index than in the OLS model (as reported in Table 6) indicating that the prime direction of

causality is from social capital to household welfare. This strengthens the case for viewing social capital as an input in the household's production function.

The second approach to testing for direction of causality is to move away from a reduced-form model and attempt to estimate structural equations which show the direct effect of social capital on intermediate variables in the production of household welfare. This approach is further addressed in Section 6.

In the case of Indonesia, a third approach was possible because the data files contained information on past community involvement in major development projects that took place within the villages in the past ten years. Strong community involvement in projects is a good indicator of social capital because it requires the community to get together, to jointly organize activities, to raise funds, and to reach collective decisions. An indicator of such historical stock of social capital is clearly exogenous to current household welfare, and reverse causality is obviously impossible. When we added this indicator (together with a series of village control variables, including the number of development projects undertaken) to equation (1), the indicator showed a large positive coefficient. Adding the community social capital indicator changed the coefficients of the household-level social capital variables only slightly and did not alter their significance pattern. This leads to the conclusion that past community activity, and the social capital it built, exerts a positive effect on household welfare over and above that stemming from the household's direct involvement in associations.¹⁷

¹⁷ Since the regression controls for the number of development projects, the past-community-involvement variable does not measure the impact of these projects on household income, but only the additional benefit from the community's active involvement in the projects.

5. SOCIAL CAPITAL AND THE POOR

So far, we have provided evidence that social capital has positive effects on household welfare. However, since equation (1) imposes constant parameters over the entire distribution, the results do not say whether social capital helps the poor to the same degree as the rich, and whether investment in social capital can help in the escape from poverty. In this context, it is important to note that the ownership of social capital (as measured by the interactive social capital index) is fairly equally distributed. In Indonesia, e.g., the social capital index for the richest quintile is only about 30% higher than for the poorest quintile—about the same degree of inequality as for years of education (Table 7). Land and physical assets are distributed much more unequally. In Bolivia and Burkina Faso, land and physical assets were also found to be distributed much more unequally than social capital.

Table 7: Ownership of Assets, by Quintile of Household Expenditure per Capita (Indonesia)

	Quintiles					All
	1 (Poorest)	2	3	4	5 (Richest)	
Social Capital Index	14.99	16.65	16.65	18.00	19.89	17.23
Years of Education	4.32	4.64	4.59	5.04	5.65	4.85
Land Ownership (hectares)	1.45	1.28	1.96	3.90	2.52	2.17
Household Durables (number)	1.25	1.76	2.13	2.69	3.07	2.18

Relatively, poor households have thus accumulated more social capital than other assets, and the question is whether this is rational, in the sense that it provides poor households with relatively higher returns than other assets.

The country case studies addressed this question in three different ways. First, a probit model was estimated of the likelihood to be poor. The results for all three countries were consistent and indicated that social capital does indeed significantly reduce the probability to be poor. Consistent with the findings reported in Table 6, the main variables were found to be the number of memberships and the internal heterogeneity of the association. A further investigation of different dimensions of heterogeneity indicated that the economic dimensions, such as differences in economic status, education, and occupation dominated the results. This suggests that the mechanisms at work are primarily those of exchanging information and knowledge and perhaps also the pooling of risks over households who have different sources of income.

Quantile regressions are a further way to explore differences in the role of social capital between the poor and the rich. Quantile regressions estimate the regression line through given points on the distribution of the dependent variable (whilst an OLS regression line goes through the mean) and can assess whether certain explanatory factors are weaker or stronger in different parts of the distribution. However, the estimation is conditional upon the values of the independent variables and hence coefficients from quantile regressions are not comparable with those of OLS regressions.¹⁸

Quantile regression were estimated at the 90th percentile and at the 10th percentile and Table 8 shows the ratios of the coefficients of the social and human capital variables. The results indicate that in each country the returns to social capital are higher for the poor than for the rich. In Indonesia, e.g., the return to social capital at the 10th percentile of the welfare distribution is twice as high as at the 90th percentile. The returns to education follow an opposite pattern and are generally higher for the rich. Hence, in terms of relative returns, one can indeed say that social capital is the capital of the poor: although the poor have less social capital than the rich, as is true for all types of capital, social capital is relatively more important in the portfolio of assets of poor households, and it gives them a relatively higher return.

A further investigation of the factors that contribute to this finding suggests that in the case of Indonesia the result is primarily influenced by the index of participation in decision making. This suggests that the poorest households in Indonesia benefit the most from a high level participation in the decision making of associations. Furthermore, the cash contribution score was only significant at the 90th percentile suggesting that the rich “buy” their way into social capital. The pattern of the coefficients of the work contribution score was the exact opposite, suggesting that the poor have to work their way into social capital.

**Table 8: Ratios of Returns to Social and Human Capital
Between Richest and Poorest**

	Bolivia	Burkina Faso	Indonesia
Social capital	0.75	0.05	0.51
Human capital	0.91	1.18	1.82
Note: Entries are ratios of quantile regression coefficients at the 90th percentile over those at the 10th percentile of the distribution of household expenditure per capita.			

A third way to investigate whether there are differential returns to social capital between the poor and the non-poor is to split the sample according the amount of land

¹⁸ Specifically, the coefficients show the effect of a marginal change in an explanatory variable on the xth conditional quantile of the dependent variable (Buchinsky, 1998).

held by households (Table 9). In the rural settings of the three study countries, land is obviously a key asset. The results for each country indicate that the returns to social capital are larger for smallholders than for households with higher amounts of land.

Table 9: Returns to Social Capital, by Size of Landholding

	Bolivia	Burkina Faso	Indonesia
Smallholders	0.0071	0.0031	0.0067
Others	0.0039	0.0026	0.0059

In summary, the results of this section indicate that memberships in local associations reduce the probability to be poor. Returns to social capital are generally higher for households in the lower half of the distribution, whether by expenditure per capita or land ownership. Investing in social capital is hence a rational and effective strategy for poor households.

6. THE EFFECTS OF SOCIAL CAPITAL: ASSET ACCUMULATION, ACCESS TO CREDIT, COLLECTIVE ACTION

In this section we step away from the reduced-form approach to estimating the impact of social capital on household welfare and poverty outcomes, to investigate more directly some of the processes that contribute to this result. In a poor rural setting, a prime consideration for households is to develop coping strategies to deal with the risk of income fluctuations. This involves accumulating assets which can be sold in time of need and/or arranging access to credit. In order to see whether social capital is effective in contributing to asset accumulation, we estimated a model with the same regressors as equation (1) but with various indicators of asset accumulation and access to credit on the left hand side. Specifically, we constructed indexes (with various weights) of household ownership of durable goods and a binary indicator whether the household had been able to increase its savings over the past year. We also have information on whether the household was able to obtain credit and the amount of such credit. Household coping strategies also rely on the community at large. The LLIS data indicate the number of times per year the household participated in collective action, which is often organized to maintain or improve infrastructure and hence also provides an indirect benefit to the household.

Table 10 indicates which social capital variables were significant in which countries. The overall observation is that, even after controlling for other household characteristics, social capital makes a significant contribution to asset accumulation, access to credit, and collective action. Consistent with previous findings, the number of memberships and the heterogeneity index were most consistently significant in the different models. More diverse associations contribute more to asset and saving accumulation and to access to credit than those that are more internally homogenous. This is perhaps a surprising result in the case of Indonesia where credit and saving associations are traditionally separated by gender, especially on the island of Java. Nevertheless, a further analysis indicated that associations which consisted of both men and women resulted in better access to credit for its members than the traditional associations.

**Table 10: Effects of Social Capital on Asset Accumulation,
Access to Credit, Collective Action**

	Asset/Saving Accumulation	Credit	Collective Action
Number of memberships	B, BF, I	BF, I	B, I
Heterogeneity index	BF, I	BF, I	(B), BF, (I)
Meeting attendance	B, I	—	B, BF
Participation in decision making	(B), I	I	—
Cash/Work contribution	BF	BF	BF, I
Community initiation	—	(BF), (I)	—
<p>Note: Symbols indicate country case studies where variables were significant. Symbols in parentheses indicate negative coefficient B = Bolivia BF = Burkina Faso I = Indonesia</p>			

A noteworthy result is that in the case of collective action, the effect of internal diversity of an association works in the negative direction. The highest participation in collective action comes from members of internally more homogeneous organizations. Further analysis in the case of Indonesia indicated that kin group and religion were the key dimensions. In other words, collective action is easiest organized in associations which bring together people from within the same kin group and/or religion. The importance of this factor has in fact been documented elsewhere. Kähkönen (1999) reports that homogeneity of kinship, caste and ethnic background aids collective action for water supply.

The role of these social and demographic factors is a noteworthy contrast with the role of the economic factors, such as education, occupation, and economic status which were the key contributing factors to increasing household welfare. Clearly, a different mechanism is at work. The benefits to household welfare come primarily from exchanges in knowledge and the pooling of risk in the case of credit, while the ability to organize collective action is more a function of trust and a shared perception of a common good. It is plausible that this is more readily achieved among people who are kin or share religious convictions.

The regressions underlying Table 10 showed that the effects of an additional membership in an association were in the same order of magnitude or in some cases even larger than the effects of years of education. This attests again to the important role of the networks implied by memberships in local associations in accumulating assets and obtaining credit, as ways to smoothen income fluctuations and to cope with economic shocks to the household.

The empirical results also made it clear that the type of association matters a lot in achieving these effects. In that context, we note the negative sign of the community initiation variable on access to credit in the case of Burkina Faso and Indonesia. This suggests that the financial associations which are set up by outside entities (government, NGO) may well be more effective in providing credit to villagers than associations which are set up from within the community. This may be due to the greater access to financial resources by outside associations, since the grassroots financial associations are typically of the rotating credit variety, whose resources are limited to those that can be brought in by the members themselves.

In the case of Indonesia, we were also able to make a distinction between memberships in associations whose prime objective was financial and those with other objectives. A noteworthy finding was that memberships in non-financial associations also contribute to improving access to credit. This is one sense in which social capital is truly “social”, in that the building of networks and trust among members in the context of a social setting spills over into the financial arena. This interpretation of social capital has been proposed by several authors, such as Putnam (1993), Dasgupta (1988), and Fukuyama (1995). Our finding is also consistent with the results of Sharma and Zeller (1997) who report that the number of self-help groups in communities in Bangladesh has a positive spillover effect on the performance of credit groups.

The presence of spillover effects between activities undertaken for social purposes into the economic arena—a key feature of social capital—was also documented in the Indonesia case study in a different way. The study distinguished three types of associations: government-supported groups, religious groups, and genuine grassroots associations. The latter were further differentiated between production associations and social associations, the key distinction being that production associations aim primarily to generate direct economic benefits for their members, while social associations do not. Social associations pursue health and education benefits, mutual support for ceremonies or recreation purposes. Yet, the analysis revealed that the largest effect on household welfare came from memberships in social groups. This lends support to the view that the economic benefits of social capital are an externality to the pursuit of social interaction and the resulting build-up of trust. One is reminded of the famous choral societies and bowling leagues discussed by Putnam (1993, 1995). Given the efforts which the Indonesian government has put in the creation of a nationwide network of local associations, it is sobering to note that membership in these government-sponsored groups had no measurable effect on the welfare level of households.¹⁹ Of course, the

¹⁹ There is a silver lining to this finding. The recent crisis in Indonesia, and the change in government, has likely led to a weakening of the network of government-supported local associations. Our results suggest that this may not have contributed to lowering the welfare level of households. Furthermore, the voluntary production and social associations could well take over some of the functions previously handled through government-sponsored associations, which would be to the benefit of households. It has been observed before in Indonesia, that in areas where government associations are weak, voluntary associations step in to fill the void (Werner, 1997).

government had also other objectives in mind when establishing these local associations (see e.g. Evers, 1998; Werner, 1998).

In summary, in this section we attempted to get closer to the structural equations which underlie the reduced-form model of equation (1) by estimating the impact of social capital on variables portraying the ways in which social capital contributes to household welfare. We found that households with high social capital are better able to accumulate physical assets and savings and obtain credit. This should help households cope better with the risk of income fluctuations. The number of memberships and the internal heterogeneity of associations were the key dimensions. These findings, in combination with the econometric results from instrumental variable estimation discussed earlier (section 4) provide strong evidence for the impact of social capital on the welfare of households and support the view of treating social capital as an asset which households seek to acquire for similar reasons as the acquisition of human and physical capital.

7. SUMMARY AND CONCLUSION

Social capital can be analyzed in a variety of ways: from qualitative to quantitative methods, from case studies to formal econometric methods. The empirical literature on social capital consists primarily of case studies which have investigated the impact of certain types of associations on the outcome of development projects. The unit of analysis has typically been the community and the geographic study area has been limited (see for example, Krishna et al, 1997 and Uphoff et al, 1998). Very few studies have focused on the distributional impact of social capital and have used the household as unit of analysis. For that reason, the data collection underlying the Local Level Institutions Study covered multiple units of analysis—the household, the community, and the district—and the analysis summarized in this paper has focused on the household.

The results reported in this synthesis paper were primarily derived from quantitative analytic methods, mainly formal econometric models. However, this analysis is part of an integrated qualitative/quantitative approach. The interpretation of the econometric results would not have been possible without prior qualitative analysis of the data collected at the community and district levels. These analyses were summarized in the reports by Sandoval et al (1998) for Bolivia, CND (1998) and Donnelly-Roark et al (1999) for Burkina Faso, and Werner (1998) and Evers (1998) for Indonesia. These qualitative studies brought out a number of salient institutional and historical features that have a bearing on the effectiveness of local associations.

The contribution of the econometric studies synthesized in this paper is the estimation of the magnitude of the impact of social capital after controlling for other relevant household assets and characteristics. They indicate that social capital cannot simply be seen as a good which exists at the community level and which benefits all households in the community equally. There are significant distributional effects and certain attributes of local associations benefit the poor more than others. The quantitative studies also documented that the returns to social capital are relatively higher for the poor than for the rich and that hence investments in social capital should be considered as part of a poverty alleviation strategy. While there are spillover effects at the community level, individual household actions are needed to obtain the maximum benefit from membership in local associations. Active participation in association decision making is especially important.

A major finding which the quantitative studies have documented is that the composition of membership makes a big difference in the results of the association. Specifically, heterogeneous associations bestow larger benefits on their members than less diversified ones. In the majority of cases, the key dimensions were the economic characteristics of the members, such as education, economic status, and occupation. Diversification along this criteria promotes fruitful exchanges of knowledge and information and permits the pooling of different risks associated with different sources of

income. This is especially important in securing access to credit. In contrast, in the case of activities that primarily benefit the community as whole, such as collective action, homogeneity of demographic and social characteristics, such as kinship and religion proved to be more important.

The use of quantitative analytic methods also made it possible to investigate in a formal way the question of causality. Does social capital cause higher incomes or do higher incomes lead to a better acquisition of social capital? This question is similar to the one that has been asked for a long time regarding human capital. Our findings suggest that the effect of social capital on income predominates. We derived this conclusion from instrumental variables estimation, the use of historical data (in the case of Indonesia), and by focusing on some of the structural equations which capture directly the way in which memberships in local associations lead to higher incomes. These venues include accumulation of assets, increased savings, and access to credit. At the level of the community they include improved collective action. These factors all contribute directly or indirectly to higher incomes and reduced poverty for households. To the extent that these studies have indeed made a compelling case that social capital increases household welfare and reduces poverty, the obvious policy implication is that investments should be made in social capital. The key questions are by whom and how?

Investing in social capital differs from investing in human capital: education is embodied in one individual and can be acquired by one individual regardless of what other people do. By definition, social capital can only be acquired by a group of people and requires a form of cooperation among them (although, as our results have shown, the extent to which different members of a group capture the benefits does depend upon their individual actions, especially the extent of active participation). This gives social capital an inevitable public good character and this has implications for its production (Coleman, 1988, 1990). In particular, like all public goods, it will tend to be underproduced relative to the social optimum, unless the group responsible for its production can fully internalize the externality involved (Collier, 1998).²⁰ Which group is best suited to producing social capital thus depends largely on the scope of the created externality and this determines the size of the group needed to internalize it effectively and avoid free rides. For example, in the case of rotating savings association, the scope is local; in the case of the rule of law, it is national and the central government needs to play the essential role.

To the extent that a population with high levels of social interaction, trust, and abidance to norms and laws generates countrywide benefits, it may justify a role for government. This role would not necessarily consist of setting up a series of government-sponsored associations (as the Indonesian government did), but primarily in creating a supportive environment for the emergence of voluntary local associations. The Indonesian results suggest indeed that the returns to members are larger from voluntary associations. However, the results for Bolivia and Burkina Faso also indicate that

²⁰ This assumes that the externalities are positive. If social capital generates negative externalities, e.g. through crime syndicates, it will of course be overproduced relative to the social optimum (which is presumably zero in this example).

organizations which were originally set up by government can over time become adopted by the local population and be perceived as community associations. Either way, government, especially local government, can play a role in ensuring that the poor participate in local associations. Our results indicate that the benefits from membership and active participation are greater for the poor than for the population at large.

Finally, we must reiterate that the micro-institutional focus on local associations, which was embodied in the Local Level Institutions Study, pertains to only one component of social capital. Social capital is a much broader concept which relates also to the macro level. Further analysis will have to pay attention to the interaction between social capital at the micro and macro levels. Local associations are good vehicles to implement national policies at the local level and as such they can strengthen macro-level institutions, but by the same token actions of the latter are needed to empower local associations. Current tendencies toward decentralization is one framework within which this can occur. Considering the role which local associations play in promoting the welfare of households, it is clear that strengthening their role would be a key element in a decentralization policy, and would complement efforts to strengthen the capacities of local governments.

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