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**Do Village Organizations Make a Difference in African Rural
Development?**

A Study for Senegal and Burkina Faso

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Summary. – Quantitative and qualitative analyses are used to assess the existence of village organizations (VOs), their performance, and members' participation in benefits in Senegal and Burkina Faso. VOs are classified into Market-oriented (MOs) and Community-oriented (COs). Results show that organizations are present in a majority of villages and include a high share of rural households. Diffusion of MOs is limited by isolation and social conservatism. Performance is constrained by low professional management capacity and lack of access to resources. With elaborate administrative rules in place, participation in benefits shows no occurrence of leader or elite capture in MOs.

Key Words – Village organizations, management capacity, resources, Senegal, Burkina Faso

1. INTRODUCTION

Village organizations (VOs) are composed of members seeking to improve their livelihoods through collective action. They differ from traditional organizations in that their functions include mediating the relations between villagers and economic, institutional, and political actors outside the farming community, while traditional organizations mainly regulate relations within the community (Mercoiret and Berthomé, 1997). They also differ from traditional organizations by having legal status and formal membership. They fulfill three main functions for their members: provide services when markets fail, club goods or local public goods when states fail, and voice in political affairs (Diagne and Pesche, 1995; and Collion and Rondot, 1998). These organizations take different forms in different parts of the world, ranging from producer cooperatives to broad multipurpose organizations.

Producer organizations have played a major role in the successful performance of the family farm in industrialized countries (Malassis, 2000), and this role continues unabated today. In the European Union, for instance, there are some 30,000 agricultural cooperatives with 9 million members, accounting for 50% of the overall market for inputs and 60% of the market for products (Mercoiret et al., 2006). In the United States, cooperatives control about 80% of dairy production and most specialty producers in California are organized in cooperatives.

Producer organizations are spreading rapidly in developing countries as well (Uphoff, 1993; Berdegú, 2001). The Indian Dairy Cooperatives have 12.3 million members, mainly smallholders and landless households, accounting for 22% of the milk produced in India. The National Federation of Coffee Growers in Colombia has 310,000 members and provides production and marketing services to half a million coffee growers, most of them with less than 2 hectares. Besides services to its members, the Federation also delivers public goods (research, extension, health, education) and infrastructure (rural roads, electrification) for coffee-growing communities. International organizations such as the International Federation of Agricultural

Producers (IFAP) with 115 national federations in 80 countries, and Via Campesina with 92 federations or unions, have become major advocates of family farmer interests in international negotiations. In as much as the family farm has proven to be historically one of the most effective ways of organizing agricultural production, competitiveness of the family farm, in particular in the emerging context of concentrated value chains for inputs, agro-processing, and marketing, requires effective organizations for service, market power, and political voice. In coffee production, for instance, 25 million producers, mainly smallholders, face four international traders that control 40% of the market and four coffee roasters that control 45% of the activity. Membership to a producer organization is a necessary conditions to gain access to these markets and have some bargaining power. Village organizations are increasingly considered as essential partners by development agencies which frequently rely on them to implement their programs. This is particularly the case for the new wave of community-driven development (CDD) programs based on decentralization and participation (World Bank, 2002; Mansuri and Rao, 2004).¹ Contributions of VOs to development have been recognized in numerous studies on the role of social capital in growth, poverty reduction, and resource management (Uphoff and Wijayaratna, 2000; Durlauf and Fafchamps, 2004).

VOs are increasingly important in West Africa where agricultural growth is decidedly smallholder based. Organizations emerged in the 1960s as governments promoted cooperatives to enforce production quotas for cash crops and to distribute subsidized credit and inputs (Collion and Rondot, 1998). With economic and political liberalization in the 1980s, producers started to developed more autonomous organizations as an alternative to the state-controlled cooperatives. These organizations have multiplied rapidly, following contraction of the role of the state in agriculture after the debt crisis and the ensuing structural adjustment programs.² Today, VOs are present in a large number of West African villages, where they serve as a major interface between the village community, the market, and the state. National federations in Senegal (Conseil National de Concertation et de Coopération des Ruraux) and Mali are interlocutors in policy

formation (Mercoiret et al., 2006). It is consequently important to ask how effective are VOs in African rural development, and what can be done to enhance their performance.

Numerous case-studies have contributed important understanding to the existence, performance, and benefits for members of village organizations (Tendler, 1983; Thorp, Stewart, and Heyer, 2005). However, with a few exceptions such as Grootaert, Oh, and Swamy (2002) and Donnelly-Roark, Ouedraogo, and Ye (2001) for Burkina Faso, there is limited quantitative evidence on VOs in terms of prevalence, performance, and participation in benefits. This paper uses extensive case studies of VOs complemented by two large surveys of organizations in Senegal and Burkina Faso to provide a diagnostic on organizations.

Both countries have undergone important economic reforms since the mid 1980's. However, despite increased growth rates (from around 2% before 1995 to an average of 5% a year since then), rural poverty rates have remained at 53% in Burkina Faso and 65% in Senegal with little decline (Boccanfuso and Kaboré, 2004). The paradox is that this lack of material gains has occurred in a context of remarkable institutional progress. Our data indicate that VOs are present in a majority of villages, and that a majority of rural households participate in these organizations. Thus, even if the diffusion of organizations is still incomplete, they are extensively present in rural areas. In both countries, we find that the poorest community members tend to participate in VOs as much as their richer neighbors, and uncover little evidence of elite capture and corruption, likely as a consequence of the elaborate rules that characterize the management of these organizations in West Africa. However, we find that despite elaborate rules and procedures, and although effective in providing training and information services, these organizations are generally limited in delivering material benefits to their members. Unlike other studies (e.g., Uphoff, 1993), our results thus suggest that the overall poor performance of VOs is not due to capture by local elites, but rather to low managerial capacity and to "penny capitalism" due to severe lack of access to resources.

The rest of the paper is organized as follow. Section 2 presents the data and proposes a

classification of organizations between "Market-oriented" and "Community-oriented". Section 3 describes the **existence** of VOs in both countries since the mid 1980's and analyzes the constraints on further diffusion. In Section 4, we analyze the **performance** of MOs and COs in servicing their members. We show that performance is constrained by limited managerial capacity and by lack of access to resources. In Section 5, we analyze the issue of **participation** in benefits and find no evidence of systematic capture by organization leaders, and only limited capture by elite members in COs which is reduced by improved internal controls. Section 6 concludes with recommendations as to how to enhance the role of organizations in support of smallholder agricultural development.

2. THE DATA AND A CLASSIFICATION OF VILLAGE ORGANIZATIONS

(a) The field work

Toward the end of the 1990's, governments and donors recognized the potential role of VOs as major development actors in rural Africa. In Senegal and Burkina Faso, this led to implementation of two nation-wide programs aimed at reinforcing the capacities of VOs in providing services to their members.³ As part of these programs, extensive case studies of VOs and surveys were implemented in 2002 in both countries to characterize these organizations. The qualitative case studies and quantitative surveys were conducted by the same team of researchers with the consequence that the field methods, sampling design, and questionnaires used were identical, making results comparable.

The survey consisted of three questionnaires at the village, the VO, and the household level. The village survey provides basic characteristics of the village and establishes a census of all VOs in the village.⁴ For each VO, questions were asked to its leaders about the organization's history, activities, governance structure, and external links. Finally, basic information on all households in the community was collected through an indirect survey fielded with an informant. This information allows us to analyze the existence of organizations, their performance in

servicing members, and the distribution of benefits across categories of members. It does not allow us to analyze the role of organizations in giving voice to their members in public affairs.

The sample design included three geographical regions in Senegal (Peanut Basin, Fleuve Valley, and Niayes) and five in Burkina Faso (North, Center North, South, Southeast, and West) that were chosen according to their contrasted agro-ecological and socio-economic features. In each region, four to seven clusters (Communautés Rurales in Senegal, Départements in Burkina Faso⁵) were randomly selected, within which 14 villages were also randomly chosen. Overall, the surveys covered 245 villages, 434 VOs, and 8,114 households in Senegal; 280 villages, 647 VOs, and 11,998 households in Burkina Faso.⁶

(b) Market- and community-oriented organizations

There is considerable heterogeneity across VOs in terms of what they do. To recognize this, we distinguish between two types of organizations: “Market-oriented organizations” (MOs) and “Community-oriented Organizations” (COs) based on the activities undertaken by these organizations (see Uphoff, 1993; Diagne and Pesche, 1995; and Collion and Rondot, 1998, for similar classifications).⁷ We define MOs as organizations that support the income generating activities of their members. Activities commonly supported include processing and marketing, livestock breeding and animal husbandry, horticulture and irrigated crop production, and cotton production. By contrast, COs are organizations that only provide club goods or local public goods. Their activities include cultivation of a collective field, casual labor exchange, and maintenance of a cereal bank all for solidarity purposes, management of the environment and up-keep of the village, water harvesting with stone bunds to recharge water tables, social activities, and potable water management.

The classification of organizations into COs and MOs, based on activities ever undertaken since their creation, is reported in Table 1. Both types of organizations are well represented in the two countries, with organizations more frequently engaged in market-oriented activities in

Senegal than in Burkina-Faso. In both countries, the dominant market-oriented activities are processing and marketing, followed by livestock breeding and animal husbandry, and horticulture and irrigated crop production. Burkina Faso has an important cotton producing sector in one of the regions covered by the survey, supported by MOs. It is notable that more than half of the MOs provide local public goods in both countries (56% in Senegal and 69% in Burkina Faso), in addition to assisting the market activities of their members. The most prevalent public good activity of MOs consists in providing a safety net to villagers. This service is provided through the management of a cereal bank or through the accumulation of financial resources derived from selling the product of a common field or earning cash from casual labor supply.

(Table 1 here)

The following case studies of VOs encountered during field work illustrate the diversity of activities undertaken by any one organization, and the classification of organizations in MOs, and COs:

- The women organization in Khandane (Senegal) was created in 1982 and has 205 members. Its activities include animal husbandry, trade, handicrafts, and rotating credit for its members. This organization is classified as an MO. Nevertheless, the organization also manages a water pump and a cereal mill as services for the whole village.
- The Gol Koté organization (Senegal) was created in 1988 and has 100 members. Its activities include the management of a meeting room for the village youth, the organization of soccer and wrestling competitions, and training of the local population to prevent malaria. This organization only undertakes public good-type activities and is classified as a CO.
- The Karabé organization (Burkina Faso) was created in 1998. It includes 15 registered members but the whole village is de-facto member of the organization. Its activities include the building of stone bunds for water harvesting to the benefit of all villagers, the provision of literacy training, and the management of a cereal bank. This organization is also classified as a CO.

- The Yanderama organization (Burkina Faso) was created in 1998 and has 46 members. Its activities include the cultivation of a collective cotton field to the benefit of its members, the stocking and marketing of members' individual cotton crop, and the management of collective credit for its members through a local NGO. This organization is classified as an MO.

3. EXISTENCE OF VOs IN SENEGAL AND BURKINA FASO

(a) Rapid diffusion of organizations

Retrospective data collected in the surveys help retrace the evolution of VOs since the beginning of the 1980's and their prevalence at the time of the survey. In both countries, the presence of VOs has increased rapidly. In Senegal, 10% of the villages had at least one VO in 1982; by 2002, this figure had risen to 65%. Data for Burkina Faso also show rapid growth, with 22% of the villages that had at least one organization in 1982 and 91% in 2002.

Rapid expansion applies to both MOs and COs. 47% of the villages in Senegal had at least one MO in 2002, while 33% had at least one CO. Similar counts in Burkina Faso give 56% and 70%, respectively. In both countries, the growth rate of MOs is higher than that of COs. This is particularly the case in Senegal where the number of villages with at least one MO has increased more than four times faster than that of villages with at least one CO. Also notable is the sharp rise in the number of villages with both MOs and COs since the mid-1990's, suggesting increasing complementarities between the two types of organizations over time. In Burkina Faso, 41% of the villages have at least one organization of each type, while this is the case for 17% of the villages in Senegal.

Household participation in VOs is also remarkably high. In 2002, 83% of households have access to at least one VO in Senegal and 92% in Burkina Faso. Overall, 69% of Senegal's rural households and 57% of Burkina-Faso's participate in such an organization. As noted before, participation rates when there is an organization in the village are higher in Senegal (83%) than in

Burkina Faso (62%). Much of this difference can be explained by the larger participation rates in MOs in Senegal (75% vs. 45%), while participation rates in COs (60% and 58%, respectively) are similar in the two countries.

We thus conclude that MOs and COs are widely present in both countries. However, there exists considerable spatial heterogeneity in their prevalence across regions and villages. And diffusion is incomplete. We analyze both in what follows to understand what may be constraining further expansion.

(b) Incomplete emergence

Geographical differences

Several factors may explain the uneven geographic distribution of MOs and COs. Case studies suggested that the existence of different types of organizations respond to different economic needs but also to different social constraints. In addition, external partners often play a determinant role as they tend to favor COs because their public good activities typically benefit a larger share of the village population than MOs.

The presence of MOs and COs differs across the regions surveyed in the two countries. In Senegal, the Fleuve Valley has a significantly higher rate of MOs (and less COs) than the other regions and in particular than the Peanut Basin. Lower exposure to environmental risks, better business opportunities supported by MOs, and less need for collective safety nets provided by COs may explain part of these differences. Indeed, starting in the colonial period, the Fleuve Valley benefited from the development of irrigation facilities. By reducing the environmental risk linked to rainfall and flood variability, this allowed the production of cash crops such as rice to which MOs provide important assistance through services in support of production, transformation, and marketing, and through access to information and new technologies. In contrast, farmers in the Peanut Basin are more vulnerable to environmental risks as the region is

characterized by relatively poor soils, low rainfall, and almost non-existent irrigation facilities, justifying the importance of COs for risk-sharing.

Similar patterns exist in Burkina Faso where we observe more MOs in the West, and more COs in the Center North. The West is the most fertile region in the country and its high rainfall level enables the cultivation of demanding crops such as cotton, maize, rice, fruits, and vegetables, to be sold on domestic and international markets. In this context, MOs offer crucial support to farmers. The region is also characterized by ethnic and religious diversity, due to important migration from other regions and neighboring countries. As we will show, social diversity seems to provide a more inviting social context for the emergence of MOs that may enhance social differentiation compared to social homogeneity that breeds conservatism. By contrast, the Center North is the most densely populated region of the country. The region is flat, the soil arid, and rainfall relatively low and uncertain. The main crops are cereals, mainly produced for home consumption. The region is socially more homogenous as mostly populated by the Mossi⁸ ethnic group, which is characterized by a hierarchical social structure enforced by traditional leaders. As in the Peanut Basin, the predominance of COs in this region may be driven by greater need for solidarity grounded in strong community ties in facing uncertain environments with little individual margin for risk coping.

These regional contrasts suggest that the relative importance of MOs and COs is driven by exposure to environmental risk and by social homogeneity both of which favor COs over MOs. External support may also have greatly influenced the regional distribution of each type of organization, with numerous case-studies suggesting that organizations are often created in response to the availability of financial assistance provided by external partners. A striking example is the donor-supported Six-S movement⁹ in the Mossi Plateau, which has given important support to COs and has induced a large increase in the number of such organizations. Similarly, the FONGS movement¹⁰ in the Senegalese Peanut Basin, which is supported by a broad range of donors, has favored the emergence of COs. Since donors tend to be motivated by

poverty reduction and avoidance of famine, their differential support to COs in regions of greater poverty and risk contributes to dominance of COs in these contexts.

Constraints on emergence

Why is the diffusion of organizations still incomplete, particularly MOs? Tables 2 and 3 analyze the correlates of the presence of MOs and COs at the village level through estimation of logit equations for Senegal and Burkina Faso, respectively. Results confirm the role played by the different zones described above, with more MOs and less COs in the Fleuve Valley of Senegal compared to the Peanut Basin, and more MOs in the West than the Center North of Burkina Faso. In addition, we find that village size plays an important role, with larger villages associated with the presence of both types of organizations in Senegal and the presence of MOs in Burkina Faso. One interpretation is that the greater the size of the village, the more potential for economic activities and hence the greater the presence of MOs. This is complemented by the negative effects of remoteness on the presence of MOs, which indicates the importance of economic opportunities and infrastructure to combat remoteness in promoting MOs.

(Tables 2 and 3 here)

In columns with odd numbers, we include indicators of social fragmentation within the community, using a Herfindahl index of caste fragmentation in Senegal and of ethnic fragmentation in Burkina Faso.¹¹ Results indicate that social heterogeneity is associated with the presence of MOs, but not with that of COs. We also introduce an indicator of rainfall variability measured as the standard deviation of the average yearly rainfall over the past ten years. In general, these measurements were only available at the Rural Community/Department level, and hence are not precisely measured in explaining village-level phenomena. Although weakly significant, more rainfall variability tends to constrain the emergence of MOs, showing again the importance of the quality of the economic environment for MOs.

One way of explaining the positive role of social heterogeneity on the presence of MOs is to consider heterogeneity as an indicator of lesser community pressures against individualized benefits. According to this interpretation, more social homogeneity proxies the importance of sharing norms widespread in West-African villages. More rainfall variability proxies the need for mutual insurance in response to greater risk. Because they do not directly generate monetary revenues for their members, COs do not induce economic differentiation of their members from the rest of the community. To the contrary, by providing support to local entrepreneurship, MOs are expected to induce economic and social differentiation of their members from the rest of the community. Because this may jeopardize the traditional structures of authority as well as the mutual insurance system within the community, the community will often resist the emergence of MOs (Fafchamps, 1992; Platteau, 2000). Therefore more social pressures to share (proxied by more social homogeneity) and more rainfall variability (representing the need for more sharing) can be expected to constrain the emergence of MOs. Social conservatism can limit the emergence of MOs, at a net social cost for the community (Kuran, 1988; Hoff and Sen, 2006).

Overall, based on their widespread presence and the high level of household participation, one can reasonably conclude that VOs represent an important channel for governments, NGOs, and bilateral donors in reaching smallholders. The classification in MOs and COs has revealed that both types of organizations have developed rapidly and are today remarkably present in both countries, although with differences across geographical zones. Regions characterized by lower economic opportunities and greater social homogeneity tend to favor the presence of COs over MOs. However, despite their wide coverage, VOs may be limited in their capacities to generate benefits for their members.

4. PERFORMANCE

The previous section showed that VOs offer a major channel to reach smallholders. However, their capacity to “make a difference” in rural development will also depend on their

effectiveness at servicing their members. In this section, we show that these organizations are in fact relatively weak at delivering benefits to their members. Two hypotheses are tested to explain this apparent poor performance: they have weak managerial capacity; and they lack sufficient resources to make a difference. Neither can be rejected.

Around 20% of all registered organizations had not undertaken any activity by the time of the survey. In addition, for those with projects, many are not a source of significant economic benefits for their members. This is supported by numerous observations made in the case studies. In Senegal, for instance, one VO leader in the village of Dombe explained that richer households do not participate to these organizations as benefits are too limited for them. On the same line, a household head in Mbalamson village explained that participating to the local VO was not interesting to him as the amount of credit given by the organization was too low. Finally, in Burkina Faso, a woman stopped participating into an organization after she financially contributed nine years to an organization from which she derived no benefits. This section analyzes the effective capacities of MOs and COs at generating resources for their members and their communities. We first describe to what extent these organizations can be considered “professional”, before analyzing the level of their activities given the financial constraints they face.

(a) Professionalism and specialization

A striking feature of most organizations in both Senegal and Burkina Faso is the importance of bureaucratic procedures and the formalism of rules that characterizes their governance structure. As shown in Table 4, 59% of COs and 38% of MOs in Senegal condition members' participation on acceptance of a formal code of conduct; these numbers reach 73% and 84%, respectively, in Burkina Faso. Furthermore 65% of Senegalese COs and 47% of MOs have a control commission to overlook the activities of the board of directors; 63% and 58%, respectively, in Burkina Faso. Finally, formal accounting systems are used in 66% of the COs and 77% of the MOs in Senegal;

83% and 86%, respectively, in Burkina Faso. Indeed, a general impression derived from case studies is the great deal of importance given to formalism in defining and implementing administrative procedures. Question, however, is whether this formal structure of the organizations benefits the quality of the services they provide.

(Table 4 here)

An indicator of weakness in service provision is the fact that a majority of MOs in both countries undertake public good-type activities (Table 1). This is interpreted as a necessary complement to their direct service function, but at a cost. It makes up at private cost for public goods deficits and allows the organization to buy legitimacy with the village population, particularly when there is more social homogeneity and intense pressures to share. Even highly professional MOs such as the cotton organizations in Burkina Faso finance schools and health centers to make up for deficits in local public goods.

Does the quality of governance and, for MOs, the pressure to deliver public goods make a difference on performance? In Table 5, we explore the correlations that exist between the extent of bureaucracy characterized in Table 4 and the performance of the organization. Performance is measured as the proportion of members that are said to have benefited at least once from the organization. Due to important co-linearity between the variables presented in Table 4, we regroup four of these variables into two: a “control” variable which is equal to one if the organization has a control commission or a written code of conduct, zero otherwise; and a “professional management” variable which is equal to one if the organization maintains either an accounting or registry book, zero otherwise.

(Table 5 here)

Results indicate that greater management capacity is related to performance for MOs in Senegal. Greater controls, in general motivated by concern with egalitarianism, is a negative factor for MO performance in Burkina Faso. Similarly, delivery of public goods by an MO is

associated with lower performance, acting as a tax on members. Finally, multitasking, whereby the MO provides diversified services, is not related to lesser participation in benefits. While multitasking may lower the quality of each service, it also allows to serve a broader clientele internal to the organization as households are rarely specialized in their economic activities.

For MOs, why would there be a negative relationship between performance and the level of controls? Evidence gathered during the case-studies suggest that they tend to be highly concerned with equity and solidarity, eventually at the cost of efficiency. For instance, in the name of equity, the organization to promote women in Dombé randomly chooses which members will be allocated a credit in a particular year. In the organization in Khandané, leaders explained that the collective field had as a first objective to “reinforce solidarity among members”. In the same village, the organization chose which members to benefit on the basis of their representativeness of the different village neighborhoods. In Goweth Waden, the women’s organization collective field was equally divided into 75 plots, each cultivated by a member. All benefits from the field were then directed at supporting the organization. In these contexts of severe lack of resources, sophisticated administrative procedures thus seem to be motivated more by equity in benefit sharing than by efficiency in the formation of benefits. Given extensive pressures to share in West Africa’s village societies (Platteau, 2000), it is not surprising that organizations are subjected to the same demands. Gaining greater independence from equity considerations, for instance by recognizing differential entrepreneurial abilities across members, could be a source of efficiency gains for MOs in the typical West Africa village environment.¹²

For COs, which are basically engaged in the distribution of public goods and transfers, greater controls are associated with greater performance in providing access to benefits to their members in Burkina Faso. For these organizations, controls matter more than professional management in relating to performance.

We thus conclude that professional management matters for the performance of MOs, while performance suffers from having to deliver public goods (acting as a tax on the organization) and

from being subjected to greater controls, expectedly motivated by concerns with egalitarianism. The performance of COs benefits from both greater controls, possibly reducing elite and leader capture of benefits in sharing benefits across members.

(b) Penny capitalism¹³

Repeated field observations suggest that, even though most participants declare having derived benefits from the organization they participate in -- in Senegal, 86% of VO members are said to have received direct benefits from it; similar estimate for Burkina Faso is 67% --, these benefits are usually very limited. The most important reason cited by leaders is the organizations' lack of financial resources. The "soft" component of the services provided by the organizations, such as training and information, is usually less constrained than the "hard" component of providing members with access to credit, inputs, and infrastructure, biasing service provision toward the former. In this section we use qualitative and quantitative evidence to illustrate the financial constraints faced by the organizations.

As revealed by case-studies, availability of funding is particularly important at the origin of the organization, when a relatively substantial investment is required to start the desired activity. In particular, most activities (in either MOs or COs) require initial investment in costly infrastructures. These can range from productive investments such as a water pump in MOs, or a social infrastructure investment such as a building for a community or health center in COs. To afford these investments, the organizations typically rely on three sources of funding: (i) members fees, (ii) funds generated by group activities such as a collective field, and (iii) resources obtained from external partners.

Although widespread (in Senegal, 78% of the organizations require financial participation from their members, and 72 % in Burkina Faso), **members fees** are limited by households' low financial capacity. In our surveys, the average annual fees per member were US\$3.5 in Senegal and US\$4.6 in Burkina Faso. In most cases, revenues derived from cultivation of a **collective**

field are also minute. The average size of the field is less than 2 hectares in both countries and in the vast majority of cases the associations cannot afford a fence of any kind, preventing the cultivation of high value crops. Overall, collective field benefits are small and a large part of the money earned is dedicated to mutual insurance or is transferred to traditional leaders.

Due to weakness of these two sources of funding, VOs are mostly dependent on resources provided by **external partners** in order to start their activities. It is often the case that these organizations are created and obtain their legal status in order to be able to receive external funding. It is once external funding has been secured that the organization effectively starts to exist. An example is given by the Wenisondra (“May God Help Us”) organization in Burkina Faso. This organization was created in 1985 and has 17 members. Until the time of the survey, it had not undertaken any activity. Its main reason to exist was to wait for an external partner willing to work in the village.

Table 6 presents the coefficients on the percentage of members who benefited linked to the type of support provided by external partners. For this, three different variables are used: (i) has the organization ever received a grant from an external partner? (ii) has it ever received a loan from an external partner? (iii) has it ever received training from an external partner? Results do not show any significant relation for MOs (remembering that we have small samples of MOs and COs with a great deal of heterogeneity), but they do show that access to resources – grants in Burkina Faso and loans in Senegal – are related to enhanced performance in COs. Formal training, by contrast, does not seem to help for what COs do.

(Table 6 here)

To further illustrate how the overall lack of resources constrains performance, we describe below three types of organizations focused on specific activities commonly pursued by MOs in Senegal and Burkina Faso.

Processing and marketing organizations. These organizations typically assist their members in benefiting from arbitrage opportunities through information and credit. The majority of these

MOs provide their members with information about commodity prices on local markets, and several of them offer training in marketing, mainly through their external partners. A number of them also give credit to their members. However, the maximum amount per year for an individual is very limited, divided in small equal amounts (between US\$ 35 and US\$ 65 in the organizations surveyed), and allocated in a rotating fashion. Again, egalitarian concerns determine the allocation of resources across members. However, in spite of this, in most cases the organization is not able to give credit to all members every year.

Horticulture organizations. Horticulture organizations provide sources of revenue from agriculture in the off-season relative to field crops. Their main requirement to exist is access to an irrigated field. The primary role of the organization is to provide the infrastructure needed for horticulture. However, although these organizations provide numerous market services, the activity remains on a small scale. In Burkina Faso, 71% of these organizations have access to a pump (generally provided by an external partner) to deliver water to a common field. However, in Senegal, water is carried by buckets 40% of the time. Several organizations provide their members with seeds, fertilizers, and pesticides, and a large number have received external training in horticulture in the past three years. However, less than 25% of these MOs have a warehouse to stock inputs or production, and none provide their members with access to a vehicle. Overall, in both countries, only 5% of these organizations have had written contracts with wholesalers, suggesting a relatively small scale in their level of activity and a high level of informality in market participation.

Cotton organizations. Because cotton cultivation was rare in the regions surveyed in Senegal, our data do not allow for a description of this activity there. In Burkina Faso, cotton organizations are usually dependent on the Société des Fibres et Textiles du Burkina Faso¹⁴ (SOFITEX) for their access to inputs and for the marketing of their production. Producers are responsible for the quality of the product (graded as high/medium/low), which has a decisive impact on the price received from SOFITEX. Cotton organizations offer numerous market services to their members

but lack infrastructure and equipment for cultivation. More than 75% of the cotton organizations provide access to inputs and organize the marketing of output which is essentially done via SOFITEX. In addition, a number of them receive regular training in cotton cultivation. However, only 42% of these organizations own tools, 28% have a warehouse for inputs or outputs, and less than 1% provide their members with access to a tractor.

Overall, MOs show a remarkable dynamism in providing their members with information and advice (soft component), but are relatively weak in giving them access to financial services, materials, and infrastructure investments (hard component). This is due to a severe lack of financial resources, limiting the scope of their activities in support of income generation.

5. PARTICIPATION IN BENEFITS

Is poor performance – i.e., limited access to benefits for members – due to elite capture and corruption? Even though capture of benefits by elites and leaders has been extensively decried in the literature on VOs, this does not seem to be the case in West Africa, in part due to extensive openness of access to membership and strong internal checks on the distribution of benefits. Indeed, these organizations are quite inclusive of poor households in the villages. As shown in Table 7, although poorer households are slightly under-represented relative to the village distribution across welfare classes in Burkina Faso, participation of the poor is comparable to their population share in the villages in Senegal.¹⁵ This is in contrast with the case study findings of Thorp, Stewart, and Heyer (2005) who observe that organized groups tend to exclude the poorer community members, but with exceptions where a culture of inclusiveness prevails, which may well correspond to our West African village settings. They observe inclusion when the non-poor benefit from inclusion of the poor (for instance to secure a larger volume of throughput), when there are no technical barriers to entry, and when there is external support in favor of inclusiveness. With the importance of sharing norms in African villages, and the insurance value of the size of the participating network, it is not surprising that inclusiveness

tends to prevail.

(Table 7 here)

We test this hypothesis in Table 8, where the dependent variable measures whether or not poor households tend to be under-represented in the organization as compared to their share in the village population. This indicator is equal to 0 if the proportion of poorer and medium poor households within the organization is lower than their proportion within the village, and is equal to 1 otherwise. Results show a common pattern in MOs in the two countries (columns 1 and 3), supporting the hypothesis that more pressures to share are associated with more inclusion of the poor. Indeed, in Burkina Faso, we find that social heterogeneity (less social pressure to share) is linked to less inclusion of the poor, while it is the opposite for environmental risk (more need to share). We also note the positive effect of remoteness which further supports the hypothesis of more incorporation when there is more need to share. Results for Senegal also show a positive effect of environmental risk on inclusion of poor households in MOs. However, we do not find a significant effect of social heterogeneity, but we note the negative effect of the village size on inclusiveness, which tends to support the hypothesis that where there are more opportunities and less pressures to share, poor households are more under-represented in MOs. The interpretation is further supported by the contrasts between MOs and COs in the two countries: we find either opposite signs or large differences in the magnitude of the point estimates on the social heterogeneity and environmental risks variables.

(Table 8 here)

The literature often mentions the problems of local elite capture and corruption by leaders as sources of inefficiency in local development projects (e.g., Platteau and Abraham, 2002). In VOs in particular, this phenomenon has been highlighted many times (Tendler, 1983; Thorp et al., 2005). As observed in our case studies, this problem is not unknown in Senegal and Burkina Faso. For instance, the leader of the group for the promotion of women in Goweth Waden absconded with the members' financial contributions. In the MO in Dombe, only the leaders

obtained one of the animals that had been provided to the organization by a local NGO. But, how large a problem is this?

We can use the survey data to investigate whether the capture problem is anecdotal or generalized across the organizations. Although the data do not allow us to measure the intensity of benefits per member, we asked if each household had ever benefited from the activities of each organization to which it participates.

We report in Table 9 the shares of benefited households across welfare categories. We compare the share of beneficiaries in each welfare category to the share of beneficiaries in the organization at large. Panel A presents the results when considering all VOs, while panels B and C report the estimates for MOs and COs, respectively. Results show that there is no obvious systematic difference in the proportion of beneficiaries across social categories in MOs. In both countries, the only significant differences are found within COs, where rich members (Burkina Faso) and the non-poorest (Senegal) tend to benefit more than the village average.

(Table 9 here)

The existence of significant differences among CO members but not among MO members are worth discussing. Because MOs provide support to production and marketing activities, one could expect that richer households benefit more from these organizations. Although our indicator is binary and does not capture possible differences in the level of benefits, the absence of clear differences does suggest that MO activities are in general equally favorable to all their members. However, as was clear from Table 1, a number of MOs also undertake public goods activities. One may, therefore, argue that poorer households, less able to benefit from production or marketing activities, essentially benefit from MOs through these public goods transfers. To test this hypothesis, we restrict in Table 9 the MO sample to organizations that do not provide public goods. There is no indication of differences in benefit rates across welfare classes. We thus conclude that there is no visible elite capture of MO benefits. Weak performance of MOs in creating benefits for their members must thus come from another factor than elite capture. Indeed,

we have seen that high concern with equity in setting up bureaucratic procedures, which is effective in fending off elite capture, may occur at the cost of efficiency.

The apparent bias in favor of richer members within COs is more suspicious. Indeed, it would be expected that these organizations providing public goods benefit at least all their members, if not the entire community. The significant difference highlighted for COs in Table 9 may therefore suggest that other phenomena are at play, the straightforward hypothesis being the presence of elite capture within these organizations. Indeed, being essentially redistributive organizations, COs may facilitate rent seeking behavior from some of its members. If true, one would then expect that leaders benefit more from the services of the organization than the rest of the members, engaging in corruption.

We test this hypothesis by calculating for each organization the proportion of all members who are said to have benefited from the organization they belong to, along with the separate proportions for leaders and non-leaders within the organization. Contrasting the appropriation of benefits between leaders and non-leaders shows the remarkable ability of bureaucratic procedures in holding in check potential abuse of leadership. Leaders do not derive differential benefits from MOs compared to other members. In COs, we see that leaders derive less benefits than other members in Senegal. While there may be a bias in reporting, we were frequently told in case studies that leaders are cautious in not being served first not to jeopardize their leadership positions. The observed differences within COs in Table 9 may then be attributed to different mix of poverty levels across organizations. Systematically associating resource management by local organizations with elite capture, as done in much of the literature on decentralization and participation, can be quite misleading. Here, the issue is less capture and corruption than low management capacity and lack of access to resources.

6. CONCLUSIONS

Starting in the 1990's with withdrawal of the role of the state and increasing interest of

governments and development agencies in village organizations, in particular for their support to the competitiveness of a smallholder sector, VOs have become central partners for governments, non-governmental organizations, and bilateral donors engaged in rural development. Nevertheless, few studies have characterized the effective capacity of VOs at reaching the rural poor and making a difference for them in Africa. Using both extensive case studies of organizations and two large surveys we implemented in Senegal and Burkina Faso, this paper has characterized their reach as well as their capacities and main constraints in generating benefits for their members and the communities they belong to.

Results suggest that VOs provide governments and donors with a major channel to reach the rural poor. Their rapid development over the past two decades in both countries means that today there is at least one organization in the vast majority of villages, and that most households participate in such organizations when they exist. Distinguishing between COs and MOs, we find an extensive and quite remarkable presence of both types of organizations, serving different clienteles as they have different functions.

Diffusion remains, however, incomplete. Analysis of the distribution of MOs and COs reveals an important heterogeneity across the different agro-ecological regions in the countries. Regions with better access to national and international markets are better endowed in MOs, whereas those facing more environmental constraints are better endowed in COs. Furthermore, estimation of correlates of the presence of each type of organization at the village level shows that MOs are less present in the more remote and more socially homogenous communities. This does not apply to COs. We attributed these constraints on the emergence of MOs to low investment incentives and to social conservatism toward economic differentiation as it can threaten the reproduction of mutual insurance systems.

We then analyzed the performance of organizations in generating benefits for their members. We found that, despite an elaborate set of formal rules that act as guardians of equity in distributing (COs) or accessing (MOs) benefits, their effectiveness is limited. One of five

organizations has never been active. Furthermore, for the ones that are active, MOs are often poorly specialized in a single activity and taxed by the need to provide public goods that are in deficient supply by the state. Results suggest that MOs are more effective in providing their members with services requiring few resources, such as training and information. By contrast, they are less able to provide their members with access to credit and to costly infrastructures due to weak management capacity and lack of financial resources. This limits their activities to supporting “penny capitalism”. Institutional richness does not (yet) translate into substantial material benefits that could make a difference in rural development and support the competitiveness of a smallholder sector.

Low benefits are not due to leadership capture, of which we find no evidence, nor of elite capture for which we found no evidence in MOs and only limited in COs, especially when internal controls are in place. This is consistent with prevalence of administrative rules strongly concerned with egalitarianism in benefit sharing, a distinctive feature of West African village societies.

These results suggest several policy implications to support VOs. First, organizations should be considered in their diversity. In particular, MOs and COs do not require similar types of assistance. MOs typically generate income opportunities for their members, and management capacity is crucial for the organization to access resources and manage them effectively. By contrast, COs are essentially redistributive organizations. For this reason, financial support to COs through grants and loans is critical for them to have public goods and transfers that they can distribute to members. Second, VOs are highly dependent on the community context in which they evolve. In some cases, efforts should be made to encourage the emergence of MOs otherwise constrained, either through support to local entrepreneurs, or through the provision of efficient insurance mechanisms so that differentiation is no longer perceived as a threat to the community. The encouraging observation is that elite capture and corruption do not appear to be constraining factors on performance. What organizations need to effectively make a difference in enhancing

revenues for their members and their communities is greater access to professional capacity building and to financial resources. Only then will extensive presence of organizations translate into more than penny capitalism, and effectively support successful smallholder agricultural development and improved rural well being in West Africa.

REFERENCES

- Ba, C.O., Ndiaye, O., & Sonko, M.L. (2000). "Le mouvement paysan Sénégalais", Plateforme d'appui aux organisations paysannes, REDEV.
- Berdegú, J.A. (2001). *Cooperating to Compete: Associative Peasant Business Firms in Chile*. Wageningen University and Research Centre, Department of Social Sciences, Communication and Innovation Group. Wageningen, The Netherlands.
- Boccanfuso, D., & Kaboré, S.T. (2004). "Croissance, inégalité et pauvreté dans les années quatre-vingt-dix au Burkina Faso et au Sénégal." *Revue d'Economie du Développement*, 2 , 9-35.
- Collion, M-H., & Rondot, P. (1998). "Background, Discussions, and Recommendations." In *Agricultural Producers Organizations: Their Contributions to Rural Capacity Building and Poverty Reduction*, P. Rondot & M-H. Collion eds., The World Bank.
- Diagne, A. & Pesche, D. (1995). *Les organisations paysannes et rurales des acteurs du développement en Afrique sub-saharienne*, Réseau GAO, Paris.
- Donnelly-Roark, P., Ouedraogo, K., & Ye, X. (2001). "Rural Decentralization in Burkina Faso, Local Level Institutions, and Poverty Eradication." *World Bank Findings* No. 178.
- Durlauf, S.N., & Fafchamps, M. (2004). "Social Capital." *NBER Working Paper* No. 10485.
- Fafchamps, M. (1992). "Solidarity Networks in Pre-Industrial Societies: Rational Peasants with a Moral Economy." *Economic Development and Cultural Change*, 41(1), 147-174.
- Grootaert, C., Oh, G-T., & Swamy, A. (2002). "Social Capital, Household Welfare and Poverty Reduction in Burkina Faso." *Journal of African Economies*, 11(1), 4-38.
- Hoff, K., & Sen, A. (2006). "The Kin System as a Poverty Trap?" In S. Bowles, S. Durlauf, and K. Hoff, eds., *Poverty Traps*. Princeton University Press.
- Kuran, T. (1988). "The Tenacious Past: Theories of Personal and Collective Conservatism." *Journal of Economic Behavior and Organization*, 10(2), 143-171.
- Malassis, L. (2000). *La Longue Marche des Paysans Français*. Paris: Fayard.

- Mansuri, G., & Rao, V. J. (2004). "Community-Based and -Driven Development: A Critical Review." *World Bank Research Observer*, 19(1), 1-39.
- Mercoiret, M-R, & Berthomé, J. (1997). "Etats désengagés, paysans engagés: Perspectives et nouveaux rôles des organisations paysannes en Afrique et en Amérique Latine." Montpellier: CIRAD.
- Mercoiret, M-R, Pesche, D., & Bosc, P-M. (2006). "Rural Producer Organizations for Pro-Poor Sustainable Development." Montpellier: CIRAD.
- Platteau, J-P. (2000). *Institutions, Social Norms, and Economic Development*. Amsterdam: Harwood Academic Publisher.
- Platteau, J-P, & Abraham, A. (2002). "Participatory Development in the Presence of Endogenous Community Imperfections." *Journal of Development Studies*, 39(2), 104-136.
- Schultz, T.W. (1964). *Transforming Traditional Agriculture*. Chicago : The University of Chicago Press.
- Tax, S. (1963). *Penny Capitalism : A Guatemalan Indian Economy*. Chicago: The University of Chicago Press.
- Tendler, J. (1983). *What to think about Cooperatives? A guide from Bolivia*. Rosslyn, Virginia: The Inter-American Foundation.
- Thorp, R., Stewart, F., & Heyer, A. (2005). "When and How Far is Group Formation a Route Out of Chronic Poverty?" *World Development*, 33(6), 907-20.
- Uphoff, N. (1993). "Grassroots Organizations and NGOs in Rural Development: Opportunities with Diminishing States and Expanding Markets." *World Development*, 21(4), 607-22.
- Uphoff, N., & Wijayarathna, C.M. (2000). "Demonstrated Benefits from Social Capital: The Productivity of Farmer Organizations in Gal Oya, Sri Lanka." *World Development*, 28(11), 1875-90.
- World Bank. (2002). *Reaching the Rural Poor: A Renewed Strategy for Rural Development*. Washington DC.

Table 1. A classification of village organizations according to activities ever undertaken

	Senegal ¹		Burkina Faso ¹	
	CO (1)	MO (2)	CO (3)	MO (4)
Organizations performing community-oriented activities (%)				
Collective field, casual labor, and cereal bank for solidarity	52.1	25.1	76.3	61.3
Environment and village upkeep	41.2	22.9	26.1	14.9
Stone bunds	0.0	0.0	8.1	3.7
Social activities	21.1	3.5	3.6	2.9
Water management	2.5	0.0	2.7	3.9
Other community-oriented activities ²	11.3	19.9	8.6	27.2
At least one activity	100.0	55.6	100.0	69.3
Organizations performing market-oriented activities (%)				
Processing and marketing	0.0	41.1	0.0	37.1
Livestock breeding and animal husbandry	0.0	24.7	0.0	28.9
Horticulture and crop production	0.0	20.2	0.0	24.5
Cotton	0.0	0.0	0.0	12.2
Fishing and fish trade	0.0	8.1	0.0	0.0
Handicraft	0.0	8.1	0.0	1.01
Other market-oriented activities ³	0.0	28.2	0.0	13.0
At least one activity	0.0	100.0	0.0	100.0
Organizations not active over the past year (%)	13.5	8.9	15.6	4.4
Number of observations	61	255	297	320
Percentage of underlying population	25.7	74.4	58.8	41.2

¹ 21.2% of the VOs surveyed in Senegal and 19.4% of the VOs surveyed in Burkina Faso had never led any activity at the time of the survey and could therefore not be classified as MO or CO.

² Other community-oriented activities include literacy training, health training, school maintenance, parent associations, and women advocacy groups.

³ Other market-oriented activities include handicraft, poultry, beekeeping, brick making, and boat maintenance.

Table 2. Correlates of the presence of MOs and COs in Senegal, weighted logit

	Mean	Marginal effects at mean of independent variables			
	[std. dev.]	(t statistics)			
	(1)	MO	(3)	CO	(5)
Village size (log)	3.279 [1.039]	0.243 (2.44)**	0.214 (2.27)**	0.255 (4.17)***	0.235 (3.98)***
Distance to town (base: <5 km)					
5 - 10 km	0/1	-0.436 (-3.32)***	-0.413 (-2.72)**	-0.094 (-1.11)	-0.090 (-0.91)
> 10 km	0/1	-0.125 (-1.42)	-0.115 (-1.15)	0.068 (0.66)	0.085 (0.67)
Region (base: Peanut Basin)					
Niayes	0/1	0.060 (0.85)	-0.250 (-1.26)	-0.221 (-1.86)*	-0.188 (-1.15)
Fleuve Valley	0/1	0.242 (2.13)**	-0.071 (-0.28)	-0.433 (-3.05)***	-0.414 (-3.28)***
Main ethnicity dummies included		Yes	Yes	Yes	Yes
Caste fragmentation	0.090 [0.152]		0.596 (2.29)**		0.325 (1.11)
Rainfall variability (cm)	15.476 [3.049]		-0.046 (-1.58)*		0.003 (0.14)
Number of observations		245	245	245	245

* significant at 10%, ** significant at 5%, *** significant at 1%

Table 3. Correlates of the presence of MOs and COs in Burkina Faso, weighted logit

	Mean	Marginal effects at mean of independent variables			
	[std. dev.]	(t statistics)			
	(1)	MO (2)	(3)	CO (4)	(5)
Village size (log)	6.882 [0.797]	0.070 (1.93)*	0.051 (1.29)	0.029 (0.83)	0.029 (0.82)
Distance to town (base: <5 km)					
5 - 10 km	0/1	-0.281 (-1.62)	-0.291 (-1.59)	0.086 (0.66)	0.087 (0.65)
> 10 km	0/1	-0.358 (-3.23)***	-0.388 (-3.27)***	-0.058 (-0.71)	-0.059 (-0.68)
Region (base: Centre Nord)					
West	0/1	0.427 (3.69)***	0.380 (3.29)***	0.008 (0.04)	0.022 (0.08)
South	0/1	0.029 (0.14)	-0.054 (-0.26)	-0.329 (-1.19)	-0.332 (-1.20)
North	0/1	0.167 (1.08)	0.128 (0.74)	-0.122 (-0.99)	-0.112 (-0.64)
Southeast	0/1	0.132 (0.88)	0.056 (0.44)	0.134 (1.02)	0.148 (0.66)
Main ethnicity dummies included		Yes	Yes	Yes	Yes
Ethnic fragmentation	0.142 [0.194]		0.439 (1.70)*		-0.005 (0.39)
Rainfall variability (cm)	15.570 [5.660]		-0.006 (-0.34)		0.001 (0.39)
Number of observations		268	268	268	268

* significant at 10%, ** significant at 5%, *** significant at 1%

Table 4. Formal administrative procedures in MOs and COs

	All VOs	Senegal COs only	MOs only	All VOs	Burkina Faso COs only	MOs only
Percentage of organizations having the following:						
Code of conduct	46.8	58.7	38.4	76.9	72.7	83.5
Penalties	50.8	39.5	58.8	66.3	66.5	66.1
Board of directors	12.6	10.3	14.2	48.7	46.2	52.5
Control commission	54.5	64.9	47.1	61.2	63.3	57.9
Accounting book	72.4	65.7	77.1	84.1	83.1	85.7
Proceedings book	39.4	49.8	32.1	64.3	62.5	67.1

Table 5. Correlates of performance and governance

Dependent variable: % members that are said to have benefited from the organization	Burkina Faso		Senegal	
	CO (1)	MO (2)	CO (3)	MO (4)
Control (Code of conduct, control commissions)	.003 (0.02)	-0.189 (-2.47)**	0.879 (8.40)***	0.054 (0.62)
Professional management (Accounting and proceedings)	-0.069 (-0.75)	-0.014 (-0.11)	-0.075 (-1.59)	0.153 (2.86)**
MO provides public goods		-0.110 (-1.79)*		.072 (1.05)
MO does multitasking		-0.148 (-1.18)		.022 (1.21)
Other controls+	yes	yes	yes	yes
Regional dummies included	yes	yes	yes	yes
Number of observations	134	158	44	167

t-statistic in parenthesis.
+Other controls include: Number of years since creation and actual number of members (log)
* significant at 10%, ** significant at 5%, *** significant at 1%

Table 6. Correlates of performance and external support

Dependent variable: % members that are said to have benefited from the organization	Burkina Faso		Senegal	
	CO	MO	CO	MO
	(1)	(2)	(3)	(4)
Grant	0.285 (2.87)**	-0.018 (-0.21)	-0.078 (-0.80)	-0.002 (-0.03)
Loan	0.099 (1.49)	0.066 (1.19)	0.202 (4.87)***	-0.026 (-0.28)
Training	-0.261 (-1.74)*	0.078 (0.45)	-0.136 (-0.47)	0.059 (0.79)
Regional dummies included	yes	yes	yes	yes
Number of observations	135	158	44	167

t-statistic in parenthesis.
* significant at 10%, ** significant at 5%, *** significant at 1%

Table 7. Household participation in MOs and COs by welfare class

	Senegal			Burkina Faso		
	(1)	MO (2)	CO (3)	(4)	MO (5)	CO (6)
	Village	Participants to organizations		Village	Participants to organizations	
Poorer (%)	40.0	39.3	40.1	32.4	25.3	28.8
Medium poor (%)	33.6	37.6	29.3	34.7	36.1	34.6
Medium rich (%)	21.2	17.2	25.3	23.8	27.3	26.9
Richer (%)	5.2	5.9	5.4	9.2	10.6	9.2

Table 8. Correlates of the probability that the poor are under-represented

Dependent variable: =0 if poor are under-represented =1 if poor are not under-represented	Marginal effects at mean of independent variables (t statistics)			
	Burkina Faso		Senegal	
	MO (1)	CO (2)	MO (3)	CO (4)
Village size (log)	-0.040 (-0.89)	0.145 (2.00)*	-0.192 (-1.63)^	0.189 (1.16)
Distance to town (base: <5 km)				
5 - 10 km	0.152 (1.11)	0.084 (0.62)	-0.539 (-1.38)	0.459 (1.55)^
> 10 km	0.195 (1.78)*	0.104 (0.43)	-0.233 (-1.03)	0.740 (1.53)^
Regional dummies included	yes	yes	yes	yes
Main ethnicity dummies included	yes	yes	yes	yes
Social heterogeneity+	-0.340 (-1.67)*	0.414 (1.27)	-0.012 (-0.03)	0.636 (1.28)
Rainfall variability (cm)	0.002 (1.57)^	0.001 (0.84)	0.009 (2.63)**	-0.013 (-1.18)
Number of observations	163	137	178	46

+Measured by a caste fragmentation indicator in Senegal and an ethnic fragmentation indicator in Burkina Faso.
* significant at 10%, ** significant at 5%, *** significant at 1%, (^ significant at 15%)

Table 9. Share of members benefited by the organization by welfare class

	Burkina Faso	Senegal
MOs only		
All members	67.1	83.6
Poor	65.2	79.2
Medium poor	66.3	87.4
Medium rich	68.2	87.1
Rich	70.6	77.3
COs only		
All members	57.1	81.4
Poor	54.5	74.3***
Medium poor	55.2	90.0***
Medium rich	60.7	87.8***
Rich	61.6**	82.8
MOs without public good activities only		
All members	76.7	80.2
Poor	69.8	75.7
Medium poor	78.6	83.5
Medium rich	80.1	82.9
Rich	75.1	71.2
Significance of difference with all members		
* significant at 10%, ** significant at 5%, *** significant at 1%		

NOTES

¹ The World Bank's annual investment in CDD programs increased from US\$325 million in 1996 to US\$2 billion in 2003. In most cases, implementation of these programs was carried out in partnership between development agencies and local VOs.

² For Senegal, see Ba, Ndiaye, and Sonko (2000).

³ These programs, the PSAOP in Senegal and the PNDSA II in Burkina Faso, were organized with World Bank support following the CDD approach. They consisted in establishing district level councils with the function of allocating resources to VO capacity building projects submitted by organizations on a competitive basis.

⁴ The samples include all organizations that were created since the beginning of the 1980's. Organizations that disappeared before 2002 were surveyed and reported as "inactive". Our samples do not include government-created and managed cooperatives that emerged after independence and disappeared with withdrawal of the state from rural areas in the mid 1980s.

⁵ Both are the smallest administrative units above the village. In Senegal, each Communauté Rurale is composed on average of about 40 villages. In Burkina Faso, each department is composed on average of about 30 villages.

⁶ All descriptive statistics and estimations presented in this paper include sampling weights. All standard errors are adjusted for cluster and strata (regions) corresponding to the survey design.

⁷ This classification is different from that of Donnelly-Roark et al. (2001) who classify VOs according to their legal status.

⁸ The Centre-North is often referred to as the "Mossi Plateau".

⁹ The Six-S (Se Servir de la Saison Sèche en Savane et au Sahel (Making Use of the Dry Season in the Savannah and the Sahel)) movement was originally created in the Mossi Plateau provinces and gives support to village-level organizations based on traditional structures (such as the Naam groups) and aimed at community development.

¹⁰ The FONGS (Fédération des Organisations Non-Gouvernementales du Sénégal) was created under the impulse of Mamadou Cissoko.

¹¹ We believe that, in Senegal, castes more than ethnicities are a good approximation of social networks. In our field work, we observed a much clearer distinction between castes than between ethnicities (for example, the Peuls and Toucouleurs speak similar languages and are often assimilated). Finally, in Senegal, people often speak of the “Wolofization” of certain ethnic groups or individuals, indicating that they speak Wolof and no longer their mother tongue. The hierarchical caste system in Senegal is divided into three main groups: the Geer (freeborn/nobles), jaam (descendants from enslaved prisoners), and the neeno (people of caste). In our sample, the main castes are the freeborn, the slaves, the leather workers, the musicians, and the blacksmiths. We did not find such an important caste system in Burkina Faso. For this reason, we use for that country a more conventional indicator of ethnic fragmentation.

¹² Analyzing 410 producer organizations in Chile, Berdegú (2001) finds that the ones that succeed have strict rules relating individual rewards to performance, as opposed to rewards dictated by equity considerations.

¹³ The concept of “penny capitalism” was introduced by Sol Tax (1963) in his classical work in the highlands of Guatemala where he noted that indigenous markets followed a laissez-faire tradition in a context of rampant poverty. Schultz (1964) used this idea to develop the concept of “poor but efficient”, where resource constraint is the limiting factor to escaping from poverty, not misallocation of resources.

¹⁴ Fiber and Textile Society of Burkina Faso.

¹⁵ These estimates are based on classification by a panel of villagers of all households in the village into four categories: poorer, medium poor, medium rich, and richer.