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Soil and Water Conservation Works

With Farmer-led Associations in Cape Verde: A Study in Rural Capacity Building

Tom Gardiner-ACDI/VOCA - January 1999

There are many Title II activities that use food-for-work or cash-for-work to compensate poor, rural residents for their manual labor on infrastructure and natural resource management activities. The priorities of such programs are balanced to improve a limited infrastructure in rural areas as well as provide needed employment and income to impoverished, remote people. This article is a case study of how, with some good local partners and a visionary staff, ACDI/VOCA was involved in the transformation of a traditional public works program into a vehicle for local empowerment, community accountability, entrepreneurial initiative, and grass-roots capacity building.

Until recently, Cape Verdean hillside farmers and the landless (especially women) were viewed as mere appendages to government programs promoting watershed rehabilitation in this Sahelian archipelago nation (average annual rainfall of only 250 to 300 mm). For the most part, the role of rural

people was restricted to working as day laborers on the works being built. The outcomes of this approach were not encouraging, and they included such problems as:

- A welfare attitude among workers where they expected to get paid for just showing up.
- Low worker productivity.
- Relatively costly works, and hence fewer works built from available funding.
- Poor quality control of works constructed.
- Farmer reluctance to maintain what was built because they viewed rural infrastructure, even terraces on their land, as property of the state.

Disturbed by the previous results, the government soil and water conservation service (DGASP) decided to experiment with a new approach to watershed development with support of ACDI/VOCA's Title II program (monetization). Beginning in 1995, DGASP opted to use farmer-led associations and gave them a mandate to develop annual soil and water conservation (SWC) plans for their localities and then perform the work authorized through fixed-price contracts. For the first time, sixteen associations on Santiago Island assumed full responsibility for managing the watersheds where they lived. Today, 41 associations on three islands (Santiago, Fogo, and Santo Antão) implement SWC

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Getting Connected: Reducing Livelihood Insecurity by Investing in Social Capital

Timothy R. Frankenberger, CARE/USA and James Garrett, International Food Policy Research Institute. December 1998

This paper has been edited for publication. It is the first in a series of 2 installments. This issue will focus on the theory behind the concept of social capital and includes some case studies. The next issue will explore the operational implications of incorporating social capital considerations into program design and highlight other case studies. For more information on this concept and the full version of this paper please contact Tim Frankenberger (frankenberger@care.org) at CARE USA.

Poverty is more than an economic phenomenon of limited income and physical resources (Cross et. al. 1998). Complex social dimensions can mediate fluctuations and interruptions in household resource flows and can help people act

effectively to deflect economic shocks. Until recently, formal economic growth models have ignored the importance of these social dimensions (Statz 1998). Development approaches have been evolving from an almost exclusive focus on physical capital towards a people centered approach, emphasizing the social dimensions of development, especially the role of human and social capital (Morris 1998). Social capital is now seen as one of the most important resources to take into account in poverty reduction programs.

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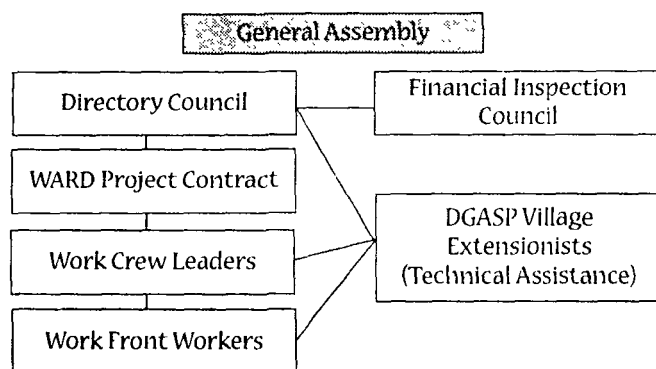
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contracts with DGASP, and the economic portfolio of association contractors has grown from \$368,000 in 1995 to \$1,800,000 in 1998.

Watershed associations construct check dams and contour rock wall terraces to protect up-stream watershed areas. Other work that DGASP contracts with associations includes, well lining and repair, irrigation canals construction, water captation dam construction, community cistern construction, nursery production and planting of trees, and planting contour vegetative barriers. Program technicians develop the contracts and technical specifications, provide organizational and technical assistance, and assure that contractors meet pre-established quality control standards. Associations receive payments based on stringent quality control inspections and actual measurement of the volumes of work produced. ACDI/VOCA provides on-going training to the associations in small business development, accounting, organizational development, participatory planning, technical aspects of SWC contracting, and quality control of work executed.

Cape Verde farmer associations - member-owned small businesses - now contract directly with DGASP to construct and/or rehabilitate rural engineering works and other SWC activities including afforestation. The associations now identify types of SWC works and appropriate sites, produce work plans, hire work crews, purchase/acquire tools and construction materials, follow quality control guidelines, bill for work completed, and pay workers in a timely manner. For all association contractors, worker productivity has shot up, resulting in the balance of the fixed price contracts remaining in the watersheds as retained earnings to the association. The organizational structure of a typical association is presented below:

Typical Organization of a Farmer-Led Association



Notes:

- 1) Associations sign a protocol agreement with OASIS (an association umbrella of NGOs in Cape Verde) which requires the association General Assembly to meet monthly.
- 2) The Directory Council also meets on a monthly basis.
- 3) To assure dialogue (especially 'bottom up' communication) during the construction season (January through June), the members of the Directory Council hold the following schedule of meetings:
 - a) first week of month - meeting with crew leaders
 - b) second week of month - meetings with workers
 - c) end of month - meeting with General Assembly Council
- 4) Extensionists provide technical assistance to the association at the levels indicated.

ADVANTAGES OF CONTRACTING WITH ASSOCIATIONS

Contracting with the member-owned associations has demonstrated several advantages that are highlighted below.

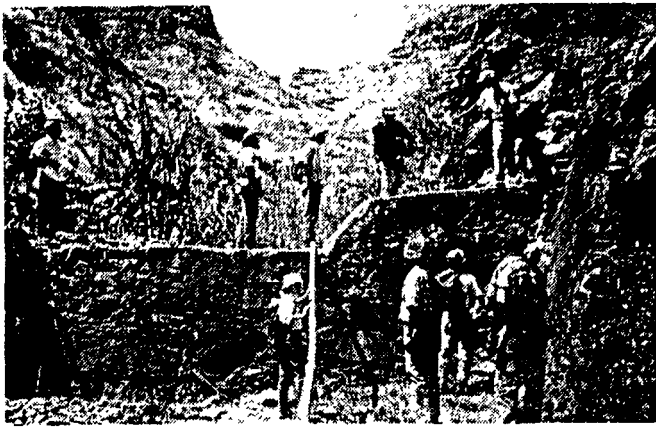
Lower administrative and recurrent costs. As compared to the state construction firm, more rural engineering works can be built for each dollar invested. The following table compares association prices for building check dams with the price charged by the State Construction Company in 1995:

Comparison of Unit Prices Authorized for Watershed Association Contractors and State Construction Company-1995-1996			
Large and Medium Check Dam Construction			
Constr. Activity and Unit of Measure	Assn. Price (US Dollar)	State Price (US Dollar)	Assn. Price as % of State Price
Excavation (M ³)	\$ 5.00	\$ 6.10	82%
Foundation (M ³)	\$ 9.00	\$25.04	36%
Above-ground Construction (M ³)	\$12.00	\$32.39	37%

Increased participation by local farmers in rehabilitating their watersheds. Since the contractor associations propose SWC and afforestation activities they would like to see implemented, local people become involved in the identification, planning, construction, field monitoring, and evaluation phases of watershed development. Association leaders have been trained in simple participatory rural appraisal methods that they use to encourage female and male farmer participation in the annual SWC planning process.

Enhanced "social appropriation". The government of Cape Verde and USAID were concerned that when the structures were built, the local watershed residents took little responsibility for maintaining them. An attitude that "if the state built it without asking us, then the state can maintain it" was quite prevalent amongst the watershed inhabitants of Santiago. However, with watershed associations now contracting to do the work, the rural residents' perspective has changed. Associations consult with local farmers about the proposed SWC works and require that any individual receiving construction benefits on his/her property sign a maintenance agreement with them. Four years of field experience have shown that the associations take great pride in what they build because they now see the SWC structures as belonging to them. Coupled with a systematic program of quality control assurance, the sense of ownership assures that the associations produce durable SWC works, thereby helping to reduce future maintenance costs. Furthermore, associations use part of their profit to carry out routine maintenance.

Positive changes in workers' attitudes. With the associations acting as direct contractors, workers are no longer compensated following a 'lean-on-a-shovel-and-get-paid' work ethic, but rather based on their productivity. Association leaders monitor work progress to assure that worker productivity stays high. Associations are committed to paying their workers according to their ability; thus each



Technicians inspect the quality of a check dam.

association compensates skilled and productive workers directly for their efforts.

Improved quality control of the works being implemented. DGASP found that decentralization helped assure stricter quality control and monitoring. Field-based Cape Verdean technicians and Santiago watershed residents developed a model of Community-based Technical Assistance using Village Extensionists - female and male technicians who work out of their homes to provide technical assistance to watershed farmers. Village Extensionists help the associations identify viable types of SWC works as well as technically-sound work sites. They visit the work sites to orient construction activities and to monitor work progress, they help orient the association's daily management activities, and they act as construction inspectors by participating in the monthly SWC works measurement/billing and in the quality control surveillance.

Capital Transfers to rural communities. Monetization funds can have a "multiplier effect" on rural communities. By encouraging the Cape Verde government to contract directly with the watershed associations, USAID guarantees that a certain amount of funding stays in the rural areas where it is most needed. Even though associations contract at significantly lower prices than the state firm, they still generate profits. Associations invest their earnings in the watershed communities - rural areas that traditionally are poorly served by a government already hard-pressed to meet other compelling commitments.

LIMITATIONS OF CONTRACTING WITH FARMER-LED ASSOCIATIONS

The associations' capabilities as general contractors are limited to works that use principally manual labor and those that, for the most part, only require on-site construction materials. Associations cannot and should not execute all types of rural engineering works because they have neither engineering design capability nor equipment (backhoes, dump trucks, hydraulic compressors, etc.). The larger, more complex, and costly rural engineering works (e.g. main tributary structures, primary road construction, etc.) are more in the domain of incorporated construction firms.

Working with associations requires significant investment in training. Most of the farmer members and their elected leaders have little formal schooling, and state institutions

traditionally are only able to invest scant resources in primary and adult education programs. Training needs to be adapted to the rural learning style (learn by doing) and to a reading/writing level of semi- and non-literate participants. Notwithstanding, Cape Verde experience shows that returns on training investments are high since people gain practical skills and self confidence, allowing them to take control of the development of their own watershed communities.

It is impractical to believe that all associations will be successful. A more realistic expectation is to accept that there will be some attrition. ACIDI/VOCA - Cape Verde works on the premise that each association has the right to succeed or fail on its own. Three groups that had contracts in 1996 have been eliminated from the program. As of January 1999, DGASP is investigating management anomalies of two others. The principal causes for association demise are mismanagement, unscrupulous leaders, or member apathy. Association failure is often due to a mixture of the above mentioned factors.

Results to Date

From 1995 to 1997 association contractors built 310 medium and large check dams, protected 265 hectares with contour rock wall terraces, constructed 8,000 meters of cement-lined irrigation canals, and planted trees and contour vegetative barriers on 210 hectares as part of their portfolio of activities. Associations have also built fuel efficient cook stoves, community and household cisterns, and other water-conserving infrastructure (impermeable mini-dams, cement-mortar water tanks, etc.).

Key to the SWC contracting process is the fact that efficient associations make a profit that stays in the local community. Only two of 25 contractor associations (8%) did not turn a profit in 1997. Each of the 23 groups that did turn a profit for that year on average made \$4,555 from their SWC contract. Examples of how associations use profits include: 1) financing other income-generating endeavors (e.g. livestock production, cottage industries, street vendors, etc.), 2) funding local community infrastructure projects (e.g. drip irrigation equipment, pumps, community buildings), and 3) supporting education/social services programs (e.g. kindergartens, adult literacy programs, etc.). Associations also annually distribute approximately 30% of their profits as bonuses or dividends to their member workers.

In 1996 sixteen associations from Santiago Island formed an umbrella NGO, OASIS (Organization of the Associations of Santiago Island). Ten of the OASIS associations recently pooled their capital to create their own rural bank (ASDIS). ASDIS will be geared to providing loans for productive investment activities to qualified lenders from within the associations' ranks.

Rural women are actively participating in the association movement. Fifty-four percent of association members are women (1,445 female members) of the 2,682 total for three islands. On Santiago, women who previously worked as day laborers under state-run employment programs, now find employment as skilled stone masons, crew chiefs, association accountants, and many have been elected as association leaders. OASIS has an active women's commission that

works to promote gender equity within the association movement.

Working with farmer-led associations is a programming option that has been successful in Cape Verde. Increased resource flows are going to the rural areas and are being invested locally. Other benefits can also be monitored and include, improved productivity, a greater sense of partner-

ship between the government of Cape Verde and the associations, and increased participation of local citizens in soil conservation and watershed development. ♣

If you want to learn more about this activity please contact Tom Gardiner at ACDI/VOCA at tgardiner@acddivoca.org.

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Although many development practitioners now want to measure and create social capital in their projects, there is still no clear consensus on what social capital is or how to measure it. The concept of social capital is often being adopted indiscriminately, adapted uncritically, and applied imprecisely (Woolcock 1997).

I. What is Social Capital: An Abridged Review of the Literature

The origins of the concept of social capital date back to the 1940's and 1950's in anthropology and sociology, where it was viewed as critical for social cohesion and social change (Moser 1997). Recently, it has gained wide usage across a range of disciplines. James Coleman, a sociologist, wrote a key paper in 1988 that made a comprehensive attempt to define and describe social capital. He defined social capital as those aspects of networks and relationships that allow actors to meet their objectives. One of the most influential recent publications is Robert Putman's book, *Making Democracy Work* (1993), written with Robert Leonardi and Raffaella Nanetti. In this work, Putman uses the term social capital to refer to features of social organization such as networks, norms and social trust that facilitate coordination and cooperation for mutual benefit.

Several studies have since been carried out to determine the link between social capital and economic development. They use a variety of approaches, conceptions, and measures of social capital to address this issue (Morris 1998). (For a comprehensive review of the literature, see Woolcock 1997).

One of the major conceptual problems associated with these works is that social capital is defined differently by different authors, and they are not at the same conceptual or operational level. This can lead to conceptual and measurement confusion. Despite this, some common themes can be drawn from the literature (Wood 1998). These include:

- social relations link economic, social and political spheres;
- stable relationships among actors can enhance effectiveness and efficiency of both collective and individual action and interaction;
- enhancing social capital involves strengthening the relationships among individuals and helping them to engage in a range of activities more effectively;
- desirable social relationships have a public good characteristic which endorses the principle that such social relationships and institutions merit public support;
- social capital can be strengthened and this will require resources;
- people use networks, associations and broad principles of social organization as a means of reducing risk, accessing

services, protecting themselves against depredation and acquiring information (Wood 1998).

Most approaches to social capital focus on those social relationships that have a positive effect on development outcomes, such as the quality of information flow, the integration of social groups, fostering organizational behavior to achieve goals, and enhancing quality of life (Wood 1998). However, these approaches down play the negative consequences of strong social relationships that can lead to exclusion, forced conformity and downward leveling pressures (Harriss and de Renzio 1997). Thus social capital can have a downside (Woolcock 1997).

II. An Operational Definition of Social Capital and its Key Dimensions

A. DEFINING SOCIAL CAPITAL

There are a number of definitions of social capital found in the literature. Drawing on the body of knowledge on social capital, the following definition is proposed:

Social capital is defined as the quantity and quality of social resources (networks, membership in groups, social relationships, access to wider institutions in society) upon which people draw in pursuit of livelihoods (adapted from Scoones, 1998). The quality of these networks is determined by the level of trust and shared norms that exist among the network members. People use these networks to reduce risk, to access services, protect themselves from deprivation, and to acquire information to lower transaction costs (adapted from Wood 1998).

We can think of social capital as a productive resource just like physical, financial or human capital. Machinery and buildings are physical capital that firms can use to produce goods or a household can use to achieve livelihood security. Cash or loans provide the financial capital needed to finance production or household income strategies. Investments in education and health strengthen an individual's ability to participate in and manage these productive processes and achieve his or her objectives. People use social relationships to acquire and use all of these capitals more effectively and also engage in a range of activities to achieve their objectives more efficiently (Wood 1998).

Intuitively, social capital is "connections" to other individuals, and to other groups. As with other capitals, it can be generated, accumulated, and transmitted (Bourdieu 1993). It can be used to produce these other capitals, or, in combination with other inputs, to achieve other objectives, such as improved livelihood security. Conversely, these other capitals, along with other inputs, could be used to produce social capital. The challenge for the development practitioner is to understand how these "human connections" are formed and how the poor use them along with other resources to improve their livelihoods.

In some ways, social capital is just putting a name to what we already know. By considering human relations as a productive resource similar to the better known capitals, the term 'social capital' emphasizes the productive nature of these relationships, and in a short-hand way, helps us understand what it is and how it might be used to improve livelihood security.

B. KEY DIMENSIONS OF SOCIAL CAPITAL

1. What social capital is

In discussing social capital, authors sometimes confuse what social capital 'is' with what produces it. Social capital is not tangible, like physical capital, but something more like human capital, not concrete and not easily measured or valued. Individuals can increase their human capital by going to school or exercising to stay healthy. But these things (education and health) are actually only inputs into the production of human capital. If measured, they can only serve as representations of the actual level of human capital. An individual then uses his or her human capital (accumulated skills and capacities) to produce goods or achieve a sustainable livelihood.

Working on projects with other members of the community can help to build social capital, just as going to school can help build human capital. But just as going to school is not itself 'human capital', working on projects is not itself 'social capital'. One might measure the level of available social capital, however, by counting the community organizations an individual belongs to, or the number of people the individual can turn to during a crisis. Likewise, one might get an idea about the level of human capital an individual has by asking about the person's level of education. An individual uses his or her accumulated social capital by drawing on the relationships with individuals or groups to achieve an end.

Just as improving health and education improves human capital, working to enhance and expand social networks improves social capital. A poor person's ability to get a small loan may depend on the lender's confidence (trust) that the individual will pay back the loan. Trust can be built over time through a series of social interactions. The potential borrower then uses that social capital to obtain the loan.

Social capital can also substitute for (or complement) other inputs that the individual uses to achieve objectives. Returning to the example of the loan, the lender's trust in the borrower compensates for the low level of assets she has available as collateral. The lender normally uses collateral to evaluate the borrower's ability to repay the loan. If the borrower uses the loan to start up a business and relies on her social networks to generate demand for her product, then she is using social capital to enhance the value of the loan. Without her social capital, the productivity of the loan would be less.

Repeated, positive interactions can strengthen social capital, and the maintenance of social networks is closely tied to the prospects of continuous mutually beneficial exchange. Betrayal of trust can quickly 'poison the well' because it destroys the possibility of continued beneficial exchange. Community networks may break down or become more decentralized under conditions of famine or chronic poverty (and probably in communities wracked with AIDS) because families no longer have the resources to reciprocate adequately.

The stock of social capital can not be sustained. Large external shocks may lead to the poorest and most vulnerable segments of the community being ejected from the networks due to the inability of the other members to carry the burden of these vulnerable households through times of stress.

2. Building Blocks of Social Capital

One of the most important building blocks of social capital is trust. Without trust, economic exchanges would be held back that support family welfare or promote development goals. Once trust has broken down, it is very difficult to reestablish it (Cross et al. 1998). Trust is extremely important when markets are imperfect. When trust is present, merchants can lower their guard, economize on transaction costs and allow for the enforcement of contracts (Fafchamps and Minten 1998).

There are three types of trust. Processes-based trust is defined as trust that is based on face-to-face interactions and personal experience. Characteristic-based trust is defined as trust that is fostered by personal characteristics such as family affiliation or ethnicity. Institutional-based trust is trust that is established through formal institutions such as laws and courts (Cross et al. 1998).

In stable communities that are often isolated, and vulnerable to risk, process-based trust and characteristic-based trust are more likely to be the basis of social capital. It is scarcity, not sufficiency that often requires people to be generous (Fafchamps 1992), and social capital is important in the management of risk. Principles of generalized reciprocity often govern exchanges in the networks found in such communities, and the people receiving the assistance do not have specific terms regarding when to pay back loans or the form of repayment.

As communities become less stable due to increasing mobility, (process based) trust based on personal, long standing relations may be replaced by institutional-based trust. Although institutions are established to provide guarantees from the law and courts to enable transactions, the poor often do not have access to such institutions because they have few assets to foreclose on (Fafchamps and Minten 1998).

In communities with high mobility, balanced reciprocity often replaces generalized reciprocity. Balanced reciprocity involves the specification of terms with any loan agreement, whereby the borrower is obligated to pay back in a specified timeframe with accrued interest on the amount borrowed (Cross et al. 1998). Balanced reciprocity is less flexible than generalized reciprocity. Poor people are usually unable to meet the balanced reciprocity terms and are therefore often dropped from the networks. The exclusion from community self-help characterizes the experience of poverty for the very poor (Moser 1997).

3. Functions of Social Capital

The purposes of social capital can be subdivided into reactive and proactive uses. Reactive uses of social capital revolve around the management of risk. Social networks manage risk in two ways. First, members in a social network or community solidarity group will try to help each other prevent the occurrence of a food or income shortfall by sharing key factors of

CASE STUDIES

Recently, a number of case studies have been carried out to determine what the contribution of social capital is on household risk management and economic outcomes. From these rural and urban case studies we can identify possible ways to measure social capital and the impact it potentially has on livelihood security.

Tanzania (rural)

A quantitative study that was carried out by the World Bank in rural Tanzania in 1997 tried to determine the effect that social capital had on household welfare of the rural poor. Social capital was measured as a single index across three dimensions: 1) household membership in various voluntary organizations or groups; 2) characteristics of those groups with regards to kin and income heterogeneity; and 3) values, attitudes and trust in various groups and perceptions of social cohesion. A village level social capital index was created by taking the average number of groups found in a village with the average number of characteristics of those groups (in terms of income and kin heterogeneity) (Narayan and Pritchett 1997).

Their findings indicated that the number of networks at the village level has a positive income effect on all of the households in the village. This income effect was much larger when compared to other known determinants of income such as years of schooling and physical assets. Households in villages with more social capital are more likely to have access to better public services, use advanced agricultural practices and join in communal activities. The study also claims that the effect of social capital primarily operates at the village level and not at the individual level (Narayan and Pritchett 1997).

The study has been criticized because it used a single index to measure social capital (Grootaert 1998). By using a single index it is not possible to determine whether social capital effects operate primarily through the density of existing institutions or through the characteristics of groups. Putman (1993) and others have argued that it is the density of the institutions that is most important. However, the characteristics of groups (i.e., the nature of participation and structure of the groups) may be just as important or more critical.

Indonesia (rural)

Building on the work in Tanzania, another World Bank quantitative study on social capital was carried out in the rural areas of Indonesia. This study tried to determine whether social capital operated at the household or village level, and whether the impact of social capital varied according to different types of institutions to which households belonged. Six aspects were measured to determine the quantity and quality of networks. These included: 1) density of membership (number of associations that the household is a member); 2) heterogeneity of group (neighborhood, kin group, occupation, economic status, religion, gender, age, and level of education); meeting

attendance (average number of times household attends group meetings in 3 months); active participation (degree to which the poor and less educated are participating in the groups); collection of membership dues (cash or labor); and community orientation (internally derived or externally imposed) (Grootaert 1998).

The study found that households with higher social capital have higher expenditures per capita, more assets, better access to credit, and are more likely to have increased their savings in a year. These households are also less likely to have their children not attend school. Thus the study found that social capital increases correlated positively with household welfare (Grootaert 1998).

The author of the study hypothesized that social capital positively affected the income of households through: 1) better job connections; 2) access to credit through networks; and 3) better access to inputs. The social capital features that appeared to be the most important to economic performance were: 1) the number of memberships in different groups; 2) the internal heterogeneity of associations; 3) the degree of active participation in decision making; and 4) the extent of the payment of dues (Grootaert 1998).

The quantity of networks people were involved in was important because it connected individuals to people that were not experiencing the same sorts of risk. In addition, the more associations the household participates in the more likely the household will participate in collective action (Grootaert 1998).

Participation in a network that is heterogeneous will connect people from different backgrounds with different risk exposures. Building trust among heterogeneous populations participating in networks may take longer than situations where people are more homogeneous, but the benefits are likely to be greater in managing risk (Grootaert 1998).

The most effective local associations in terms of returns to social capital were those where the members were active participants in the decision making processes. Whether the network was internally derived or externally derived was not as important as whether people actively participated (Grootaert 1998).

If membership in internally heterogeneous organizations provides the greatest benefits to individual households, the highest participation in collective action comes from members of internally more homogeneous organizations (like gender segregated groups). Thus there could be a trade-off between the interests of households and those of the community (Grootaert 1998).

The returns to social capital are not the same for each type of social network. Memberships in local associations make the most significant contribution to household welfare. Policy initiatives should aim to create enabling environments to allow for local associations to thrive (Grootaert 1998).

production such as land, labor and physical capital (Fafchamps 1992). For example, people will loan idle land to people who are land-less or land-poor because these same people will be short of food at some later date. In urban settings, risk-minimizing uses of social capital might include labor sharing for house repair, emergency food or financial assistance when household wage earners are ill, and temporarily sharing accommodation.

The second way that people use social capital is through the participation in networks that compensate members experiencing food or income shortfalls. For example, large

expenditures on medical and funeral costs are often unpredictable, and can cause significant income and consumption shocks having devastating consequences for the household if the social network does not provide some support. Such transfers usually occur among closely connected individuals, such as relatives, neighbors, and friends.

The degree to which shocks are insured by network members often depends upon their observability (Lund and Fafchamps 1997). Sickness and death of a family member are more observable than underemployment, and are more likely to bring about a response from network members. In rural areas, crop failures are easily observable. Income and food shortfalls are harder to gauge for households that are reliant on non-farm income. In such situations, consumption is a powerful yet delayed signal of income or food shortfalls (Fafchamps 1992).

Proactive uses of social capital revolve around acquiring services, managing common property resources and reducing transaction costs. Community-based social networks might lobby the government for the delivery of services such as water, health care or education. Social networks can help manage resources that belong to the community. Transaction costs can be reduced through social networks when information is shared (prices, input supply, commodity markets etc.), and contacts are used.

II Types of Social Capital and Trends

A. TYPES OF SOCIAL CAPITAL

There are a variety of forms that networks take, depending upon the socio-economic context of a community. The range of connections between people will vary, and may include social relationships, shared beliefs, group identification, and voluntary associations.

People often make a distinction between social capital of the individual and social capital of the collective. Social capital is an individual asset when the individual benefits from knowing others. This is often referred to as social network capital (Fafchamps and Minten 1998). Social capital is an asset of the collective when it contributes to group solidarity that facilitates the provision of public goods. The two forms of social capital are related.

Network crystallization is likely to take advantage of pre-existing relationships such as kinship, neighborhood or affiliation in an organization such as church or club. Community solidarity groups commonly found in isolated, pre-industrial societies have weakened and have been replaced by smaller more decentralized networks (Cross et al. 1998). Three general types of network groupings can be distinguished.

Bounded networks consist of people connected by kinship ties. People are born into bounded networks and rely on these to manage risk through reciprocal lending, provisioning certain collective goods, and sharing information. (Cross et al. 1998). These types of networks can often deliver long term support in the face of serious shocks due to kinship obligations. The very poor in a community rely on these networks whenever they can.

CASE STUDY

Tanzania (urban)

In a recent qualitative study carried out by CARE (1997) in Dar es Salaam, differences were found in the strength of social capital in different parts of the city. In peri-urban areas, both men and women's groups were present and actively pursuing a variety of development initiatives. In squatter settlements closer to the city center, the men's networks were weak or non-existent, while the women's groups still functioned effectively in sharing childcare duties and short-term credit. In the city center most social networks were weak or non-existent. This was primarily due to the transient nature of the city center where populations are very mobile, ethnic diversity is high, and trust is not in abundance.

It is in these inter-city neighborhoods that crime rates and violence are extremely high, and opportunities for participating in social capital building activities at night are limited due to the threats on safety. Such threats restrict mobility for social interaction, eroding space for community associations. Under such conditions, hierarchically structured negative social capital in the form of gangs and organized crime often comes in to dominate poor communities (Moser 1997). These organizations tend to use violence as a sanctioning tool. This form of social capital is often the only one available to urban youth.

The breakdown of social capital in urban areas like Dar es Salaam particularly affects women (Moser 1996). Social capital access is very critical to women because it allows them to balance multiple reproductive/domestic activities with economic pursuits. In addition to small loans, women help each other with childcare, cooking and share living space.

Childcare responsibilities and social restrictions make it difficult for women to seek employment long distances from their neighborhood. Women tend to be trapped inside the community local economy and rely on social capital to help deal with adversity. When shocks hit, women often bear most of the burden of the crisis, although they have less economic options to fall back on (Cross et al. 1998). Economic hardships may lead to increased domestic violence or the breakup of households. In such situations, women try to rely on their social capital networks to adjust to the changing circumstances. Women's social capital networks are mainly among women, and tend to be wider and perhaps deeper than those used by men (Cross et al. 1998). However, because women usually have less income to mobilize than men, support is usually in the form of labor or in-kind exchanges.

Achieved or choice-based networks are informal and formal networks based on choice and gained through experience or institutional membership. People may create friendships through school, work, service, political affiliation, church, or sports clubs. These choice-based horizontal networks are becoming more and more important through time, especially as people are becoming more mobile. These networks tend to be more decentralized than bounded networks, and tend to be more resilient and flexible in terms of membership than community-based solidarity groups (Fafchamps 1992). These networks often remain small, local, and fragile, and may easily break up over trust concerns. For this reason, choice-based networks provide support to members for short-term shocks through loans, and through provisions of advice, information and connections. Choice-based networks are much more difficult for the very poor to use because they have little to offer in exchange (Cross et al. 1998).

Patron-client networks are those groups where asymmetries in wealth and power exists, such that those with the greatest power and/or resources are expected to provide economic or physical security to those with less power and resources in exchange for loyalty, labor, rent etc. Patron-client relationships are vertical networks, and often arise when the need for insurance based on accumulated wealth is necessary to deal with collective risk (drought, floods, war) (Fafchamps 1992). The patrons in these networks are often traditional authorities that act as representatives of their people to the rest of the world. They are expected by the clients in their networks to insert themselves into regional or national networks on behalf of the rest of the group. Patrons may compete with other patrons for clients. Sometimes poorer households are adversely incorporated into such vertical networks because they have no choice.

Social networks can be formal or informal in nature. The networks can also be locally based or connected to individuals outside the community. Local networks often serve to help manage risk through reciprocal lending, oversee common property, and share information conducive to trade. Extra-local networks link individuals and communities to broader sets of information regarding market opportunities and sources of technology and inputs (Statz 1998).

Because all of these different types of networks can exist simultaneously in the same social setting, network membership for any given household can be complex. Poor people are often obliged to interact simultaneously in several layered and overlapping arenas of rules, cultural norms and opportunities. Tradeoffs are often experienced in exercising participation in the different networks, and households must take into consideration the different opportunity costs associated with participation in each network. The poor households will manage the contradictions, operating among the contesting social capitals (Wood 1998).

Thus there are different types, levels or dimensions of social capital, with different performance outcomes associated with each combination (Woolcock 1997). It is important to understand these various aspects in the design of any devel-

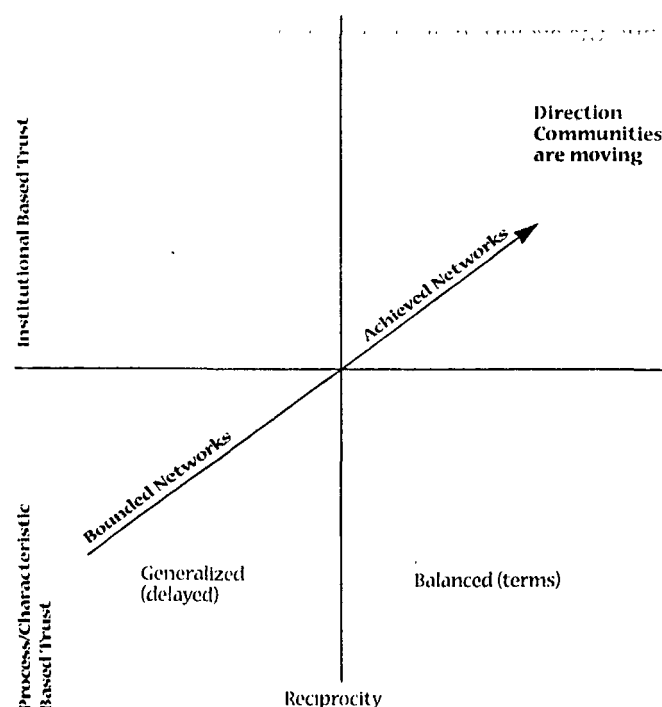
opment initiative aimed at reducing vulnerability and/or improving household livelihood security.

B. RECENT TRENDS

The types of social capital available to poor people are constantly evolving, primarily due to rapid economic, political, social, and environmental changes occurring within less developed countries and globally. Inequalities in the distribution of income, resources and opportunities have increased, and political changes in the 1980s and 1990s have resulted in instability and military insecurity, contributing to increased global poverty.

These change processes have led to increasing economic vulnerability of the poor, leading to high rates of mobility and unemployment. Under such rapid change conditions, community based groups that operated under principles of generalized reciprocity are evolving into a differentiated, decentralized webbing of individual networks based on balanced reciprocity (Cross et al. 1998). (See Figure 1) Choice-based networks are surpassing bounded networks in the volume of transactions, and the most vulnerable, marginal members are being dropped from the networks. Essentially, social capital as a community asset available to everyone is evolving to an individual asset based on the ability to meet reciprocal obligations.

Figure 1



Although marginalized households can still rely on bounded networks for support, even these ties are weakening (Cross et al. 1998). For example in South Africa, some members in bounded networks are finding that the social capital obligations towards the very poor may outweigh the returns on network membership. Relatives of the same generation are

often withdrawing long-term support to each other. It appears that lineal relatives (i.e., grandparents, parents and children) are the only ones still providing long-term support to the very poor (Cross et al. 1998).

The shrinking of networks and high rates of adult unemployment are making poor households highly vulnerable to economic shocks. The point in the household development cycle when the main lineal relative supporter dies often determines what happens to the family's chance for escaping poverty (Cross et al. 1998). The HIV-AIDS epidemic in Africa is making such networks extremely vulnerable. With limited social capital support, poor families find it difficult to keep their children in school when a shock hits. To do so, they often trade off the health of adults (especially women) against investing in the future by keeping children in school (Cross et al. 1998).

Households that are unable to cope with shocks due to the lack of social capital are often the ones that have to cope with the destructive or criminal behavior from household members in despair (Cross et al. 1998). Negative forms of social capital may arise in situations of severe poverty, such as criminal gangs, street children organized for stealing property, and other forms of organized crime. Although these crime networks have a long-term negative impact on the community, they have positive short-term returns for people that participate in the network. In many situations, this may be the only network avenue open to the poor youth in urban slums.

Thus, the evolution of social capital has led to a differentiation and decentralization of network options. Social networks have moved away from inclusive solidarity networks to those that separate the marginal poor from the adequately supported based on the ability to reciprocate. As the very poor slide deeper into destitution, the middle poor are still able to rely on social capital to manage risk and lower transaction costs. As the poor separate out along class lines, the very poor experience a greater sense of isolation and despair. At the same time that social capital for the very poor is eroding or being replaced by negative networks, government provision of resources for safety nets to fill this social capital gap is being reduced. Public and private safety nets have large holes in them through which the very poor drop out (Cross et al. 1998).

References

- Becker, G. S. 1993. *Human Capital*. Third edition. Chicago: University of Chicago Press.
- Bourdieu, P. 1993. *Sociology in Question*. London: Sage Publications.
- CARE 1997. Dar es Salaam Urban Livelihood Assessment Data Document Volume I. November.
- Coleman, J. S. 1988. Social Capital in the Creation of Human Capital. *American Journal of Sociology* 94 (Supplement): S95-S120.
- Cross, C.R., T.M. Mngadi, and W.T. Mbhele 1998. Poverty at Ground Zero: Social Capital and Economic Shocks in Rural KwaZulu Natal. IFPRI. May.
- Fafchamps, M. 1992. Solidarity Networks in Preindustrial Societies: Rational Peasants with a Moral Economy, in *Economic Development and Cultural Change*. Volume 41, No. 1. October.
- Fafchamps, M. and B. Mentin 1998. Returns to Social Capital Among Traders. MSSD Discussion Paper No. 23. IFPRI, Washington, DC. July.
- Fukuyama, F. 1995. *Trust: The Social Virtues and the Creation of Prosperity*. The Free Press.
- Grootaert, C. 1998. Social Capital, Household Welfare and Poverty in Indonesia. World Bank Local Level Institutions Study, Social Development Department. Washington, DC. Sept.
- Harriss, J. and P. de Renzio. 1997. An Introductory Bibliographic Essay. *Journal of International Development* 9 (7): 919-937.
- Knack, S. and Keefer, P. 1996. Does Social Capital Have an Economic Pay-Off: A Cross-Country Investigation. IRIS Working Paper No. 197. University of Maryland.
- Lund, S. and M. Fafchamps 1997. Risk-Sharing Networks in Rural Philippines. Department of Economics, Stanford University, Palo Alto, CA.
- Morris, M. 1998. Social Capital and Poverty in India. Working Paper 61. Brighton: Institute for Development Studies.
- Moser, C. 1997. Poverty Reduction in South Africa: The Importance of Household Relations and Social Capital as Assets of the Poor. World Bank. Washington, DC.
- Narayan, D. and L. Pritchett. 1997. Cents and Sociability: Household Income and Social Capital in Rural Tanzania. World Bank. Washington, DC. April.
- Putnam, R. 1993. The prosperous community: Social capital and public life. *The American Prospect* 13.
- Putnam, R., with R. Leonardi, and R. Nanetti. 1993. *Making Democracy Work: Civic Traditions in Modern Italy*. Princeton, NJ: Princeton University Press.
- Putterman, L. 1995. Social Capital and Development Capacity: The example of Rural Tanzania, in *Development Policy Review* 13. 5-22.
- Scoones, I. 1998. Sustainable Rural Livelihoods: A Framework for Analysis. Working Paper No. 72. Brighton: Institute of Development Studies.
- Staat, J. M. 1998. The Application of Social Capital in Understanding Economic Development. Staff Paper No. 98-17. Michigan State University, East Lansing, MI, August.
- Wood, G. 1998. Investing in Networks: Livelihoods and Social Capital in Dhaka Slums. January. Bath, UK: Centre for Development Studies, University of Bath. Mimeo.
- Woolcock, M. 1997. Social Capital and Economic Development: Towards a Theoretical Synthesis and Policy Framework. Providence, RI: Brown University.

FAM

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VOCA • American Red Cross • CARE • Catholic Relief
Services Feed the Children • Food for the Hungry Int'l •
Mercy Corps International • OIC International • Project
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World SHARE • World Vision International

What's New

by T.J. Ryan

Change in workshop dates!!

We would like to announce that the dates for the workshop entitled "Enhancing the Nutritional Quality of Relief Foods" have been changed to April 28-30 from March 3-5. These dates are firm and we will provide an updated agenda and hotel and venue information to interested participants in approximately three weeks along with specific contact information for questions and additional information.

Update on FAM activities

In late May, FAM will hold a workshop on "Sampling for Managers" to address a need expressed by members for some time and reiterated at the annual meeting. The workshop will last three days and include an overview as well as specific exercises for participants to allow for a basic understanding of the requirements for good sampling in surveys and evaluations. The workshop will be developed by the M&E working group and with assistance from the FANTA project staff and consultants.

FAM will assist in the organization of a workshop in Bolivia in either June or July on the "Use of Rations in MCH programs" involving Title II programs from Bolivia and Peru. FAM involvement is designed to provide an opportunity for membership to have access to the results and ongoing work that is expected to result from the workshop. We will keep members informed as workshop details are finalized.

As agreed at the annual meeting, local capacity building will be the theme for the 2 days reserved for workshops at the FAM annual meeting. More information on this will be forthcoming. We will be looking at October, 1999 for this meeting.

FAM will also be looking for a consultant to implement the second part of the agriculture baseline survey SOW.

This part of the SOW will focus on the bio-physical aspects to include direct and indirect methods of measuring precipitation, yield, plot size, duration of stored harvest, and key plant/soil variables. Suggestions for a consultant with bio-physical agriculture and baseline survey expertise are welcome.

The **PVO Monetization Manual** sponsored by FAM is proceeding towards completion. Eight chapters have been distributed and commented on to date with an additional 5 chapters currently under review for comment. A number of case studies have been sent and are nearly ready for inclusion. The manual is scheduled to be completed by March 31, 1999. All comments and suggestions should go to Bridget Ralyea at bridgetr@aol.com.

As announced at the FAM Annual Meeting, the **FAM website** has been expanded and improved. Since that meeting, several updates have been made to the site. The FAM working group pages can now be accessed from the table of contents on the site. In addition, selected full-text articles from the Food Forum have been uploaded. New documents have been added to the FSRC page as well. FAM will continue to regularly update the website to address the information needs of FAM members. Please contact Jessica Graef (jgraef@foodaid.org) if you would like to add information to the FAM site.

The **Environmental Documentation Manual (EDM)** has been completed and is available. The EDM is the reference document that can be used by P.L.480 Title II cooperating sponsors as a guide when completing environmental documentation required under USAID's environmental regulations and procedures (22 CFR part 216). The EDM is not official USAID guidance. The EDM will be distributed to appropriate staff in your organization, specifically those who are involved in preparing environmental documentation for FFP. FAM will soon have electronic copies available on diskette and the EDM will be posted on the FAM website. Any remaining copies of the EDM would also be available through the FSRC. ❖

Food Security Resource Center News

As part of its large nutrition and food aid collection, the FSRC houses several very useful publications on fortification of food aid commodities. I have generated a list with a sample of the types of fortification resources available in the FSRC. For more specific information or to request copies of the materials listed, please contact me at

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FSRC RESOURCES ON FORTIFICATION

Vitamin A fortification of PL480 vegetable oil. 1998. Bagriansky, Jack; Ranum, Peter. *SUSTAIN Micronutrient Assessment Program*. 54p. #7348.

Examines vitamin A fortification of PL 480 vegetable oil. Report "suggests that distribution of fortified PL 480 vegetable oil could significantly reduce the rate of childhood blindness as well as the morbidity of mortality rates stemming from common childhood infections." Provides technical analysis of fortification studies and offers recommendations. Discusses safety and technology issues.

Effects of iron fortification in a school feeding scheme and anthelmintic therapy on the iron status and growth of six-to eight-year-old schoolchildren. March 1996. Kruger, Marita et al. *Food and Nutrition Bulletin*. Vol. 17, No. 1. Study of the effect of iron fortification of soup (iron and vitamin C) in a

school feeding scheme and anthelmintic therapy on haematological and iron status and on growth in schoolchildren aged six to eight years in South Africa.

Report of a technical review of vitamin C and iron levels in P.L. 480 Title II commodities. 1990. USAID. 20p. FSRC #401. Report from panel formed to investigate the increased fortification of Title II commodities. Recommended actions include the following: increased iron fortification; maintenance of the current level of vitamin C; investigation of alternate delivery systems due to stability problems.

Use of food aid in locally processed infant foods: Sustainable approach to reduce hunger. 1994. Huffman, Sandra; Nuture/Center to Prevent Childhood Malnutrition. 8p. FSRC #1039.

Testimony that urges that processed fortified instant cereals be made available through the US food aid program.

Micronutrient fortification and enrichment of P.L. 480 Title II commodities: Recommendations for improvement. 1994. OMNI; USAID; JSI; Horton, Susan; Buescher, Ron. 70p. FSRC #1259.

Examines the options for micronutrient fortification of food aid commodities. Provides technical information about enrichment and fortification practices, quality assurance of the fortified commodities, product, and fortificant stability, and appropriate and safe levels of fortification. Offers recommendations.

SUSTAIN results report on the vitamin C pilot program. 1997. SUSTAIN; Ranum, Peter; Chome, Françoise. 154p. FSRC #6883. Contains the results of pilot program to determine appropriate vitamin C fortification levels in U.S. food aid commodities. Focuses on corn soy blend (CSB) and wheat soy blend (WSB) provided to Tanzania and Haiti, which were fortified with higher levels of vitamin C.

Acceptability and use of cereal-based foods in refugee camps: Case-studies from Nepal, Ethiopia, and Tanzania. 1998. Mears, Catherine; Young, Helen. OXFAM. 132p. FSRC #7139.

Nutritional study of the use and acceptability of cereal-based foods in refugee camps, as well as opportunities for fortification of cereals with micronutrients at the household level. Case studies conducted in refugee camps in Nepal, Ethiopia, and Tanzania.

Vitamin C fortification of food aid commodities. 1997. Institute of Medicine; Committee on International Nutrition; Food and Nutrition Board. 87p. FSRC #7165.

Discusses the cost-effectiveness of scaling up vitamin C fortification in Title II commodities, mainly CSB and WSB. Makes recommendations, discusses alternative mechanisms for providing vitamin C to refugees, and identifies areas in which additional research is needed.

Fortification of wheat flour with vitamin A: Update. 1998. USAID; UNICEF; OMNI Project/John Snow Inc. 16p. FSRC #7221. Focusing on fortification of wheat flour with vitamin A, discusses the technology and issues related to stability of vitamin A, sensory characteristics, quality assurance and control, and cost of wheat flour fortified with vitamin A and other micronutrients.

Manual for sugar fortification with vitamin A:

Part I - Guidelines for the development, implementation, monitoring and evaluation of vitamin A sugar fortification program. 1996. Arroyave, Guillermo; Dary, Omar. 57p. FSRC #7222.

Part II - Technical and operational guidelines for preparing vitamin A premix and fortified sugar. 1996. Dary, Omar; Arroyave, Guillermo. 41p. FSRC #7223.

Part III - Analytical methods for the control and evaluation of sugar fortification of vitamin A. 1996. Dary, Omar et al. 81p. FSRC #7224.

Part I describes the importance of preventing and reducing vitamin A deficiency and how to go about establishing such a program. Part II covers general aspects of the fortification process; manufacture of the premix and procedures for adding the premix to sugar; quality control. Part III presents field and laboratory methods to estimate the content of vitamin A in the premix and in fortified sugar.

Early response to the effect of iron fortification in the Venezuelan population. December 1996. Layrisse, Miguel et al. *The American Journal of Clinical Nutrition* (vol. 64, no. 6). 903-7.

Results of preliminary survey carried out in Caracas in 1994 of a sample of children aged 7, 11, and 15 years. Shows that prevalence of iron deficiency and the prevalence of anemia were reduced as a result of an iron fortification program under which precooked yellow and white maize and wheat flours were enriched.

Interagency meeting: Iron fortification in the Americas. March 1998. Pan American Health Organization (PAHO). 9p.

Reports on March 1998 workshop that focused on iron fortification programs. Provides background information on iron deficiency and its prevention and control. Includes discussion of quality assurance and epidemiological surveillance. Examines premix and compound strategies. Includes consensus points, research priorities, and discussion items.

Food fortification: Technology and quality control. 1995. Istituto Nazionale della Nutrizione. FAO Technical Consultation. 34p. Includes summary of conclusions and recommendations as well as background information on food fortification. Contains sections on iodine, iron, and vitamin fortification technologies; legislation information; monitoring procedures; and fortification in food aid programs. Available at www.fao.org/WAICENT/FAOINFO/ECONOMIC/ESN/fortify/fortify.htm.

Preventing micronutrient malnutrition: A guide to food-based approaches. Manual for policy makers and programme planners. 1997. FAO, International Life Sciences Institute. 105p. FSRC #7549.

Discusses food-based approaches to combating micronutrient malnutrition and provides guidelines for policy makers in the implementation of these strategies. Includes sections on increasing small-scale (e.g., gardening programs) as well as commercial production of micronutrient-rich foods, maintaining micronutrient levels in common foods (improved storage, food safety, and preparation), plant selection and breeding, food fortification, and communication strategies.