

LINKING FARMERS TO MARKETS: ASSESSING PLANNED CHANGE INITIATIVES TO  
IMPROVE THE MARKETING PERFORMANCE OF SMALLHOLDER FARMER GROUPS  
IN NORTHERN TANZANIA

By

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To my *jami*: the Barhams, Kellys, and Byrons

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Abstract of Dissertation Presented to the Graduate School  
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By

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The primary inquiry of my study was to identify and understand the underlying factors that enable smallholder farmer groups to improve their market situation. My study evaluated a government-led program in Tanzania that is attempting to increase smallholder farmers' incomes and food security through a market-oriented intervention. Over the course of 15 months, research was conducted in collaboration with two local non-governmental organizations that are implementing partners in this development program. Two rounds of group interviews (6 to 8 months apart) were conducted with 34 farmer groups. Individual data were collected on approximately 400 farmer group members. My analysis considered how group assets and characteristics, as well as the larger infrastructural conditions, affect a farmer group's ability to improve its market situation. Findings suggest that more mature groups with strong internal institutions, functioning group activities, and a good asset base of natural capital are more likely to improve their market situation. Structural social capital in the form of community leaders and ties to external service providers are enabling factors that can enhance a group's ability to access new resources. Likewise, cognitive social capital in the form of group altruism is an enabling factor that can enhance a group's ability to maximize existing resources. Gender composition of

groups also factors in group marketing performance. It acts as an enabling factor for male-dominated and gender-balanced groups and acts as a disabling factor for female-only groups. Cognitive social capital in the form of group trust and homogeneity of identities (i.e., ethnicity, age, education, religion) are not significant factors in a group's ability to improve its market situation.

## CHAPTER 1 INTRODUCTION

In recent years, the importance of smallholder agriculture has been greatly recognized, demonstrated by both the donor community and governments' pledge to engage in the requisite interventions to generate agricultural and economic growth. In post-structural adjustment Africa, this growing recognition has led to two major crosscurrents of theory and practice that now define the major policy directives concerned with boosting Africa's faltering agricultural economies. First, agricultural development will not occur without engaging smallholder farmers. Accounting for the overwhelming majority of actors in this sector, smallholder farmers must be made central to any strategy to revitalize not only the agricultural sector, but also the economy as a whole (Diao & Hazell, 2004; Resnick, 2004; IFAD, 2003; Magingxa & Kamara, 2003; USAID, 2002; IFPRI, 2002; Wheatley, 2001; Wiggins, 2000). The second current, which intersects with the first, is that the major obstacle facing smallholder-led agricultural growth is lack of market access. Thus, the major proponents of market-led growth contend that enhancing market access for smallholders will lead to increased incomes and food security, more opportunities for rural employment, and sustained agricultural growth (Dorward et al., 2003; Stiglitz, 2002; Poulton et al., 1998; Bates, 1997). But, there are a number of researchers who adamantly oppose this market-led growth model for smallholder farmers. They argue such a model may lead to the opposite effect, with increased food *insecurity* due to market dependence and volatile prices, as well as bring about other negative impacts, such as concentration of landholdings; increased environmental degradation from intensive farming practices; and reduced biodiversity (Altieri, 1995; Wheatley, 2001; Omamo & Farrington, 2004).

Nonetheless, market access proponents make a strong and attractive case that for small farmers to thrive in the global economy, it is necessary to create an entrepreneurial culture in

rural communities where “farmers produce for markets rather than trying to market what they produce” (Lundy et al., 2002, p. 19). From an implementation perspective, this means shifting the focus from production-related programs to more market-oriented interventions. This has placed renewed attention on institutions of collective action – most often realized through the structure of farmer groups – as an important and efficient mechanism for enhancing the marketing performance of smallholder farmers (Kariuki & Place, 2005).

This study takes place within the context of these two crosscurrents of theory and practice. The primary objective is to identify and understand the underlying factors that enable smallholder farmer groups to improve their market situation. This topic is approached through an evaluation of a government-led program in Tanzania – the Agricultural Marketing Systems Development Program (AMSDP) – that attempts to increase smallholder farmers’ incomes and food security through improvements in market access. Within AMSDP, improving market access includes the following components: (1) reforming the regulatory and taxation system; (2) improving market infrastructure (e.g., building more roads, post-harvest facilities, market centers); (3) establishing agricultural marketing information systems; and (4) strengthening farmer groups and creating market linkages.

This study focuses on this last component of strengthening farmer groups and creating market linkages. This particular component was to be accomplished through a joint partnership between the district governments and local non-governmental organizations (NGOs). The main tasks of the NGOs – here termed partner agencies (PAs) as they are referred to in the program – are to train existing or newly formed farmer groups in capacity building and marketing skills measures and where possible, to establish market linkages. Through the lens of a livelihoods approach that will be defined below, this program component attempts to improve the marketing

performance of smallholder farmers by enhancing their stock of human and social capital. The aim of providing skills training in marketing and entrepreneurship increases human capital, whereas linking these groups to others in the market chain forges new business partnerships thereby enhancing their social capital.

### **Research Objectives**

To identify and understand the underlying factors that enable smallholder farmer groups to improve their market situation, the study has the following five research objectives:

- **Farmer group assets:** To assess the extent that certain livelihood asset configurations (i.e., natural, physical, financial, human, and social) will affect the group's ability to improve their market situation.
- **Farmer group composition:** To assess the extent that certain group composition attributes will affect their ability to improve their market situation
- **Farmer group characteristics:** To assess the extent that certain group characteristics, which include the group's institutional capacity, will affect their ability to improve their market situation.
- **Market access:** To assess the extent that physical market barriers will affect the group's ability to improve their market situation.
- **Partner agency:** To assess the extent that partner agency interventions in the form of group-capacity trainings and market linkages will affect the group's ability to improve their market situation.

### **Structure of the Dissertation**

This dissertation is organized into seven chapters including this introduction. Chapter 1 reviews the literature in relation to the research objectives reviews. The research objectives were informed by an array of development theory and practice that ranges from the work of anthropologists and political scientists to the work of ecologists and economists. Chapter 2 provides background to the Agricultural Marketing Systems Development Program (AMSDP) and describes the study area. Chapter 3 presents the research methods employed in this study. While the first three chapters set the foundation for the research design and data collection,

chapters 4 and 5 present the results of the quantitative and qualitative data analysis. The results of the quantitative data analysis (i.e., bivariate and multiple linear regressions) are provided in Chapter 4. Chapter 5 considers findings from descriptive statistics and qualitative data analysis techniques (i.e., cross-tabulations, categorizations, classifications) to explore the relationship between the explanatory variables and the different types of marketing strategies employed by farmer groups to improve their market situation. The purpose of Chapter 6 is to summarize the findings by linking the results to the study hypotheses and to provide conclusions that relate to the theories guiding this study. The final chapter presents conclusions, as well as research and programmatic recommendations specifically tailored to non-governmental organizations (NGOs) engaged in agro-enterprise development initiatives.

### **Literature Review**

There are two principal sections that follow. The first section discusses the economic policies and perspectives concerning sub-Saharan Africa. Although no hypotheses are derived from this section, it remains important because it contextualizes this study within the broader debate of the role of agricultural development in the post-structural adjustment period in Africa. The second section provides the overarching theories that have guided my research questions, providing a critical lens within which to analyze a planned change process, and allowed for the formulation of testable hypotheses. The section includes discussions on the following schools of thought: New Institutional Economics; Feminist Economics; Social Capital; Collective Action; and Cultural Materialism.

#### **Economic Policy and Perspectives in Sub-Saharan Africa**

This section provides an overview of the dominant economic policy and perspectives in the field of agricultural development in sub-Saharan Africa. It provides the necessary macro-lens within which to view my study, which though focused on more micro-level analysis, must be

cognizant of the larger policy implications. This section discusses the following: the rationale for and implementation of the structural adjustment programs, with particular reference to agricultural reforms and market liberalization enacted under these policies; the impact of these policies on agriculture; the post-structural adjustment period and emergence of a new policy agenda; the role of smallholder farmers in this agenda; and the promotion market access and its possible impacts on the livelihoods of smallholder farmers.

**Structural adjustment programs in Africa.** The World Bank and International Monetary Fund (IMF) implemented structural adjustment programs (SAPs) as an attempt to stave off the economic crises unfolding in sub-Saharan Africa in the late 1970s. There were both internal and external reasons for the economic crises. Externally, most of the world, and particularly oil dependent developing countries, were negatively impacted by the sudden increase in oil prices in 1973 and 1979. Internally, many of sub-Saharan African<sup>1</sup> governments, following their independence from colonial regimes, pursued a dualistic or bimodal strategy that induced a capital-intensive path of development (Tomich et al., 1995). Many of these state-led interventions were geared toward an urban bias of industrial expansion and appeasing powerful constituents. These actions heavily distorted the prices not only of food, but also foreign exchange, capital, wage earnings of the civil sector, among others – none of which in the long term were economically and politically sustainable (Bates, 1981). These ill-conceived development strategies led to mismanaged fiscal and monetary policies that effectively distorted the prices of the relative scarcity and abundance of resources to be found within many of the African countries (Timmer et al., 1983).

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<sup>1</sup>From this point on, sub-Sahara Africa will be referred to as Africa. Thus, this designation does not refer to the countries of North Africa, which generally had different trajectory in regard to economic development since the 1970s.

With their economies stagnating, many African countries were incapable of servicing their debt to both Western governments and banks. SAPs were the IMF/World Bank's corrective answer to the growing economic crises. The measures enacted under SAPs included:

[The] devaluation of overvalued currencies, increases in artificially low food prices and interest rates; a closer alignment of domestic prices with world prices, an emphasis on tradable/exportable and the gradual withdrawal of restrictions on competition from abroad (trade liberalization), privatization policies (of "parastatals" or large-scale government monopolies), a decrease in government spending, wage and hiring freezes, reductions in employment in the public sector or the minimum wage, the removal of food and input subsidies, and across-the-board reductions in budget deficits as ways to invigorate stagnating economies (Gladwin, 1991, pp. 3-4).

Taken as a whole, SAPs were implemented to "get the prices right" and thus end what in many economists' eyes were the apparent "market pathologies" that existed in most developing countries due to heavy handed state-led interventions.

Agricultural market reforms were at the forefront of structural adjustment programs. The so-called Berg report (World Bank, 1981) catalyzed support for drastic agricultural reforms in many of Africa's worst-off countries. Kherallah et al. (2000, p. 6) point to three major types of agricultural reform measures:

- Liberalizing input and output prices by reducing or eliminating subsidies on agricultural inputs such as fertilizers and credit, realigning domestic crop prices with world prices, eliminating pan-seasonal and pan-territorial pricing, and reducing overvalued exchange rates.
- Removing regulatory controls in input and output markets (for example, allowing the participation of the private sector in agricultural marketing), lifting restrictions on internal movement of food crops, and relaxing quantitative controls such as delivery quotas and licensing arrangements
- Restructuring public enterprises and withdrawing marketing boards from pricing and marketing activities and narrowing their role to more supportive activities (such as providing market information services and maintaining security stocks).

With such disincentives removed from the market system, proponents of market liberalization expected such reforms to stimulate farmers to produce more, leading to higher agricultural growth, and greater economic development overall.

**Impacts of the structural adjustment period in Africa.** With the hindsight of over twenty-five years of SAP implementation, it is generally agreed upon that these policies had negative, and in some cases, disastrous impacts on a greater number of African countries, particularly the deleterious effects of these policies on the poor and women (Elson, 1989; Gladwin, 1991; Sparr, 1994; Spring, 1995). The ineffectiveness of these economic policies compounded by other known factors, such as low land productivity, inadequate infrastructure, vulnerability to natural disasters, high levels of political instability, and a high prevalence of HIV and AIDS, has put much of Africa into a dismal economic and political state (Resnick, 2004, p. 8).

The current economic plight of many African countries is well known. Africa not only has the highest proportion of its population living under the international poverty line (below \$1 dollar a day), but it also has seen this proportion increase from 47.4 percent in 1990 to 49 percent in 2000. Likewise, with over one third of its population malnourished, Africa has the highest percentage in the world (Resnick, 2004, p. 7).

African countries are still heavily dependent on traditional export crops (e.g., coffee, cocoa, cotton, sugar, tea, and tobacco) and a major part of SAP agricultural reform was intended to boost productivity in this area. Unfortunately, the region's share of total world agricultural exports has fallen from about six percent in the 1970s to three percent by 2003 (Diao & Hazell, 2004, p. 2). This is compounded by the fact that agriculture grew more slowly than overall population growth from 1965 to 1998, and more slowly than growth in the agricultural labor

force from 1980 to 1998 (Dorward et al., 2003, p. 74). With the dismal market for many of Africa's traditional export crops, many smallholder farmers are currently resorting back to food staples to meet subsistence needs. With further withdraw of the state from remote rural areas, there is a veritable "scramble" by Africa peasants to find viable livelihood alternatives outside of agriculture (Bryceson, 2002). Food insecurity also remains a major problem, with shipments of over 3 million metric tons of cereal food aid required in 2002 alone (Resnick, 2004, p. 8).

The economic situation is further compounded by the high prevalence of HIV and AIDS that from an economic perspective, "decreases labor productivity, erodes livelihood assets, and blocks the transfer of knowledge from one generation to the next" (Diao & Hazell, 2004, p. 3). Based on a report by FAO, the AIDS pandemic reduces national economic growth rates across Africa by about 2 to 4 percent per year (Diao & Hazell 2004, p. 3).

**Post-structural adjustment Africa and the new policy agenda.** While certain circles still debate the degree that SAPs should take the blame for Africa's economic plight, there are signs of a partial convergence between supporters and critics concerning the post-adjustment agenda. This convergence comes from a certain resignation by SAP critics that market liberalization is irreversible if not a necessary prescription to economic development. Thus, while the post-adjustment agenda takes liberalization as a given, it also accepts that improvements in rural livelihoods require a wider series of interventions. Divergence still exists, however, regarding the role the state should play in promoting economic development (Ponte, 2002, p. 3). Poulton et al. (1998, pp. 4-5) suggest that three main positions have emerged:

- The "conventional wisdom" position that argues SAPs were correctly designed but were poorly implemented by African governments. This position views that further market liberalization policies are necessary and the state should limit its market function to enforcing contracts and property rights. The state may also provide some service provisions, such as health, primary education, and possibly agricultural research.

Supporters of this position include Jayne et al. (2002); Kherallah et al. (2000); and Timmer et al. (1983).

- The “emerging orthodoxy” position shares much in common with the conventional wisdom perspective but relaxes some of the more rigid positions of the neoclassical economic perspective. This position sees the state as playing an “activist” role in promoting market development. This is done primarily through building the necessary institutional and governance structures that enhance market efficiency. This position is shared by a growing number of economists and political scientists who ascribe to the “institutionalists” school of development economics. Supporters of this position are many, including Dorward et al. (2003); Stiglitz (2002); Friis-Hansen (2000); Poulton et al. (1998); Bates (1997); and North (1990).
- The “critical” position argues that the withdrawal of the state in places where the private sector involvement is structurally limited has been too quick, and that the options of designing alternative forms of public interventions and reforming existing ones deserve more careful attention. Further to the left of this position is the argument that the real problems do not lie with inappropriate policies but more with exogenous factors (e.g., unequal trade relationships) that hinder meaningful agricultural development. Supporters of this position include Omamo (2003) and Ponte (2002).

**Economy of affection.** One of the “critical” positions not reflected in the above typology is the notion of the “economy of affection” as used by political economists and other scholars.

The concept was first developed by Goran Hyden in his seminal work, *Beyond Ujamaa in Tanzania: Underdevelopment and an uncaptured peasantry* (1980). In this book and subsequent writings, Hyden argues that economic underdevelopment in Africa is not a matter of too much or too little state or market intervention. Having witnessed the ultimately disastrous consequences of a state-led economy in Tanzania in the 1970s, as well as the equally ineffective market liberalization policies that later followed, Hyden argues that a “third” economy exists in much of Africa that functions outside the realm of both state and market control. Firmly established in a peasant mode of production, the economy of affection “denotes a network of support, communications and interaction among structurally defined groups connected by blood, kin, community, or other affinities, for example religion. It links together in a systematic fashion a variety of discrete economic and social units which in other regards may be autonomous”

(Hyden 1983, 8). The economy of affection is based on social and economic exchanges between affective kin ties that function autonomous of the state and the market, and thus, leave the

African peasantry “uncaptured” by the capitalist system. As Hyden (1980, p. 25) states:

The peasants are the owners of the means of production (or at least they control their use more effectively than the officials) and thus they can always seek security in withdrawal. As long as labor rather than land is the real scarce resource, officials will have difficulty in exercising power over the peasants. The peasants, rather than officials, act from a position of strength.

While economy of affection may place peasants in a position of strength and autonomy vis-à-vis the state, it also fosters a subsistence-mode of production that perpetuates underdevelopment.

The reciprocal exchange relations based on the notions of the economy of affection create leveling mechanisms that lessen social differentiation and economic stratification by

discouraging capital accumulation and individual advancement. In one of his more recent

writings, Hyden (2003) references a study examining entrepreneurship in Tanzania (Trulsson, 1997) to make this case. As he points out:

[The study] showed that successful businesspersons tended to diversify their activities without much sense of strategy and certainly without the ability to establish ‘dynasties’ that can reproduce themselves by virtue of careful management of assets. One reason for this preference of diversification was the need to respond to claims for sharing the riches by members of the extended family or even lineage. Money went for ‘leveling’ rather than ‘growth’, an approach that helped keep the economy of affection alive, but did not contribute to the formalization of capitalist relations (Hyden, 2003, p.14).

Although Hyden’s analysis does not fit neatly within the “critical” position as posited by Poulton et al. (1998), it does function as a critique of those proponents of the “emerging orthodoxy” by

arguing that efforts to establish institutional and governance structures to enhance market

efficiency will prove largely ineffectual since the economy of affection still dominates much of

the social and economic life of the African peasantry. Much of theory behind the “emerging

orthodoxy” position is embodied in the work of new institutional economists. Given the

influence of this school of economic thought on policy makers promoting economic development

in Africa, the next section deals with some of the underlying principles behind new institutional economics and the policy implications.

**New institutional economics and the emerging orthodoxy.** The new institutional economic (NIE) position on market liberalization and privatization falls somewhere between the argument for SAPs not being pushed far enough and the position that SAPs were pushed too far, too fast (Friis-Hansen, 2000).<sup>2</sup> Proponents of the NIE agree that liberalization and privatization of the agricultural sector was, and is, the right path to development, but adamantly disagree with neo-classical “conventionals” that simply removing state-caused market distortions will provide the private sector with sufficient incentive to take over the functions left behind by the state. Particularly within the agriculture sector, disappointing production responses to state withdrawal left many conventionals scrambling to explain this condition. The answer has already been provided: the reforms did go far enough and the state’s role in economic development needs to be even further removed. NIE, however, provides a different viewpoint on this, as detailed by Poulton et al. (1998, p. 2):

An alternative explanation for the apparently disappointing response to market liberalization was that enthusiasts such as Berg had held an unduly optimistic view of the potential of the African private sector to provide the services previously provided by state organs. The observed vitality of small-scale informal sector activity was insufficient evidence to prove the existence of private entrepreneurs who could assume roles of national economic importance, for example the marketing of staple foods to feed rising urban populations. Private traders, often discriminated against and harassed for decades, did not possess the managerial skills, business experience or capital to move straight into large-scale activity.

Furthermore, in many rural areas, with geographically dispersed farms, poor roads, and weak communication channels, there is simply insufficient business volume to attract private sector involvement. Also, a number of services provided by the state have “clear public good

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<sup>2</sup> A more detailed theoretical discussion on NIE will be presented later in this chapter, with the present discussion focusing on the NIE policy agenda in the post-structural adjustment period.

properties, which will tend to discourage private sector involvement. There are, in other words, high probabilities of market failure in key liberalized markets” (Dorward et al., 1998, p. 3).

What becomes clear through the lens of a NIE analysis is that market failure in Africa is more the norm than the exception. Much of the policy advice for African agricultural economies is based on unrealistic analysis and assumptions that offer few real solutions to the problems at hand (Omamo & Farrington, 2004). For NIE advocates, the way through this impasse is to stop focusing so narrowly on how to “get the prices right” and start considering how to “get the institutions right.” As Dorward et al. (2003, p. 79) explain:

The essence of the “new institutional” argument is the very low level of development in the institutional environment of poor rural areas, together with a low density of transactions, leads to a very high transaction risk and costs in financial, input, and output markets. This is particularly the case with financial markets and to a lesser extent with input markets. High transaction costs and risks, exacerbated by low population densities and poor communications, lead to coordination and hence market failures, and as these market failures depress the level of economic activity, raising per unit transaction costs (with thin markets) risks of transaction failure, a vicious cycle of underdevelopment results.

Institutional development, thus, becomes the key ingredient for agricultural development. Many NIE proponents even argue that direct state interventions at the micro-level may be necessary to support, and even create, functioning institutions to lower transaction costs and reduce risk and uncertainty for poor smallholder farmers. The NIE position will be discussed in greater detail in the theory section. Attention at this point turns to the role of smallholder farmers in agricultural development.

**Importance of smallholder agriculture.** Concomitant with the rise of NIE as the emerging orthodoxy, renewed interest has emerged on the role that smallholder agriculture can play in revitalizing stagnating agricultural economies. This interest comes on the heels of the United Nations Millennium Summit and the adoption of the Millennium Development Goals (MDG). A great deal of attention is being paid toward the MDG goal that hopes to cut hunger in

Africa in half by 2015. Smallholder farmers have become a focal center of how this goal is to be accomplished. Indeed, if there is one coherent theme that has emerged in the past five years in agricultural policy, it is this: “Smallholders Can Do It!” The leading development documents and strategy papers take on such titles extolling the virtues of smallholder farmers, such as “Ending Hunger in Africa: Only the Small Farmer Can Do It” (IFPRI, 2002); “Small Farmers are A Big Deal” (Narayan & Gulati, 2002); “Cutting Hunger in Africa Through Smallholder-led Agricultural Growth” (USAID, 2002).

Beyond the enthusiastic rhetoric, there is a great deal of logic to this present focus on the role of smallholder agriculture. Agriculture is the primary source of livelihood for approximately 65 percent of Africans. It represents 30 to 40 percent of African GDP and accounts for almost 60 percent of Africa’s export income. Small-scale farms account for 90 percent of Africa’s agricultural production and are dominated by the poor. Smallholder farming households also contain 75 percent of Africa’s underweight children (Resnick, 2004, p. 8). Not only does it make sense in terms of concentrating finite resources, but smallholder farmers also offer a number of comparative advantages over large-scale and industrial farming. More often the case than not, this includes higher productivity per acre of land (Tomich et al., 1995); lower input costs through family and other labor-sharing arrangements, and utilizing local knowledge and indigenous farming techniques (Poulton et al., 2005).

**Promoting market access.** The leading research institutes and development agencies now advocate that the key to revitalizing the agricultural sector must include promoting market access for smallholder farmers. In fact, there has been a proliferation of documents since the UN Millennium Summit on improving market access for smallholder farmers (e.g., Wiggins, 2000; Wheatley, 2001; USAID, 2002; IFPRI, 2002; Lundy et al., 2002; Magingxa & Kamara, 2003;

IFAD, 2003; Omamo, 2003; Diao & Hazell, 2004; Resnick, 2004). The bottom line is that a lack of marketing opportunities acts as a powerful disincentive for farmers. In order for smallholder farmers to thrive in the global economy, it will be necessary to create an entrepreneurial culture in rural communities, where “farmers produce for markets rather than trying to market what they produce” (Lundy et al., 2002). This has shifted emphasis away from production-oriented programs to more marketing-related activities. As two leading policy advisors readily admitted:

Marketing is an aspect of project work that is frequently neglected and that deserves more attention when designing projects ...improving marketing systems can be as important as introducing farming methods that increase yields; indeed the latter may otherwise be ineffective (Baum & Tolbert, 1985, p. 94).

With the MDG in mind, market enthusiasts insist that promoting market access for smallholder farmers holds the potential to increase incomes, reduce food insecurity, create new rural employment, lower malnutrition, and, most importantly, set the foundation for real positive growths in agriculture and the overall economy. There is also further emphasis given to ensuring the poor have a stake in the process. As one IFAD (2003, p. 5) document emphatically states:

Improved market access is not an issue of consequence only to better-off producers, and it is not relevant only to cash crop, rather than food crop, production. It is of importance to all rural households, and assisting rural poor people in improving their access to markets must be critical element of any strategy to enable them to enhance their food security and increase their income.

**Defining markets and market access.** The MIT Dictionary of Modern Economics (1999, p. 266) defines markets as “generally, any context in which the sale and purchase of goods and services takes place.” Although straightforward, the use of “sale” lends a certain monetary slant to markets that dismisses the inclusion of markets where money is not the medium of exchange. A more appropriate usage comes from Plattner (1989, p. 171), an economic anthropologist, who defines markets more inclusively as “the social institution to exchanges where prices or

exchange equivalencies exist.” He also defines the “marketplace” as the interactions in a customary place and time, and “marketing” to denote the buying and selling in a market.

Beyond a definition of markets, there are also different types of markets. Bates (1983, p. 3) helps to delineate these markets and where farmers find themselves positioned:

Farmers are seen as standing at the intersection of three major markets. Their real incomes depend upon their performance in these markets. They derive their revenues from the sales they make in the first of these markets – the market for agricultural commodities. Their profits are a function of these revenues, but also the costs they incur in a second market – the market for factors of production. And the real value of their profits, and thus the real value of their incomes, is determined by the prices they must pay in a third major market: the market for consumer goods, particularly commodities manufactured in the city.

Dorward et al. (2003) also delineate between three markets, these being the input market (for labor, land, agricultural inputs), the financial market (for cash and credit), and the output market (for selling agricultural products).

As for market access, the concept is largely defined, or at least explained, but what impedes access to markets. IFAD (2003, pp. 9-11) considers this along three dimensions: physical barriers; market structures; and information, skills, organization. The definitions include the following:

- **Physical barriers:** The distance to markets, including the lack of roads or impassable roads during certain seasons, is a fundamental constraint for many rural communities. It undermines farmers’ ability to buy their inputs and sell their crops. It results in high transportation and transaction costs, both to buyers and sellers, and it leads to uncompetitive, monopsonistic markets.
- **Market structures:** Along with physical barriers, many rural markets are typified by large asymmetrical relations where there are a large number of small producers/consumers on one hand, and a few market intermediaries on the other hand. Such market relations tend to be uncompetitive, unpredictable and highly inequitable. Such power differentials make it difficult for poor farmers to get fair prices on what they produce, as well as have effective demand for inputs and requisite consumption goods.
- **Information, skills, organization:** As participants in markets, poor farmers are at a distinct disadvantage. Poor farmers lack access to market and marketing information, research, education and skill training. Furthermore, many lack the collective organization that can give them the power they require to interact on equal terms with other, generally

larger and stronger, market intermediaries. As IFAD (2003, p. 11) emphasizes, “with little experience, no information, and no organization, they have no basis upon which either to plan a market-oriented production system or to negotiate market prices and conditions. Ultimately, their lack of knowledge means that they are passive, rather than active, players in the market; that they can be exploited by those with whom they have market relations; and that they fail to realize the full value of production.”

Given the physical and social barriers to market access faced by smallholder farmers, development planners have the tendency to be overly optimistic of the potential benefits if access to markets can be improved. However, unlike many market enthusiasts, Wheatley (2001, p. 4) provides a more balanced perspective on the positive and the negative aspects of greater market access and integration.

Table 1-1. Impacts on food security, poverty alleviation, and sustainable development.

	Positive impacts	Negative impacts
Food security	Market for surplus production of traditional staples	Switch from food crops increases insecurity
	Improved storage of fresh produce, reduced wastes and losses	Volatile prices
	Increased food entitlements	Health problems with overeating imbalances
	Reduced cost of imported basic foodstuffs	
	Improved health and nutrition	
Poverty alleviation	Increased income from higher value crops and added value post-harvest activities	Concentration of land holdings and productive resources
	Employment generation in larger rural enterprises	
Sustainable development	Market-based incentives for sustainable use of natural resources.	Reduced crop biodiversity
	Market-based incentives for clean production technologies, and recycling of wastes/by-products	More intensive production systems, more use of external inputs
	Market based incentives for applying food quality and safety standards	Increased pollution from post harvest processes

In Table 1-1, he classifies the possible impacts along the lines of food security, poverty alleviation, and sustainable development. Wheatley's overview of negative and positive impacts is a reminder that promoting market access for smallholder farmers may bring positive short-term advantages, but could lead to long-term negative consequences (environmental pollution and loss of biodiversity being major concerns). Thus, the major question facing development planners, in both the short and long terms, remains how to maximize the positive aspects of market access while minimizing its negative aspects.

### **Theoretical Considerations and Hypotheses**

A fruitful analysis of human action requires us to avoid the atomization implicit in the theoretical extremes of under- and oversocialized conceptions. Actors do not behave or decide as atoms outside a social context, nor do they adhere slavishly to a script written for them by the particular intersection of social categories that they happen to occupy. Their attempts at purposive action are instead embedded in concrete, ongoing systems of social relations (Granovetter, 1985, p. 487).

My theoretical and research pursuits share much in common with the ideas expressed by Granovetter. Beyond the academic polemics of actors having complete agency and self-maximizing utility to actors being fully guided by societal and ideological structures, there exists the reality that actors are capable of behaving at both spectrums given the situation and context. What Granovetter is seeking is a "middle path" where the reality of economic and social action can truly be studied and explained. The theory in this section comes from five schools of thought that share this perspective: (1) New institutional economics; (2) Feminist economics; (3) Social capital; (4) Collective action; and (5) Cultural materialism. While these schools of thought present wide-ranging perspectives, they are all interested in a similar question that guides my overarching research pursuits, which is: *To what extent do social structures and institutions impact economic outcomes?*

## **New institutional economics**

New institutional economics (NIE) is a “vast and relatively new multidisciplinary field that includes aspects from economics, history, sociology, political science, industrial organization, and law” (Kherallah & Kirsten, 2001, p. 1). As a field of study, NIE is concerned fundamentally with problems of market coordination and the institutional responses devised by economic agents to solve these problems (Poole, 1999, p. 1). Although NIE shares the neoclassical assumption of rational, self-interested agents, it relaxes some of the more restrictive assumptions of neoclassical perfect competition. Neoclassical assumptions such as perfect competition, homogenous commodities, economic agents motivated only by profit, and perfect information are regarded within NIE to be more of the exception than the rule. As Poulton et al. (1998, p. 10) argue, “the world of perfect competition is a rarely encountered special case of a much broader set of economic scenarios and that economic analysis and policy making should concentrate on understanding and improving actual scenarios.” NIE is appealing to many development practitioners specifically for this reason – it is grounded in reality and concerned with the examination of how real institutions play out in actual markets and the different channels through which they assist market exchange (Fafchamps & Minton, 2002).

Key concepts in NIE are uncertainty, the costs of contracting through market exchange, the role of institutions in reducing costs, and their influence on the organization and development of economic activity (Poole, 1999, p. 1). Institutions have specific meaning and should not be confused with organizations. As North (1990, p. 3) explains, “institutions are the rules of the game in a society; more formally, they are the humanly devised constraints that shape human interaction.” Institutions guide human behavior and reduce uncertainty in human interaction. To be effective, institutions must be enforceable through some sort of sanctions. As one of the leading figures in NIE, North (1990, p. 54) states quite emphatically, “the inability of societies to

develop effective, low-cost enforcement of contracts is the most important source of both historical stagnation and contemporary development in the Third World.”

A distinction is generally made between internal and external institutions. Internal institutions refer to customs, ethical norms, conventions, good manners, etc. that have evolved over time from past human experience and proven useful in solving particular sets of problems. These internal institutions may be formal or informal, which is delineated by whether or not sanctions require the use of formal enforcement mechanisms. Kasper & Streit (1998, p. 106) provide an excellent overview of these distinctions in Figure 1-1.

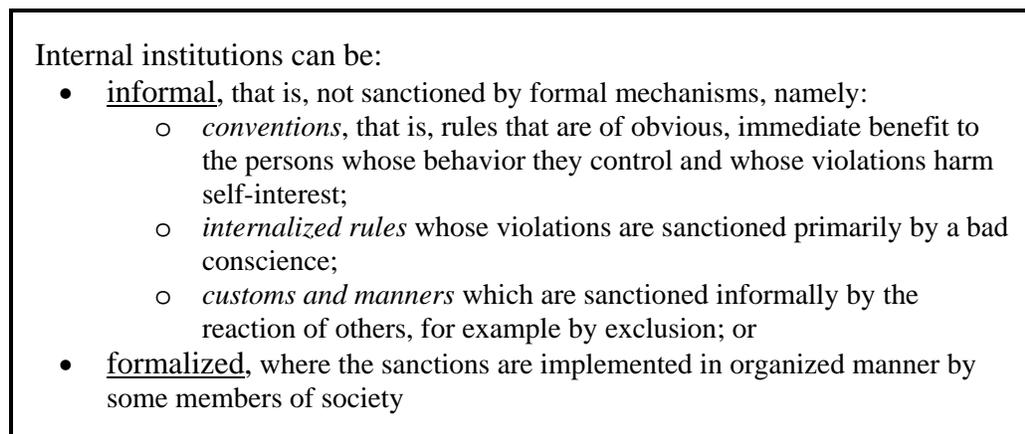


Figure 1-1. Informal and formal internal institutions

In contrast to internal institutions, external institutions are “imposed and enforced from above, having been designed and established by agents who are authorized by a political process. An example is legislation. External institutions are coupled with explicit sanctions which are imposed in formal ways (e.g., law courts following procedures of due process) and may be enforced by the legitimate use of force (e.g., police)” (Kasper & Streit, 1998, p. 31).

**Institutions and economic performance.** As briefly stated earlier, institutions function to facilitate predictability, reduce risk, and thus prevent actors from engaging in opportunistic behavior. Within this field of economics, the focus is on “how institutions promote order in

economic interaction, that is, the patterns that emerges when individuals try to come to grips with the scarcity of resources. Order inspires trust and confidence, as well as reducing cost of coordination” (Kasper & Streit, 1998, p. 195). When actors have trust and confidence that others will act predictably according to specific sets of rules, this lowers not only the cost of coordination but also the costs of transacting. These transaction costs include those of information, negotiation, monitoring, coordination and enforcement of contracts (Bardhan, 1989, p. 1389). One of the central tenets of NIE is that there are substantial transaction costs involved in most forms of economic activity and that institutions can function to lower these costs. Transaction costs are generally classified into four categories. There are information, negotiation, monitoring and enforcement costs. Information costs occur before an exchange transaction and include the costs of obtaining price and product information, as well as the cost of finding a buyer/seller. Negotiation costs deal with the actual costs of the exchange, which could include: commission costs; drawing up contracts; or the costs and time spent bargaining over the exchange. Monitoring and enforcement costs occur after the transaction and involve all the costs necessary to enforce the exchange contract (Lapar et al., 2006, p. 4).

By ignoring the fact that transaction costs exist, as is done by neoclassical economists, a key ingredient is missing on how markets function, and why so often markets fail. As Haggblade (2003, p. 12) makes clear:

Transaction costs are unique to each market participant. The presence of transaction costs, which are specific to each market actor, implies that there is no single effective market price at which exchange occurs. Each agent in the market conducts transactions on the basis of his or her specific transactions costs. The implications of transaction costs are that markets are thin or fail if prohibitively high costs prevent exchange.

Within neoclassical economics, a great deal of energy is focused on studying how profit-maximizing agents try to minimize the sum of the transformation (production) costs. But NIE takes this a step further by arguing for the inclusion of transaction costs (Poulton et al., 1998).

Indeed, it is from this perspective that NIE can more adequately explain why market failures occur so frequently in Africa. Without the appropriate institutions in place, transaction costs remain too high, and thus make market exchange too risky, unpredictable, or simply unprofitable to occur.

NIE proponents would certainly agree with their neoclassic counterparts that it is important to remove inefficient and costly government parastatals in order to promote competition; but, if these initiatives are not matched with an “institutional environment” and specific “institutional arrangements” capable of dealing with emerging transaction and coordination costs, there is little likelihood that marketing agents will enter the market with any frequency. In such an institutional vacuum, markets will either tend to breed monopsonistic characteristics or simply fail periodically or completely.

One final distinction needs to be made is between “institutional environment” and “institutional arrangements.” On the one hand, macro-level analysis in NIE focuses more on the institutional environment that is defined as “the set of fundamental political, social, and legal ground rules that establish the basis of production, exchange and distribution. Rules governing elections, property rights, and the right of contract are examples...” (Davis and North, 1971, *quoted in* Poulton et al., 1998, p. 11). On the other hand, those in NIE centered at the micro-level are more likely to study specific institutional arrangements that are defined as “an arrangement between economic units that governs the way in which these units cooperate and/or compete” (Davis and North, 1971, *quoted in* Poulton et al., 1998, p. 11). This distinction is important when analyzing the type of institutional innovations proposed by policy makers and planners who espouse a NIE perspective. This could be through the development of an institutional environment that lowers transaction costs, such as by recommending official

systems of grades and standards, establishing dispute settlement mechanisms and legal reform, or promoting effective governance and equitable laws. At the micro-level, certain institutional arrangements could be promoted, such as supporting contract farming, encouraging cooperatives and farmer organizations, or supporting trader associations (Dorward, 2003, p. 79). These examples typify the “emerging orthodoxy” agenda for agricultural development and, as briefly mentioned in the introduction, is exactly the type of agenda being implemented in Tanzania under the IFAD-sponsored program.

Hypotheses derived from the new institutional economics literature include:

- **Hypothesis 1a:** Farmer groups with functioning internal institutions for guiding group behavior and action will be better positioned to improve their marketing performance.
- **Hypothesis 1b:** Farmer groups that establish institutional arrangements with other chain actors (i.e., rules for guiding *exchange* behavior) will be better positioned to improve their marketing performance.
- **Hypothesis 1c:** Farmer groups that have lower transaction costs vis-à-vis other competitors will be better positioned to improve their marketing performance.

### **Feminist economics**

Feminist economics encompasses a wide-ranging field of perspectives and development practice. As a body of theory, feminist economics provides a counter perspective to some of the male bias found in neoclassical economics. As part of the development discourse, feminist economics first gained notice with its refutation of mainstream economics’ perspectives on the household economy, and later gained further traction with its scathing critique of the macroeconomic policies and their impact on women and the marginalized during the period of structural adjustment (Elson, 1994). More recently, feminist economics has contributed to the post-structural adjustment debate, by providing alternative perspectives and thoughtful critiques to the positions expressed in new institutional economics and the “emerging orthodoxy.”

As a field of study, feminist economics shares with feminist research the explicit goal:

[To] ask into question existing hierarchies, authorities, norms, traditions, and conventions, to deconstruct canons and question how current (scientific) practices support the status quo, both in society as well as more narrowly in the scientific community (Robeyns, 2000, p. 10).

Feminist economics differentiates itself from the mainstream and other heterodox economics by constantly questioning the underlying gender implications of economic phenomena, highlighting the power differentials between men and women and how these play out within institutions and structures of larger society. Even though it is still an emerging field of study with varied perspectives, there are some central issues. These include studies on the “dynamic within the household, the consequences of policy on women, and the questioning of some ‘male bias’ in dominant economic concepts and generally accepted ideas and assumptions in economics” (Robeyns, 2000, p. 4).

Most of what follows focuses on the “feminist critical economics” school of thought that will be reviewed primarily through the work of Folbre (1988); Elson (1989; 1994); Sparr (1994), but also finds similar perspectives in the work of other well-known feminist researchers, such as Moser (1991); Gladwin (1991); Bakker (1994); Spring (1995), Kabeer (1999); Bruce & Dwyer (1988); and Westermann et al. (2005). Coined by Elson (1994), “feminist critical economics” gained prominence through its critical attack on structural adjustment policies by positing that the “operation of economic reform at micro-, meso-, and macro-levels is male biased, serving to perpetuate women’s relative disadvantage, even though the forms of that disadvantage vary between groups of women and are disrupted and change in the course of policy reform” (Elson, 1991, p. 38).

Sparr’s (1994) book entitled, *Feminist Critiques of Structural Adjustment*, effectively addresses the inherent gender biases found in the neoclassical model espoused by the World

Bank and International Monetary Fund (IMF). Sparr points to the fallacy of neoclassical economics as a “value-neutral science.” She argues that neoclassical theory is culturally and historically specific; it outlines a broad view of economic rationality not inclusive to all societies and peoples; and that it is “historically grounded in the experience of a handful of fairly industrialized economies at a certain point in time” (Sparr, 1994, pp. 15-16). The consequence of such an approach is the assumption that all societies will function as a “fully monetized, market-oriented society.” As Sparr (1994, p. 16) makes abundantly clear:

Of the flaws in the monetization and market presuppositions, two are crucially important. First, in some countries, laws and custom may restrict or prohibit women’s independent control of money; ownership of property; and paid employment.... The theory’s assumption of how people respond to changes in wages, incomes and prices as well as the primary motivation of economic activity (self-interest) are generalizations based primarily on male experience.... [Second] this theory considers work performed, services rendered, and products made that do not have an explicit price to have no economic value.... Thus, much of what society deems as women’s work (bearing and raising children, preparing and growing food for family use, cleaning the house, gathering fuel and water, etcetera) is rendered invisible and unimportant for understanding how economies work.

Following on Sparr’s second point, the feminist critical economics school argues that the neoclassical theorists’ inability to account for women’s productive and reproductive roles as economically valuable has left policy-makers to assume that unpaid domestic work is “infinitely elastic.” But, as Elson (1989, p. 58) suggest, “a breaking point may be reached, and women’s capacity to reproduce and maintain human resources may collapse.” Even if this point is not reached, successful macro-policies only mean increased workdays for the majority of female workers. Elson (1989, p. 58) explains, “terms like ‘cost’ and ‘productivity’ and ‘efficiency,’ that play a large role in discussions of economic policy, are in fact ambiguous. What is regarded by economist as ‘increased efficiency’ may instead be *a shifting of cost from the paid economy to the unpaid economy*” (emphasis added). Thus, when policy-markers pressure governments to reduce social service expenditures, there is an implicit reliance, as Sparr (1994, p. 17) says, “on a

quiet army of wives, co-wives, mothers, daughters, aunts, grandmothers, sisters, female friends and neighbors to pick up the slack.”

**Household economy.** Another assumption made within neoclassical analysis is that a household is generally understood to be a “harmonious unit,” wherein the decision-maker, usually considered to be the man, maximizes the entire household’s utility. But, as the feminist critical economic school argues, this assumption flies in the face of overwhelming data that prove this position wrong. As Bruce & Dwyer (1988, p. 2) point out:

These constructs of household behavior - most prominently that of New Household Economics - are deficient, not only because they fail to acknowledge intra-household negotiation over assets and possibly severe inequalities within households, but because they tend to separate gender dynamics at the microeconomic level from the known external dimensions of gender differentiation and asset distribution.

The inability of neoclassical theory to account for both gender composition of households and the power dynamics within the households stems from a quasi-mythical foundation that presupposes, as Folbre (1988, p. 262) puts it, “that the invisible hand swept the moral economy into the home, where an imaginary world of perfect altruism could counterbalance the imaginary world of perfect self-interest market.”

The fallacy of the “harmonious” household is most apparent when viewing the rather complex and dynamic characteristics of farming systems. In her extensive development experience in Africa, Spring (1995, p. 119) finds the neoclassical household unit of analysis wholly inappropriate:

In terms of gender issues, farming households in Africa might be characterized as overlapping but semi-autonomous production and consumption units; women were not simply embedded within a household, but were rather autonomous or semi-autonomous persons who often had a great deal of independence in terms of food production and distribution. They might make their own decisions on certain plots or for a particular farm enterprise. Men and women usually had differential access to resources, priorities and management strategies, and income uses. This contrasted with the old model in which the farm was seen as a single enterprise with a single-decision maker (usually male).

As the feminist critical economic school points out, the neoclassical perspective fails to account for both gender composition of households and the power dynamics that play an inherent role in such households. Thus, policy-makers design development projects that have the capacity to change the power relations of household in favor of men but not to women (such as access to credit and technical support), regrettably at the expense of women who may have to work with fewer resources.

Furthermore, the neoclassical assumption that labor is freely available underscores the ignorance on part of policy-makers to account for institutional and customary restrictions faced by women in many countries that impedes their “free market entrance, exit, and mobility.” Elson (1994, p. 35) explains:

The ability of women to enter into economic contracts is constrained by the way that state legislation typically construes women as less than full citizens. A key example of this is in the context of economic policy reform in many developing countries is the way in which the ability of women to enter into credit contracts is constrained by women’s lack of rights to family assets. All too often, women cannot sign contracts in their own right and require a male guarantor (father, brother, husband).

Elson further posits, that SAPs emphasis on privatization can have the adverse effect of reducing individual social rights in the name of removing “distortions” from the market. Individual social rights are often reduced when privatization shifts “employment from the formal sector to the informal sector; by erosion of customary use rights to land by commercialization of land; and by direct legislative change to withdraw or restructure state-provided services and benefits and to abolish employee rights, such as minimum wage legislation and the right to strike” (Elson, 1994, p. 35). Not surprisingly, it is women before men, in most cases, who will lose public sector jobs, be forced into the informal sector, and be denied proper use-rights to land.

**Feminist economics and institutional analysis.** Just as feminist economics provided a new and much needed perspective on the impacts of SAPs on women and the poor, the field of

theory and practice has continued to contribute to the ongoing post-adjustment policy debates in Africa. While new institutional economics is the theoretical cornerstone of the “emerging orthodoxy,” feminist economics is firmly situated in the “critical” position of this policy debate. Much of my own critique of the development program under study in Tanzania will utilize a feminist perspective, relying heavily on the Social Relations Approach (March et al., 1999), a gender analysis framework developed by Kabeer (1999). The framework is particularly useful in analyzing how institutions and the organization they embody perpetuate gender and other social inequities. As quoted in March et al. (1999, p. 102):

This framework focuses on the institutional construction of gender relations and hence the institutional construction of gender inequality. It is intended to direct attention to the existence of gender inequalities in the prevailing distribution of resources, responsibilities and power and analyzes how they are thrown up by the operations of the institutions which govern life.

Institutions are created to reduce uncertainty and risk and therefore are important in reducing transaction costs and promoting market development; but that does not mean that all actors benefit equally from institutional development. Many institutions are created to serve the interest of the powerful and perpetuate and reinforce discriminatory behavior and actions toward certain actors, whether by gender, age, class, ethnicity, religion, or otherwise (Westermann et al., 2005). The Social Relation’s Framework draws attention to these inequities by analyzing the formal and informal rules governing social relations at key institutional sites. These are delineated into four domains: household, community, market, and state. In regard to the planned change initiative under study, the framework will be particularly important to ascertain the extent that *community* and *market* institutions produce, enforce, and reproduce the rules that perpetuate socio-political and economic inequities.

All the presented and subsequently discussed hypotheses of this study will put under the critical lens of a feminist economics’ perspective in order to determine the extent that the

underlying factors that constrain or enable a group's ability to improve their market situation have gender and other social inequity implications. But, this study does not want to lose the trees for the forest (i.e., looking at *all* inequity implications and losing focus on specific gender discriminatory institutions). Therefore, to keep the study grounded in a gendered framework, the following hypothesis is put forward:

- **Hypothesis 2a:** The gender composition of groups, especially of the decision makers, will influence group marketing performance.

### **Social capital**

Coleman has been widely recognized as popularizing the concept social capital within the field of development – first in the article, “Social Capital in the Creation of Human Capital” (1988) – and shortly thereafter developing the concept in greater detail in his seminal work, *The Foundations of Social Theory* (1990). He introduced the term social capital as a conceptual tool to bridge the theoretical chasm created by the economists, who see actors having self-interested goals independently attained, and the sociologists, who see actors as essentially non-actors, with actions shaped wholly by the environment by which they inhabit. As Coleman (1988, p. 96) emphasizes:

I have argued for and engaged in the development of a theoretical orientation in sociology that includes components from both these intellectual streams. It accepts the principle of rational or purposive action and attempts to show how that principle, in conjunction with particular social contexts, can account not only for the actions of individuals in particular but also for the development of social organization.

Social capital, then, is largely defined by its function and consists of a number of entities that have at least two elements in common: “they all consist of some aspect of social structures, and they facilitate certain actions of actors – whether persons or corporate actors – within the structure” (Coleman, 1998, p. 97). Social capital is distinguished from other social interactions

by its productive quality, and as such, should be perceived as a resource that help actors achieve their specified interests.

While Coleman can lay major claim for introducing social capital as a conceptual tool, there is no doubt that this term gained considerable academic currency through the works of Putnam (1993a; 1993b; 1995) in Italy and the United States. His definition is the most oft-cited one:

By analogy with notions of physical capital and human capital – tools and training that enhances individual productivity – ‘social capital’ refers to features of social organization such as networks, norms, and social trust that facilitate coordination and cooperation for mutual benefit” (Putnam, 1995, p. 67).

In his highly influential book, *Making Democracy Work: Civic Traditions in Modern Italy* (1993a), Putnam argues that the strongest determinant in Italy for socio-economic development is the vibrancy of what he labels as “civic involvement” or “civic traditions,” that he measures by associational life, newspaper readership, and other indicators of political participation. Much of the recent thinking on social capital has developed from the premises and empirical research he carried out, for as Putnam himself argues: “...working together is easier in a community blessed with a substantial stock of social capital...The social capital embodied in norms and networks of civic engagement seems to be a precondition for economic development as well as for effective government. Development economics take note: Civics matters” (Putnam, 1993b, p. 35).

**Differing perspectives.** While the term has gained wider acceptability both by theorist and practitioners, social capital remains theoretically and conceptually elusive. Two differing perspectives have emerged that attempt to bring greater conceptual clarity. One school of thought follows Coleman’s original perspective by viewing social capital as endowed in individuals; while, the other school of thought resembles Putnam’s perspective where social capital is largely the property of groups, giving it public good aspects (Harriss & Renzio, 1997).

The “group” perspective represents a great deal of the work carried out under the auspices of the World Bank Social Capital Initiative (World Bank, 2000), including such authors as Narayan (1999), Grootaert (1999), and Uphoff & Wijayaratna (2000). This perspective often links *structural* forms of social capital (e.g., social networks, groups, associations) with more *cognitive* forms of social capital (e.g., trust, solidarity, shared norms and values). The focus of inquiry is how groups maintain social capital as a collective asset to enhance their utility. In contrast, the “individual” perspective focuses on how individuals invest in social relations to generate utility. This perspective focuses strictly on social structures and represents much of the recent literature by social network researchers, such as Granovetter (1992), Portes (1998), Lin (2001), and Burt (2005).

**Structural social capital.** One area of agreement between both perspectives is that certain types of *structural* social capital serve different purposes, and thus yield different benefits. The most common typological distinction is between “bonding” social capital and “bridging” social capital. Bonding social capital refers to “ties to people who are similar in terms of their demographic characteristics, such as family members, neighbors, close friends, colleagues” and bridging social capital refers to “ties to people who do not share many of these characteristics” (Grootaert & Bastelaer 2001, p. 4). A number of researchers have made similar typological distinctions for describing difference in social capital. These include Woolcock’s (1998) “embedded” social capital, which refers to intra-community ties (i.e., bonding social capital) and “autonomous” social capital, which refers to extra-community ties (i.e., bridging social capital). Similarly, Maluccio et al. (2003) refer to “bound” networks (i.e., bonding social capital) and “achieved” networks (i.e., bridging social capital).

Lin's (2001) work on social capital captures the essence of the typological distinctions of structural social capital, and thus, to maintain a level of conceptual clarity, this study utilizes his definitions for bridging and bonding social capital. Bonding social capital is defined as "expected returns of expressive actions for preserving or maintaining resources" and bridging social capital is defined as the "expected returns of instrumental actions for searching for and obtaining resources" (Lin, 2001, p. 18). Examples of bonding social capital include: membership in groups within a community (i.e., producer groups; processing groups; labor sharing groups; rotating credit and savings associations); and farmer personal networks with a high number of intra-community ties that are more horizontal in nature. Examples of bridging social capital include: membership in groups and farmer personal networks with more extra-community ties, such as relationships with service providers (i.e., local government ministries and NGOs) and agribusiness partners.

Hypotheses derived from the social capital literature include:

- **Hypothesis 3a:** Farmer groups with a high level of trust among members will be better positioned to improve their marketing performance.
- **Hypothesis 3b:** Farmer groups that exude more altruistic rather than self-interested behavior among members will be better positioned to improve their marketing performance.
- **Hypothesis 3c:** Farmer groups with more ties to other organizations in and outside of their community will be better positioned to improve their marketing performance.

The first two hypotheses deal with *cognitive* social capital and its effect on group marketing performance. The third hypothesis is concerned with testing the effects of *structural* social capital on group marketing performance.

## Collective action

The literature on collective action in theory and practice emerged from dissatisfaction and failures of many of the rural development programs of the 1960s and 1970s. The development paradigms of this period assumed that communities would willfully engage in collective activities, but gave little scrutiny to understand the conditions or how these actions might be sustained (Meizen-Dick et al., 2004). Beginning with the work of Olson (1965) and followed by the works of others including Axelrod (1984), Uphoff (1986), and Ostrom (1990, 1992), a body of theory soon developed attempting to explain the enabling conditions for successful collective action outcomes. Much like the concept of social capital, there is no one singularly agreed upon definition. For example, Marshall (1988) defines collective action as “action taken by a group (either directly or on its behalf through an organization) in pursuit of members’ shared interests” (quoted in Meizen-Dick et al., 2005, p. 2). The definition has merit but puts bias on the idea that one must be a “member” of a group for collective action to occur. Meizen-Dick et al. (2005, p. 5) does not provide a definition but does point to a number of commonalities in collective action definitions:

What most definitions have in common is that collective action requires the *involvement of a group of people*, it requires a *shared interest* within the group and it involves some kind of *common action* which works in pursuit of that shared interest. Although not often mentioned, this action should be *voluntary*, to distinguish collective action from hired or corvee labor (authors’ emphasis).

Some of the greatest gains empirically and theoretically on the subject of collective action has been found in the field of natural resource management (NRM). Of particular importance has been the works of Wade (1988), Ostrom (1990; 1992), Baland & Platteau (1996), and Agrawal (2001, p. 1659) synthesized these works in an effort to identify a common list of enabling conditions for successful collective action outcomes. The following conditions were supported in the literature: (1) small group size; (2) clearly defined boundaries; (3) shared norms; (4) past

successful experiences; (5) appropriate leadership; (6) interdependence among group members; (7) heterogeneity of endowments, homogeneity of identities and interests, and (8) low levels of poverty.

**Synthesis of social capital and collective action.** A review of collective action theory parallels the social capital literature. Uphoff & Wijayarathna (2000, p. 1876) highlight how structural forms of social capital (i.e., roles, rules, procedures, social networks) *facilitate* mutually beneficial collective action and cognitive forms of social capital (i.e., norms, values, attitudes, trust) are *conducive* for mutually beneficial collective action. The authors show how these forms of social capital brought about successful collective action measures in management of irrigation schemes. Other studies, such as Pretty & Ward (2001) and Krishna (2001), have similarly shown how human and social capital formation – often represented in community-based groups – have been pivotal in solving many of the communities’ development problems, particularly in the areas of natural resource management.

While there is substantial evidence behind the importance of social capital to maintain and improve natural capital, there are far fewer studies that examine how social capital is utilized for purposes of collective action to improve groups’ marketing performance. This is particularly apparent when examining the extent that group characteristics may influence or determine certain marketing outcomes. The studies that do emerge are often looking at higher-tier organizations, such as cooperatives or agribusiness enterprises. For example, Jones (2004) shows how interpersonal trust and wealth heterogeneity among cooperative members were enabling conditions for cooperative success, especially during the first stages of cooperative formation. Johnson et al. (2002) show how social capital, as expressed through business firm relationships, contributed positively to firm productivity and performance.

**Social capital and collective action initiatives.** The body of theory and empirical evidence encapsulated in the social capital and collective action literature is particularly useful for examining how certain group characteristics (i.e., group size, group age, current activities, gender composition) and selected group asset endowments (i.e., physical, financial, social, human, and natural capital) can be determining factors in successful collective action outcomes, which in this case means an improved market situation for farmer groups. There are a number of collective action initiatives that will improve – directly or indirectly – a farmer group’s market situation. Some of these initiatives are more geared to a group’s production performance, others more directly to their marketing performance, while others can affect both. Table 1-2 shows some of these collective action initiatives. Although this is not an exhaustive list, it does highlight many of the collective action measures farmer groups in this study attempted to undertake to improve their market situation. As for the benefits accrued from such actions, these can include: increased incomes through increased sales and or higher profit margins; a more reliable or steady income flow; and enhanced food security.

Hypotheses derived from the collective action literature include:

- **Hypotheses 4a – 4f:** Farmers groups will be better positioned to improve their marketing performance if the group has some or all of the following characteristics:
  - 4a** Small group size
  - 4b** Past successful experiences
  - 4c** Interdependence among group members
  - 4d** Heterogeneity of endowments
  - 4e** Homogeneity of identities and interests
  - 4f** Low levels of poverty

Table 1-2. Collective action initiatives and improved performance

Types of collective action initiatives	Improving production performance (input)	Improving marketing performance (output)
Access information on farming technology and innovations	√	
Lower cost of production through labor sharing configurations	√	
Lower input costs through bulk purchasing	√	
Access extension and financial services and training (from government, NGOs)	√	√
Access to contract farming arrangements	√	√
Access to formal and informal sources of credit (e.g. rotating credit schemes, micro-finance institutions, commercial banks).	√	√
Increase bargaining power vis-à-vis processors, traders, retailers		√
Become involved in more post-harvest value-added activities		√
Lower transportation costs		√
Reduce transaction costs by establishing long-term relationships with market intermediaries		√
Access information on prices, quality of goods, and consumer preferences		√

*Adapted from Heinemann (2002, pp. 1-2)*

### **Cultural materialism**

Cultural materialism is an important final addition to the theory section because it encourages the application of a scientific approach to find the ultimate *drivers* of a change process. Marvin Harris (1979), its founder, endeavors to bring forth a scientific model to the study of culture. He seeks “etic” rather than “emic” explanations for human behavior, being more interested in analyzing the underlying rules and realities of societies that can be

scientifically measured, rather than studying a people's "point of view," – such studies are seen as smeared by subjectivity and unsubstantiated theoretical conclusions (Harris, 1979, p. 47).

The field of cultural ecology influenced Harris' cultural materialism perspective in terms of his use of general systems theory and strong emphasis on analyzing techno-economic and techno-environmental variables to explain cultural behavior and change. His work also parallels the cultural ecologists in their refutation of cultural relativism, who argue for more cross-cultural analysis (Mcgee & Warms, 1996).

Harris was also influenced by Marxist thought, but he relies upon a *selective* Marxist analysis that rejects the Hegelian notion of dialectics and class struggle, and instead, emphasizes the importance of Marx's theories on the modes of production and reproduction (Harris, 1979, p. 64). Harris insists on the primacy of modes of production and reproduction as the determining reasons for human behavior and beliefs within a society. Harris calls this the infrastructure of a sociocultural system. Two other specific domains exist within this paradigm: the social structure and the superstructure. Under the mantle of modes of production and reproduction, the infrastructure would deal with such issues as techno-environmental relationships, work patterns, technology of subsistence, demography, ecosystems, mating patterns, fertility, and mortality. The social structure would include everything involved with the domestic economy (family structure, domestic division of labor, social organization, age and sex roles, enculturation, education) and the political economy, which deals with such issues as political organization, class, factions, discipline, war, and political socialization. The superstructure consists of all the ideologies, rituals, or symbols associated with the social structure (Harris, 1979, pp. 52-53).

Within this paradigm, the infrastructure becomes the research priority because it is at this level that culture interfaces with nature. His reasoning goes as follows:

Since the aim of cultural materialism, in keeping with the orientation of science in general, is the discovery of the maximum amount of order in its field of inquiry, priority for theory building logically settles upon those sectors under the greatest direct restraints from the givens of nature. To endow the mental superstructure with strategic priority, as the cultural idealist advocate, is a bad bet. Nature is indifferent to whether God is a loving father or a bloodthirsty cannibal. But nature is not indifferent to whether the fallow period in a swidden field is one year or ten. We know that powerful restraints exist on the infrastructural level; hence it is a good bet that these restraints are passed on to the structural and superstructural components (Harris, 1979, p. 57).

Thus, cultures can be studied in a scientific matter by measuring the immutable laws of nature and seeing to what degree they affect humans. Harris' paradigm takes on a causal sequence by his reasoning that the social structure and superstructure become dependent variables of the infrastructure. In other words, change will occur in society on the social and then ideological level when the modes of production and reproduction have changed, which summarily, is based on the environment upon which it rests.

Although the infrastructure plays the determinate role, the social structure and superstructure are not relegated to passive domains. Harris' sociocultural system takes on a diachronic functionalist model wherein interdependencies exist between the three domains through system-maintaining and system-altering roles. The social structure and superstructure take on system-maintaining roles by resisting innovations occurring at the infrastructural level, and thus attempt to preserve the prevailing sociocultural system. But, the social structure and superstructure can also take on system-altering roles by lessening resistance to infrastructural changes and thus make adoption of new innovations occur more quickly and pervasively (Harris, 1979, p. 72). These ideas can be expressed more clearly by way of an example. Rapid population growth in the rural areas has led to land intensification and consequently to declining soil fertility. Population growth and declining soil fertility are infrastructural changes that will impact the social structure and superstructure of a sociocultural system. One on hand, the social structure and superstructure may attempt to resist these changes (e.g., farmers refuse to accept

new innovations appropriate to land intensification practices) in an effort to maintain the sociocultural system they have known so well. On the other hand, the social structure and superstructure may lessen this resistance (e.g., farmers form groups and obtain trainings on soil management practices; the positive results encourage other farmers to form groups to access the same trainings) and play a more system-altering role that quickens the infrastructural changes that bring about a new sociocultural system

**Putting cultural materialism into the study context.** Given the fact that the primary purpose of this study is to identify the underlying factors that enable farmers to improve their market situation, the study needs to give due consideration to the infrastructure domain since it should play, according to the cultural materialists, the determining role in whether farmer groups succeed or fail to improve their market situation. The NGOs in this study are trying to create a culture of entrepreneurship, with the fundamental message being that farmers need to produce for markets rather than trying to market what they produce. This means that farmers and farmer groups need to take more chances and become less risk-averse. The NGOs hope to instill this behavior through capacity-building training activities. Essentially, this planned change initiative is utilizing the classic education model of social change, in which the basic premise is that the way a person behaves can be altered by changing the way she or he thinks (Bernard, 1995, p. 24). From cultural materialist perspective, this assumes that changing the superstructure – the domain of ideology – will lead to lasting culture change in terms of farmers' attitudes, values and beliefs concerning the market. Cultural materialists would argue that unless there are changes to the infrastructure, or at the very least, an enabling infrastructural environment within which farmers can put into practice what they have learned, this model of social change will have little lasting impact. Although cultural materialists are often more concerned with culture change

phenomena in the longer term, the basic fundamentals underlying this theory can still provide an appropriate lens to research and question the utility of this planned change initiative. It also provides an overarching and final hypothesis to this study:

- **Hypothesis 5a:** Farmer groups with infrastructural advantages over their competitors (i.e., better agro-ecological and physical market access conditions) will be better positioned to improve their marketing performance.

By concluding the literature review section, attention now turns to the next chapter where background information is provided on the development program under study (AMSDP) and the specific region where the research was conducted.

## CHAPTER 2 PROGRAM AND STUDY AREA BACKGROUND

This chapter opens with background information on the country of Tanzania. This is followed by a discussion of the planned change initiative under study, the Agricultural Marketing Systems Development Program (AMSDP). After a general overview of AMSDP's project components and the primary stakeholders, the chapter continues with a discussion of two local NGOs tasked with implementing one of the project components in the Arusha and Kilimanjaro regions of northern Tanzania. With these two regions as the designated study areas of the research, background information is provided on the demographics, farming systems, agro-ecological and market conditions of the study area within the context of the farmer groups participating in AMSDP. The chapter concludes with a discussion of the specific training activities conducted by the two local NGOs for the farmer groups.

### **Country Background**

This study takes place in the east African country of Tanzania. From the late 1960s to the early 1980s, the Tanzanian government promoted a socialist model of economic development. The country's first President after independence, Julius Nyerere, called for the nationalization of factories and plantations, emphasizing a social and economic policy of self-reliance, egalitarianism, and communalism. This included the collectivization of the country's agricultural system, known as *Ujamaa* – a Swahili term meaning familyhood (Haan, 2000).

By the 1980s, the country's trade deficit increased and foreign capital inflows declined. The *Ujamaa* policy was not showing the anticipated results, but in fact resulted in low product quality and an inefficient economy. The government responded with the self-guided National Economic Survival Program in 1981, and began official structural adjustment programs in 1982. By 1984, economic reforms had raised agricultural producer prices, reintroduced cooperative

unions for crop marketing, frozen the budget deficit, depreciated the shilling by 40 percent, raised government wages, and eliminated consumer price subsidies on maize (Wobst, 2001). Still, the Tanzanian government felt external pressure from international organizations to do more. The government initiated two Economic Recovery Programs, the first in 1986 and the second in 1989, that included such measures as devaluing its local currency, removing price controls, and opening the economy to international trade (IFAD, 2002).

By the early 1990s, the macro-economic reforms were starting to yield some positive results, with the economy growing 4 to 5 percent per year in the second half of the 1990s, and by 5 to 6 percent in more recent years (Minot, 2006). However, the impact of these macroeconomic reforms on rural areas has been hotly debated, with one side arguing that market liberalization brought new opportunities to farmers through high-value agriculture and export markets, while the other side arguing that these reforms only widened the gap between the poor and rich, leaving many farmers worse off in the process (Minot, 2006).

Regardless of this debate, the fact remains that Tanzania is one of the poorest countries in the world, with over a third of Tanzania's population of 37 million living below the poverty line. The average life expectancy of Tanzanians is 45 years, and the adult prevalence of HIV/AIDS is estimated at 9 percent (CIA, 2007). As with many African countries, Tanzania's agricultural sector is the backbone of the economy, employing 80 percent of the labor force and contributing 45 percent of the gross domestic product. The sale of agricultural commodities accounts for 70 percent of rural incomes, with most agricultural production coming from the smallholder farmer section, and over 50 percent of the farms being less than one hectare (USAID, 2007). As discussed in chapter 1, African governments like Tanzania, with backing from the donor agencies, are committed to reducing rural poverty through the promotion of policies and

development programs that focus on boosting the agricultural productivity of smallholder farmers. This provides the backdrop for the formulation and implementation of the development program under study.

### **Agricultural Marketing Systems Development Program (AMSDP)<sup>3</sup>**

In December 2001, an agreement was reached between the International Fund for Agricultural Development (IFAD) and the government of Tanzania to provide approximately 42 million US dollars for the Agricultural Marketing Systems Development Program (AMSDP).

IFAD is a specialized agency of the United Nations (UN) and its mission is to “enable the rural poor to overcome poverty.” IFAD's activities are guided by three strategic objectives:

- To strengthen the capacity of the rural poor and their organizations
- To improve equitable access to productive natural resources and technologies
- To increase access by the rural poor people to financial services and markets

In terms of the financial specifics of AMSDP, IFAD is loaning the Tanzanian government approximately 16.34 million dollars and the African Development Fund, as the major co-financier of the program, is loaning 14.46 million dollars.<sup>4</sup> Other donor participation includes Ireland Aid (with a grant of 1.1 million dollars), with USAID, France, and the Netherlands providing grants either directly to the government or through non-governmental organizations of approximately 4.49 million dollars. The government of Tanzania is contributing 4.22 million dollars and project beneficiaries are expected to contribute about half a million dollars. IFAD is

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<sup>3</sup> Unless otherwise cited, all information from the section entitled, “Agricultural Marketing Systems Development Program,” comes from the IFAD website, under the heading, *About IFAD* [online] at the following website address: <http://www.ifad.org/governance/ifad/ifad.htm>

<sup>4</sup> Membership to IFAD is open to UN member states. Most of IFAD's resources are made available to low-income countries by providing highly concessional loans (40 year repayment term with 10 year grace period). The resources to finance IFAD loans and grants come from three sources: 1) donor member contributions; 2) investment income; and 3) reflows from past loans. Under most loan agreements, IFAD finds partner aid organizations, such as bilateral agencies (USAID, DANIDA, DFID, etc.), multilateral agencies (IMF, World Bank, other UN agencies), and international NGOs, to co-finance loans and make other program contributions. Recipient countries and project beneficiaries are also expected to make contributions.

recognized by the other co-financiers of the program as the official appraising institution, and thus carries additional monitoring and evaluation functions (IFAD, 2001, p. 8).

The *overall goal* of the AMSDP is “to increase the income and food-security situation of the rural poor in the Northern and Southern Marketing Zones of the United Republic of Tanzania.” It proposes to do this through a comprehensive rehabilitation of Tanzania’s agricultural marketing system by “making rural markets work better and empowering smallholders within them.” Accordingly, AMSDP expects to:

- strengthen about 1,000 producers groups (PGs) to enable them to have a better bargaining position and more leverage on policy formulation, identification of marketing opportunities and price negotiations for both inputs and outputs;
- assist the government of Tanzania in rationalizing the existing policies relating to regulation, taxation, and the exchange rate so that it can contribute to improved marketing system efficiency as a whole;
- improve market infrastructures through construction and rehabilitation of 700 km of rural roads, 200 km of access roads and 30 market centers, and through financing for postharvest facilities;
- strengthen capacity of the Ministry of Cooperatives and Marketing (MCM) to collect, compile and disseminate agricultural marketing information;
- help PGs, grass-roots institutions (GIs), traders and processors to access inventory and capital loans from the commercial banks as required for promotion of marketing activities; and
- establish and strengthen both vertical and horizontal linkages among PGs, GIs, processors, local marketing chains and exporters (IFAD, 2001, p. vi)

These tasks will be accomplished under five project components: (1) Policy Development; Support; (2) Producer Empowerment and Market Participation; (3) Financial Market Services; (4) Rural Marketing Infrastructure Support; and (5) Program Organization and Coordination (IFAD, 2001, p. 4).

While these project components are interrelated and interact at different levels, my research has focused primarily on the second component: Producer Empowerment and Market

Participation. This component is designed to assist producer groups, grass-roots institutions, and small and medium-scale traders and processors to:

- strengthen their social, organizational and financial structure to enable them to participate effectively in marketing activities;
- empower them technically through improved market information, extension and research services to enhance their leverage and bargaining power vis-à-vis more organized agro-processors, wholesalers, and exporters; and
- establish appropriate vertical and horizontal linkages with formal market players to minimize the risks and uncertainties associated with the lack of assured market opportunities and prices for both inputs and outputs (IFAD, 2001, p. 6).

Almost a third of the program funding (approximately 12 million US dollars) is being used to achieve this component. Development-oriented national and international NGOs are carrying out most of the tasks listed above (IFAD, 2001, p.9).

The research site for this study is located in the “Northern Marketing Zone” situated in the northern highlands region of Tanzania. In the initial stage of the program, eight NGOs (four in the southern and four in the northern zone) won bids to work on the AMSDP project. The NGOs – or partner agencies (PAs) as they are referred to in the program – have been charged with two primary responsibilities: (1) establish and/or strengthen local-level agricultural producer groups and (2) establish marketing links between these producer groups and other market intermediaries (i.e., traders, processors, wholesalers, etc.).

### **The AMSDP Stakeholders**

The *primary* stakeholders for the project component – Producer Empowerment and Market Participation – are shown in Figure 2-1. This is followed by Figure 2-2, which shows the basic communication and budgetary channels for the stakeholders in Figure 2-1.

**Program Steering Committee (PSC):** The PSC has overall responsibility of coordinating AMSDP. It is chaired by the Permanent Secretary of the Prime Minister's Office (PMO), and the PSC members include: relevant government ministries (i.e., Ministry of Cooperative and Marketing, Ministry of Agriculture and Food Security), Tanzania Chamber of Commerce, Industry and Agriculture (TCCIA), participating banks, and national NGOs and farmer cooperatives representing the interests of smallholder agriculture.

**Program Coordination Unit (PCU):** The PCU officials are responsible for the practical day-to-day operations of all five components of the AMSDP. The PCU has two sub-offices located in each of the marketing zones.

**District Development Committee (DDC):** The DDC is composed of locally elected representatives of village, ward, and districts councils that are responsible for implementing district-level development programs. This is not a creation of the AMSDP program. The DDC is working in coordination with AMSDP and shares oversight responsibilities with the sub-offices of the PCU. The DDC, as representatives of the district offices, are also responsible for approving the budgets of the partner agencies.

**Focal Area Advisory Group (FAAG):** The FAAG is the primary communication link between the District, the partner agencies, and the producer groups. This group is chaired by the District Executive Director (DED) and its members include: partner agency field staff, district extension and marketing officers, producer group representatives, and district branch members of the TCCIA. FAAG carries the specific responsibility of monitoring the progress of program activities, including budget oversight. All PA proposed expenditures must be approved by the FAAG on a quarterly basis before further program activities within the district can continue. FAAG can also provide technical assistance to producer groups as requested by PAs.

**Partner Agencies (PAs):** Eight PAs were originally selected by AMSDP to carry out the project component involved with producer empowerment and market linkages. In the second year, another twelve PAs were selected to cover the other regions of Tanzania. My research involves work with two of these PAs situated in the northern highlands of Tanzania.

**Producer Groups (PGs):** These producer groups are composed of smallholder farmers and they are the targeted beneficiaries of the AMSDP program. More detail will be given later on the composition and the characteristics of these groups.

Figure 2-1. Primary AMSDP stakeholders (*adapted from IFAD, 2001, pp. 11-12*)

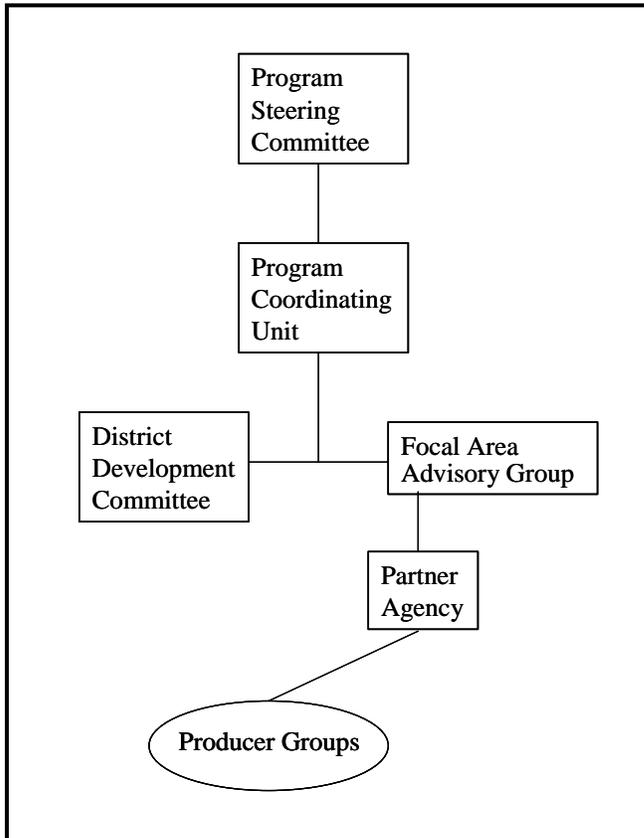


Figure 2-2. Communication and budgetary flows of primary stakeholders

Apart from the primary stakeholders, there is also a wide-range of market chain actors who are key stakeholders in the context of this project. They are not the target audience but some of these chain actors have benefited from this intervention due to the linkages forged between them and producer groups. Therefore, it is useful to point out some of the key market participants. Mendoza (1995, pp. 260-261) provides a classification of the participants in the marketing process, which is represented in Figure 2-3.

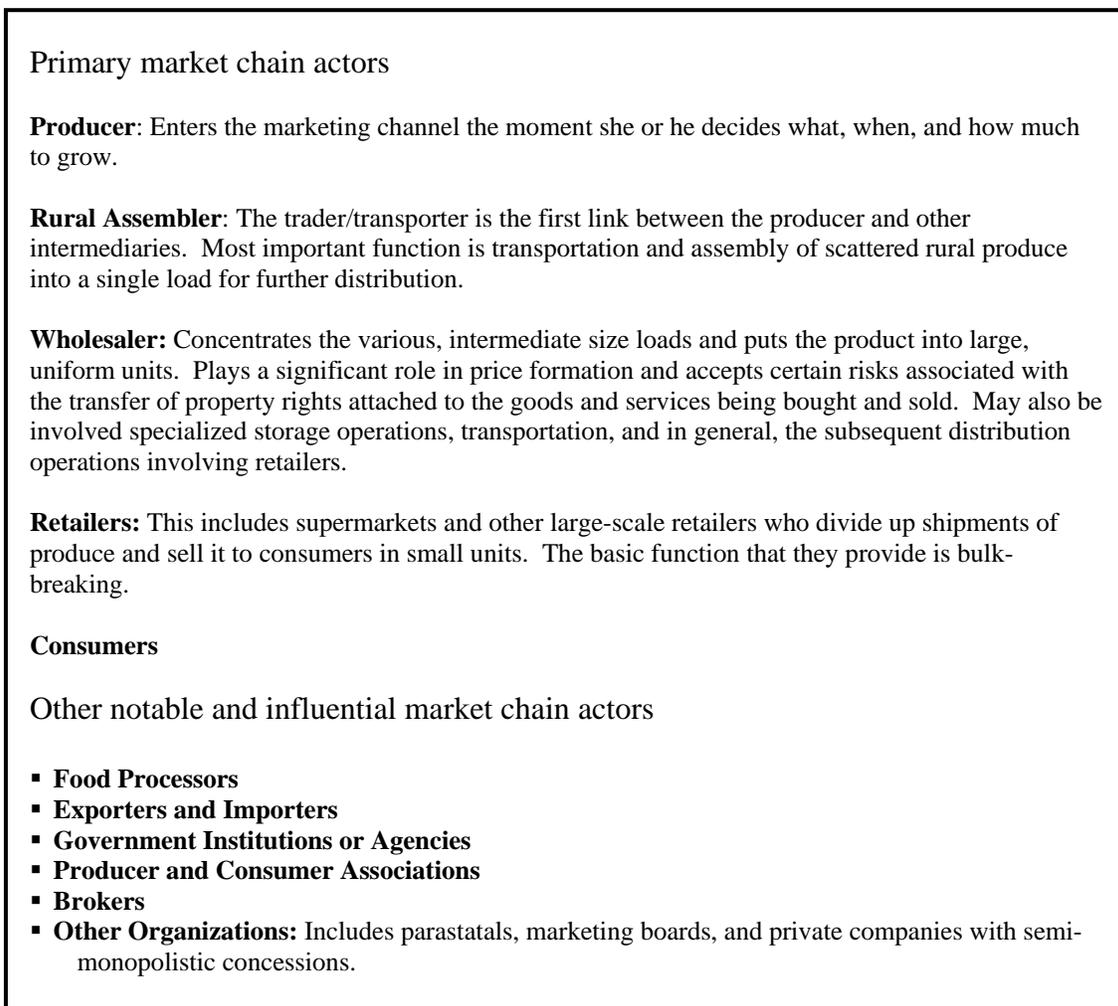


Figure 2-3. Market chain actors as other key stakeholders

**Stakeholder partnerships.** The main tasks of the partner agencies (PAs) are to train existing or newly formed producer groups in a number of capacity building and marketing skills measures, and where possible, to establish sustainable market linkages with other market chain actors. The PA relationship with the district-level stakeholders (i.e., district development committee and focal area advisory group) was crucial from the beginning given the management and fiscal responsibilities afforded to the districts. These responsibilities included: selecting the focal areas where the program should be implemented with new producer groups (with input from the PA); overseeing the general progress of the project; and most importantly, approving all

budgets and allocating required funds to the PAs. From the beginning, this “partnership” between the PA and district officials was tenuous at best and culminated in much confusion and conflict between these two stakeholders for reasons that will be highlighted later.

Under the program contract agreement, each PA was expected to train 20 producer groups and establish sustainable market linkages between these groups and other chain actors on an annual basis. This was to be done with a new cohort of groups annually over a three-year period, bringing the total to 60 capacitated producer groups linked to markets for each PA. Furthermore, if judged to fulfill their contractual agreement, the PAs would be hired on for another round to continue the process, with a grand total of 120 participating producer groups per PA.<sup>5</sup>

### **Research Sites and Partner Agencies**

AMSDP started in January 2004 with eight PAs implementing the program with producer groups in eight regions located in the northern and southern parts of Tanzania. The partners for this study were two local NGOs participating in the role of PAs in the Arusha and Kilimanjaro regions. They are the Traditional Irrigation and Environmental Development Organization (TIP) and FAIDA Market Link (FAIDA).<sup>6</sup> During the research period, both PAs worked in one specific district in each region. TIP worked with producer groups in the district of Arumeru, in the Arusha region, and FAIDA worked with producer groups in the district of Hai, in the Kilimanjaro region. Although working in two different regions, the two districts actually border each other. Arumeru district surrounds the slopes of Mt. Meru – Africa’s fifth highest mountain (4,533 meters) – and Hai district is situated on the plains and lower slopes between Mt. Meru and

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<sup>5</sup> AMSDP did not specify the exact number of farmers that should be in each group, but generally speaking, the farmer groups ranged in size from 20 to 40 members. If we assume an average of 30 members per group, the project expected each PA to work with approximately 3,600 smallholder farmers. AMSDP ended up contracting twenty partner agencies to implement the project. Maintaining a similar estimate of 30 members per group, AMSDP expects approximately 72,000 smallholder farmers to participate in this AMSDP project component.

<sup>6</sup> *Faida* means profit in Swahili.

Mt. Kilimanjaro – Africa’s highest mountain (5,895 meters). The districts, and my research sites, are pointed out in Figure 2-4.



Figure 2-4. Map of Tanzania with designated research sites (*adapted from IFAD, 2001, p.3*)

The soils on the slopes of Mt. Meru and Mt. Kilimanjaro are volcanic and have high-to-medium levels of fertility. The regions have a bimodal rain pattern, with the “long” rains occurring between March and May and “short” rains between October and December (Haan, 2000, p.76). On average, Hai district gets between 500 to 800 millimeters (mm) of rain per year, and Arumeru gets somewhat more with averages for the district over 1000 mm of rain per year (Mansoor & Piters, 1999, 21). Smallholders traditionally plant food crops during both seasons, but in recent years, the short rains have been unreliable, starting later than usual and often without the same level of rainfall as in the past. This is especially true for groups in lower

elevation areas, that includes many of the groups in Hai district living on the plains between the mountain ranges.

The total area of Arumeru is 2,896 square kilometers (sq. km), with a population of 516,814 and a population density of 181 people per sq. km. Hai is a smaller district covering a total area of 2,186 sq. km, with a population of 259,958 and a population density of 117 people per sq. km. (R & AWG, 2005, p.104). Out of the 199 districts in Tanzania, both Hai and Arumeru are in the top twenty districts with the *lowest* levels of poverty. In Arumeru district, 18 percent of the households are below the poverty line and 22 percent of the households are below the poverty line in Hai district (R & AWG, 2005, p. 75).<sup>7</sup> Further information on demographics and farming systems within the context of the study's sample of farmer groups will be discussed later in this chapter.

### **Traditional Irrigation and Environmental Development Organization (TIP)**

TIP has been an officially registered NGO in Tanzania since 1999. Before becoming its own entity, TIP was a project funded by the Netherlands Development Organization (SNV). The project was undertaken to improve traditional irrigation systems in various regions of Tanzania. SNV emphasized the inclusion of participatory approaches and gender awareness in dealing with the many water user groups established under its watershed management schemes. After becoming a NGO, TIP continued to build a reputation as one of the more experienced organizations dealing with participatory development and gender within the country, particularly in the field of natural resource management. TIP also began to build partnerships with other donors and research institutes. Of particular importance to this study, TIP developed a relationship with the International Center for Tropical Agriculture (CIAT), that provided

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<sup>7</sup> In Tanzania, the basic needs poverty line for 2000/01 was set at 262 Tanzanian Shillings (*TShs*) per adult equivalent per day, which is the equivalent of US\$ 0.33 (R & AWG, 2005, p.54).

technical assistance in the field of agro-enterprise development – a programmatic component that TIP added to its organization in 2002. By the start of the AMSDP project in 2004, TIP had only implemented an agro-enterprise approach with a few farmer groups, and with mixed success. Thus, it started the AMSDP with a great deal of technical capacity – thanks in large measure to CIAT – but not with a great deal of practical experience.

### **FAIDA MaLi (FAIDA)**

FAIDA shares a somewhat similar history to TIP. From 1994 to 2003, FAIDA was also a SNV-funded project. Since its inception, it has been involved in facilitating linkages between smallholder farmers and agricultural companies. After becoming a Tanzanian-owned and operated non-profit entity in 2004, FAIDA has continued to play a leading role in developing market linkages between local growers and agricultural business at both the regional and international level. At the start of AMSDP, FAIDA brought in a large amount of marketing experience, as well as a reputation that was recognized by agricultural businesses. However, as will be explained later, FAIDA's particular strengths could not be utilized fully under the confines of AMSDP.

### **Development Approaches**

As with any NGO, TIP and FAIDA have their own development approaches or processes. TIP's entry point for agro-enterprise development starts at the farm level by either working with existing farmer groups or establishing new groups. Utilizing a bottom-up participatory approach, TIP works closely with groups to develop their capacities through skills training and then to strategize together on how best to exploit possible market opportunities. Through TIP-facilitated market research and analysis, groups may decide to develop an agro-enterprise based on existing products (crops they already grow), or try new agricultural products that show greater market potential but may be riskier.

The entry point for FAIDA is different and starts by engaging agricultural companies interested in finding farmers to grow particular products for them. Once FAIDA has clarified the needs of the company, it finds the most appropriate agro-ecological and infrastructural conditions suitable for the crop in question. In this top-down oriented approach, only when these conditions have been met are farmers who can satisfy the demands of the agricultural company found. FAIDA then brings the parties together and provides technical assistance that may include: contract negotiations; skills trainings (i.e., group dynamics, crop husbandry practices, business skills training, etc.); conflict management; as well as other areas to ensure that both company and farmers maintain a good working relationship.

In terms of exit strategies, both TIP and FAIDA claim that ideally they remove themselves from the process once the market linkage is well established and sustainable. However, they admit that in practice, their exit strategy is usually tied more to diminished funds to support the linkage than to issues of sustainability.

### **Group Selection Criteria**

Based on IFAD's mandate to target the rural poor, AMSDP provided a list of criteria to be used by the PAs and District Office in their selection of project areas and farmer groups. The criteria list included the following:

- The project participants should already be involved in farming and/or trading.
- The average cropped area of smallholders within producer groups should not exceed 2 hectares (ha.).
- About 50 percent of group members should be from the poorer households with an income below the poverty line.
- At least 40 percent of the beneficiaries of the group should be women and female-headed households.
- At least one crop with high market potential has been identified for cultivation and local trade.
- Access roads to areas of production exist and within reasonable reach from the main access road.

- There should exist a minimum critical mass related to the proposed marketing activity with similar marketing aspirations.
- The group members live and operate in walking distance of one another and are willing to collaborate in specific activities (such as training).

Even though the PAs are expected to use these guidelines in their selection process, both FAIDA and TIP admit it was impossible to meet all these criteria because of the reality facing smallholder farmers. The program aims to work with poor farmers who have crops with market potential and good access to roads. The problem is that in reality most poor farmers do not have crops with market potential and generally live in areas with poor road access. Another reason the PAs had difficulty implementing these criteria were due to local politics. Each District Office (DO) had its own agenda when deciding which areas and groups should be chosen for the project, and it had more to do with pleasing the DO and its local constituents than in meeting requirements of a criteria list.

In Arumeru district where TIP was operating, the District Office chose the most politically expedient path by selecting a producer group from each ward.<sup>8</sup> In some cases, an existing producer group was chosen to represent the ward. In other cases, smaller groups were told to provide representatives to establish a ward level group; in cases where few groups existed, individual smallholders were chosen to represent their village. The decision by the District Office to spread the project over the entire district may have pleased a wide array of constituents, especially during a presidential election year, but it provided a logistic and financial nightmare for TIP. The final set of groups that were selected met some of the criteria in terms of crops and areas with market potential, but as a consequence, TIP had only a few groups with members who fit the criteria of coming from poorer households.

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<sup>8</sup> Political divisions in Tanzania, starting from the regional level (i.e., Kilimanjaro or Arusha region) to smaller political units, include: District – Ward – Village – Hamlet – Ten Cell (i.e., blocks of ten households in the hamlet).

FAIDA also had to struggle over the selection process with the government authorities in Hai district. In this case, the District Office decided that AMSDP would be a good follow up project to the Participatory Agricultural Development Project (PADEP), another government-led project that was currently operating in the district. From 2002 to 2006, PADEP established a number of village-level producer groups and provided production-oriented trainings, along with two years of agricultural input loans. PADEP also carried out some infrastructural improvement projects at the village level, dealing mostly with repairing traditional irrigation schemes. Given the fact that PADEP was production-related and AMSDP was market-oriented, it seemed to be an excellent match. Logistically, it would also be easier to conduct training activities since most of the farmer groups were located in just four villages. The problem for FAIDA was that these groups had little potential in terms of marketable crops, and most of these villages were not located in areas with the appropriate agro-ecological conditions or proper infrastructure that would attract agricultural companies. These circumstances made it difficult for FAIDA to exploit its greatest strength – its wide network of agricultural companies willing to do business with smallholder farmers.

### **Selected Farmer Groups**

For the first year of the project, TIP worked with 18 groups and FAIDA worked with 20 groups.<sup>9</sup> In TIP's case, only two groups were located in the same ward, whereas FAIDA had 16 out of its 20 groups located in four villages. Table 2-1 shows group size and composition that FAIDA and TIP worked with at the beginning of the project. These groups provided the interview sample for this study.

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<sup>9</sup> My study sample includes only 16 of the 20 FAIDA groups participating in AMSDP. Two groups were omitted because they were trader groups (i.e., businessmen and businesswomen engaged in trading, and not farming, as their primary livelihood) and did not share enough similarities with the other farmer groups to make intra- and inter-group comparisons valid. The two other groups were not included because they declined to participate in the study.

Table 2-1. Size and composition of TIP and FAIDA groups

	FAIDA	TIP	Sample total
Sample size	16	18	34
Newly formed groups	5	9	14
Existing groups	11	9	20
<u>Combined groups</u>			
Newly formed	5	6	11
Existing	4	1	5
<u>Group level</u>			
Village	16	9	25
Ward	0	9	9
<u>Age of groups (years)</u>			
Mean	4.7	3.5	4
Range	2 – 16	2 – 8	

Due to the PADEP project, FAIDA was working with groups that had already been established. But, five of the PADEP groups were formed only months before FAIDA entered. Thus, even though PADEP and FAIDA were working at the same time, almost all the group capacity training responsibilities were relegated to FAIDA. For TIP, nine of the groups were newly formed, while the other nine groups existed prior to program and consisted mostly of village level groups chosen to represent the ward. There were also a number of farmer groups that were combinations of smaller groups, as shown under the “combined groups” heading in Table 2-2. The “existing groups” under this heading were smaller groups that came together on their own accord to increase scale and access to service providers. There were also a number of combined groups that were specifically brought together by the PAs, which is represented in the table by “newly formed” groups. Over half of the FAIDA groups (56%) were a combination of smaller groups, whereas this represented seven of the TIP groups (39%). Also, both FAIDA and TIP worked with relatively “young” groups, with an average age of 4.7 and 3.5 years, respectively.

Table 2-2 shows the membership of these groups disaggregated by the sex of the members. Within the study sample, 16 of the FAIDA groups had a total of 507 members and TIP worked with 18 groups that totaled 678 members.

Table 2-2. Group membership by partner agency and sex

Members by sex	FAIDA	TIP	Total
Females	277	272	542
Males	230	406	636
Total	507	678	1,185

In terms of gender, more than half of the members in the FAIDA groups are female. The higher number of female membership can be explained by the fact that three of the FAIDA groups were female-only groups. As for TIP, it worked with one female-only group and males tended to dominate more of the membership in the other groups. This is reflected in the table where 406 out of 678 (60%) of the members are men. Neither FAIDA nor TIP worked with any male-only groups.

### **Demographic Characteristics and Farming Systems of Farmer Group Members**

Out of the 1,185 farmer group members, a sample of 388 members was given self-administered questionnaires, with 189 members from FAIDA and 199 members from TIP. The sample represents 33 percent of group members (see sample methodology in chapter 3). The questionnaire included demographic information in such areas as education, ethnicity, age, and religion. The demographic data collected from the 388 group members who filled out the questionnaire are represented in the following tables. Table 2-3 shows members by years of schooling for each of the PAs. To achieve a basic level of math skills and literacy in Swahili, most school children need to complete at least 4 years of schooling. Literacy is high in the regions of Arusha and Kilimanjaro and within the districts of Hai and Arumeru. In Arumeru district, adult literacy stands at 79 percent (84% for males and 74% for females) and the rate in Hai district is 86 percent (89% for males and 83% for females). The study sample reflects an even higher rate, with roughly 92 percent literacy among the group members working with FAIDA and TIP.

Table 2-3. Years of schooling of producer group members

Years in school	FAIDA	TIP	Total
0	16	6	22
1 - 3	4	4	8
4 - 7	143	144	287
8 - 11	22	42	64
12 - 13	4	3	7

There are some differences when comparing FAIDA and TIP group members. Members from FAIDA groups have more illiterate members and fewer members with secondary education (eight years of schooling or more). Approximately 11 percent of FAIDA group members are illiterate compared to only 5 percent for the TIP group members. Likewise, TIP members have achieved higher levels of education, with 23 percent of TIP members achieving at least 8 years of schooling and a few members completing advanced secondary school levels. FAIDA also had a few members complete advanced secondary school, but overall had significantly less members with secondary education, with only 14 percent of its members with 8 years of schooling or higher.

Table 2-4 shows the religious affiliations of the members of the FAIDA and TIP groups. The majority of the members of both groups are Christian. FAIDA is also working with the majority of Muslim members represented in the study sample. Neither TIP nor FAIDA worked with groups that had exclusively Muslim members, but 16 out of the 18 TIP groups were exclusively Christian. FAIDA worked with primarily mixed groups, which included five Muslim-majority groups and eight Christian-majority groups. In Hai District where FAIDA is working, it is common for villages to have a mix of both Christians and Muslims and there appears to be little animosity or conflict occurring along religious lines. As this study sample shows, it is also very common for groups with mixed-religious backgrounds to cooperate and engage in collective action initiatives.

Table 2-4. Major religious affiliations of producer group members

Religious affiliation	FAIDA	TIP	Total
<u>Religion by members</u>			
Traditional	5	0	5
Muslim	67	9	76
Christian	117	190	307
<u>Religion by group</u>			
Muslim-majority	5	1	6
Christian-majority	8	1	9
Evenly-mixed	1	0	1
Christian-only	2	16	18
Muslim-only	0	0	0

Table 2-5 shows the age of the FAIDA and TIP group members. The majority of members for both PAs are in the age range of 40 to 49 years, which makes up 34 percent of the total membership sampled in this study.

Table 2-5. Age range of producer group members

Age range	FAIDA	TIP	Total
20 – 29	18	13	31
30 – 39	41	62	103
40 – 49	60	72	132
50 – 59	38	34	72
60 – 69	22	14	36
70 and older	10	4	14

Both PA groups also compose a fair portion of “younger” members, with 31 percent of FAIDA group members and 38 percent of TIP group members under the age of 40.

Table 2-6 shows the major ethnic affiliations by PA groups. The overwhelming majority (70%) of FAIDA group members are Chaga, whereas the Meru peoples make up a slight majority of TIP group members at 53 percent. The Chaga are the dominant ethnic group in the Kilimanjaro region and the Meru and Arusha peoples make up the dominant ethnic groups in the Arusha region.

Table 2-6. Major ethnicity of producer group members

Ethnic group	FAIDA	TIP	Total
Arusha-Masai <sup>10</sup>	17	63	80
Meru	3	106	109
Chaga	132	14	146
Pare	23	4	27
Others	14	12	26

The greater ethnic diversity within the TIP groups can also be attributed to the fact that Arusha city is near the project area and it has for sometime attracted people from all over Tanzania seeking work opportunities, particularly in the tourist service sector, tanzanite mining, and agro-industries (e.g., sisal production in the past and cut flower production more recently).

Table 2-7 provides a breakdown of the commodity types by PA farmer groups. Commodity types refer to the crops or livestock that group members grow and were put forward as possible commodities to promote as a viable agro-enterprise. The commodity types also represent most of the existing farming systems located in the study area. The cereals/legumes category typifies a mixed-farming system with corn intercropped with legumes, such as beans or pigeon peas. Many of the farmers in this system also plant sunflower as a windbreak, as well as for cooking oil for home consumption.<sup>11</sup> This farming system is generally located on the lower slopes and plains surrounding Mt. Meru and Mt. Kilimanjaro.

<sup>10</sup> As shown in Table 3-6, I have placed the Arusha and Masai under one category. Even though these are in fact two distinct ethnic groups, their histories and cultural heritage share a great deal in common. The Arusha peoples are farmers who have been cultivating the slopes of Mount Meru for over two centuries; the Masai peoples are cattle pastoralists living on the plains of northern Tanzania and western Kenya. Over the generations, these ethnic groups have developed an interdependent relationship that has helped them cope in times of crises (i.e., drought periods, disease epidemics, civil strife). Many Arusha have depended on the Masai for cattle and protection from marauders, and the Masai have often counted on the Arusha for foodstuffs during times of drought and livestock disease. These economic and social interdependencies, as well as the exchange of cultural customs and rituals (mixed marriages, age groups, rites of passage, etc.) have blurred the lines of ethnic distinction. This is particularly true when it comes to “settled” Masai that now make their livelihood primarily from farming. There is little difference between these Masai and the Arusha peoples. These are the peoples in my study and the reason that Arusha-Masai is one ethnic category only. A more detailed account of the relationship between the Masai and Arusha peoples can be found in Spear (1997).

<sup>11</sup> In most cases, farmers take the sunflower seeds directly to a processor, who will charge them to process the seeds into cooking oil for home consumption. Any surplus seeds not needed for home consumption are usually sold to traders or wholesalers at farm-gate prices.

Table 2-7. Commodity types by PA farmer groups

Commodity types	FAIDA groups	TIP groups	Total
Cereals/Legumes	9	5	14
Vegetables/Fruits	5	5	10
Rice	1	1	2
Coffee	0	3	3
<u>Livestock</u>			
Dairy (cows)	1	3	4
Chickens	0	1	1

The vegetable/fruit category typifies a mono-crop horticultural farming system wherein these crops (e.g., tomato, cabbage, carrot, onion, lettuce, cucumber) are grown in individual plots that often utilizes canal irrigation s, and in a few cases spray irrigation. This farming system is generally located on lower to mid-level slopes of the mountain ranges. The coffee category is another mixed farming system where coffee is intercropped with “cooking” bananas, which provide shade for the coffee and also are used for income and home consumption purposes. The coffee/banana farming system is located on the upper slopes of Mt. Meru and Mt. Kilimanjaro. The rice category represents a mono-crop farming system of paddy-rice that utilizes canal irrigation schemes. This farming system is located on the lower slopes of the mountain ranges, but few farmers in this study sample or study area are involved in this farming system. The livestock category complements the other farming systems as a way to supplement income and home consumption needs.

Returning to Table 2-7, the majority of the FAIDA groups belong the cereal/legume farming system. Both TIP and FAIDA have five groups each that are involved in vegetable production, as well as one group each involved paddy-rice production. Also, three TIP groups belong the coffee/banana farming system. The PA group differences in commodity types and farming systems are largely due to the selected project areas. On one hand, Hai District where FAIDA works is located on the plains and lower slopes between Mt. Meru and Mt. Kilimanjaro, which explains the greater number of cereal/legume farming systems. On the other hand,

Arumeru district where TIP works is situated along the slopes of Mt. Meru, which explains the greater diversity of farming systems (i.e., rice and cereals/legumes on the lower slopes; vegetables/fruits on the mid-level; and coffee/banana on the higher slopes).

### **The PA Training Activities for Farmer Groups**

When the PAs were first contracted to train farmer groups, there were few guidelines from AMSDP. Thus, each PA was given a certain level of flexibility to decide the subject content and how to conduct the different training activities. Nonetheless, FAIDA and TIP had more similarities than differences in their training content and style. There were a number of training activities that can be classified as group strengthening training. Although the timing or grouping of these training activities may have differed, essentially both PAs covered the following subject areas with their farmer groups:

- Group registration
- Communication and group dynamics
- Group record keeping
- Leadership
- Administrative and financial management
- Setting up bank account
- Establishing action plans
- Establishing savings and credit cooperatives

Each PA also provided business awareness and marketing skills training that included such topic areas as:

- Farm record keeping
- Cost-benefit analysis
- Accessing market information
- Negotiating prices
- Choosing an enterprise and finding potential markets/buyers.
- Contract farming

Beyond these training activities, each PA also arranged study tours for group representatives to visit farmer-formed saving and credit cooperatives (SACCOs). Some of the groups also had the

opportunity to go on production-related study tours to visit other farmers growing a particular crop with market potential or to visit agriculture research institutes to get training on modern farming/livestock techniques.

There were also a number of training activities that each PA did that were different from each other. For example, TIP incorporated training activities that covered important social issues, such as gender, HIV/AIDS awareness, and environmental conservation. TIP also included a two-day training activity on participatory market research visits where group representatives had the opportunity to visit area food markets and supermarkets and talk to a range of other chain actors, such as wholesalers, brokers and retailers. Contacts were established with these chain actors and TIP used these meetings to encourage the farmer groups to seek market information through these new contacts.

FAIDA also had a few training activities that differed from TIP. Notably, FAIDA allocated more training time to developing higher-tier, or apex, organizations among the groups located in the same village. This was done to get groups to form a savings and credit cooperative to serve the groups, as well as other village members. FAIDA also had a different strategy for improving the farmer groups' access to market information. Due to the concentration of groups in Hai district, AMSDP instructed FAIDA to set up market information boards in each village by which weekly information of the major commodities from the local markets could be posted. FAIDA encouraged all groups to fund the construction of these boards, and after a few months of collecting the requisite money, market information boards were erected in the four villages where the majority of FAIDA groups were located.

### **Study Entry Point**

Field research for this study began in April 2005, a year after the start of AMSDP. According to the program plans, each PA should have finished the training activities and market

linkages with the first round of 20 producer groups and started the selection process with the next 20 groups. This was far from the case as FAIDA and TIP were still conducting group capacity training and had made only a few market linkages. There are a variety of reasons for this but a notable one involved conflicts with the District Offices over budgetary issues. On a quarterly basis, the District Office approved the PA's budget for its next quarter of work with the producer groups. There was much disagreement between the PA and District Offices over what activities should be done and on how much these activities should cost. On several occasions, both PAs stopped working with their groups because the District Offices would not approve their budgets. One such occasion occurred at the beginning of this research in January 2005. The issue was not resolved for two months, and PA activities only resumed the middle of April.

Once the program resumed, the author began to accompany the PAs to the field to observe the implementation of the training activities. FAIDA had finished most of its group strengthening and marketing skills training and was focusing on establishing saving and credit cooperatives (SACCOs). This included training the group members on organizational and financial management skills, as well as holding an additional training for group leaders on how to formulate an apex organization for the purposes of setting up village-based SACCOs.

TIP had also finished most of its group strengthening and marketing skills training and was proceeding with the participatory farmer market research activity. It was also undertaking training and study tours of SACCOs. Observing the training activities was an opportunity to see how each PA operated in regard to its training and management style, as well as a means of being introduced to many of the groups whom would be interviewed later.

The next chapter introduces the research methods of this study. This includes discussions on the overall research design, study time-frame, data collection methods, sample representation,

operational definition of the primary dependent variable – group marketing performance – as well as definitions and values for independent variables that can affect a group’s ability to improve its market situation.

## CHAPTER 3 RESEARCH METHODS

This chapter examines the Sustainable Livelihoods Approach (SLA) as a basis for the development of a conceptual model – specific to this study – to understand and analyze the planned change initiative. After presenting this conceptual model, the chapter continues with a discussion of the research design. A description of the data collection methods and study sample follows. The rest of the chapter is concerned with developing the operational definitions and values for the dependent variable – group marketing performance – followed by the description and values of the independent, or explanatory, variables. The chapter concludes by revisiting the research objectives and matching the hypotheses with the appropriate explanatory variables.

### **Sustainable Livelihoods Approach**

The Sustainable Livelihoods Approach (SLA) provides an analytical framework to study a planned change process, such as in the case of this study where AMSDP is attempting to improve the market situation for smallholder farmer groups. The foundation of SLA is built upon the insights and years of experience gained in the field of participatory development (Chambers & Conway, 1991; Chambers, 1997; Ashley & Carney, 1999). The approach is based on a core set of principles; development should be people-centered, holistic, dynamic, built on people's strengths, and sustainable (Ashley & Carney, 1999, p. 7). As defined by Chambers & Conway (1991, p. 6), "a livelihood comprises the capabilities, assets (stores, resources, claims and access) and activities required for means of living." The SLA framework provides a wide enough scope of analysis to capture both micro-level change processes and the larger structural, environmental and institutional conditions but it never loses focus on one thing – how change processes impact local peoples' livelihood systems. As a framework of analysis, SLA highlights five elements for understanding rural people's livelihoods by investigating the:

- structural and environment conditions and trends (i.e., demography, history, macro-economic conditions, agro-ecology, politics, etc.);
- livelihood assets available (i.e., social, human, financial, physical and natural capital);
- institutional processes and organizational structures that influence access to livelihood resources;
- livelihood strategies employed given the structural and institutional context and
- likely sustainable livelihood outcomes and tradeoffs based on the strategies employed (Scoones, 1998, p. 6).

Figure 3-1 illustrates the key elements of the SLA framework (Ashley & Carney, 1999, p. 47).

**Livelihood assets.**<sup>12</sup> Within the context of this study, farmers are in possession of certain livelihood assets that help them meet their livelihood objectives. These are conceptually broken down into five “capitals” that taken as a whole constitute the configuration of livelihood assets available to the farm family to meet their practical and strategic needs.

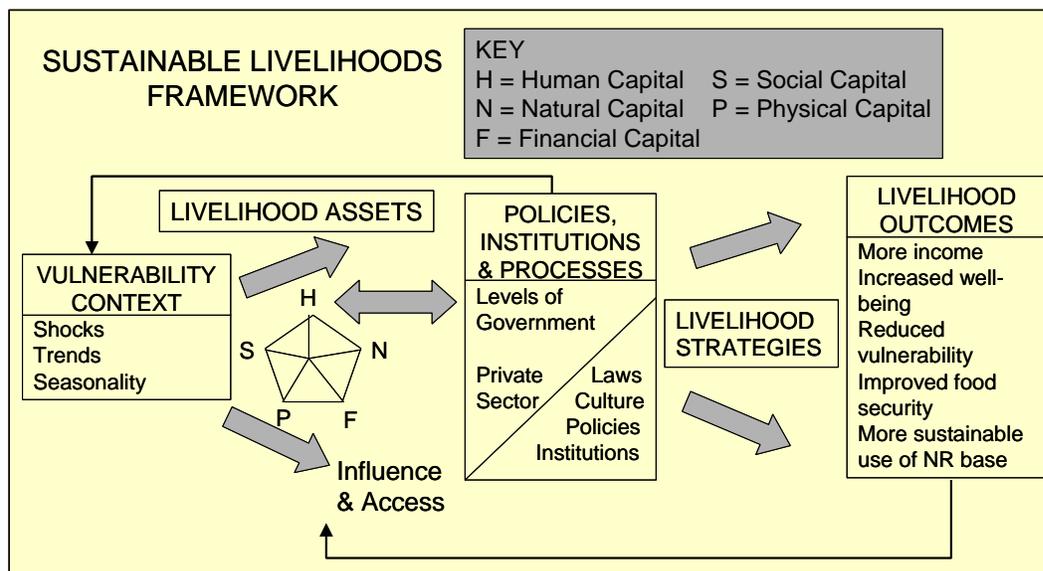


Figure 3-1. Sustainable livelihoods framework

*Natural capital* is defined as the resource stocks from which resource flows and services useful for livelihoods are derived. Examples of natural capital include: amount of cultivatable

<sup>12</sup> Except where otherwise noted, the definitions and examples of livelihood assets were adapted from Scoones (1998, pp. 7-8).

land; land use and tenure (i.e., owned, shared, communal, rented, usufruct rights); land characteristics (i.e., soil fertility, erosion, topography, and other agro-ecological features); ownership/access to other natural resources (i.e., forests, water, wildlife, etc.).

*Physical capital* is the basic infrastructure and producer goods needed to support livelihoods and include: shelter and housing; farm implements and tools (e.g., hoes, plows, tractors, etc.); processing machines; storage facilities; pumps and latrines; transportation (e.g., bicycles, carts, trucks, etc.); and other “wealth” items (radio, television, gas stoves, etc.).

*Financial capital* is defined as financial resources that people use to achieve their livelihood objectives, including flows and stocks that contribute to consumption as well as production. This includes: savings in the form of liquid assets (e.g., livestock, jewelry, etc.); bank deposits; cash; pensions and other state transfers; and remittances.

*Human capital* refers to the skills, knowledge, ability to labor and good health that together enable people to pursue different livelihood strategies and achieve their livelihood objectives. This includes: household composition and life cycles that determine producer to consumer ratios of available labor; indigenous knowledge and farming expertise; formal education, including literacy, numeracy; marketing skills and market knowledge (e.g., access to marketing information on quantity and quality standards, price information, and existing and emerging market opportunities).

*Social capital* is defined as an “investment in social relations by individuals through which they gain access to embedded resources to enhance expected returns of instrumental and expressive actions” (Lin, 2001, p. 18). Social capital is distinguished between the cognitive and structural forms. Cognitive social capital deals with group attributes of trust, norms, attitudes, and shared values (Uphoff & Wijayarathna, 2000, p. 1876). The structural forms of social capital

are distinguished further between bonding and bridging social capital. Bonding social capital is defined as “expected returns of expressive actions for preserving or maintaining resources” and bridging social capital is defined as the “expected returns of instrumental actions for searching for and obtaining resources” (Lin, 2001, p. 18). Examples of bonding social capital include: membership in groups within a community (i.e., producer groups; processing groups; labor sharing groups; rotating credit and savings associations); and farmer personal networks with a high number of intra-community ties that are more horizontal in nature. Examples of bridging social capital include: membership in groups and farmer personal networks with more extra-community ties, such as relationships with service providers (i.e., local government ministries and NGOs) and agribusiness partners.

**Impact of institutions, policies, and processes.** These livelihood assets interact with policies, institutions, and processes in influencing livelihood strategies and alternatives. The market is one of the critical institutional site that influences and directly impacts livelihood alternatives. Thus, is particularly important to study both the institutional environment (e.g., government policies on land tenure) under which farmers must operate and the specific institutional arrangements (e.g., contract farming) that impact farmers’ access to key livelihood assets.

**Context of vulnerability.** Vulnerability refers to things outside people's own control. SLA highlights several broad areas under the vulnerability context which must be given due consideration. The vulnerability context includes:

- trends in population, resources, economic indicators like prices, governance, or even technology;
- shocks like changes in human or animal health, natural disasters, sudden economic changes, or conflict; and
- seasonality in prices, agricultural production, employment opportunities, resource availability, or health (Scoones 1998, pp. 6-7).

**Livelihood outcomes and strategies.** With specific mention to the project under study, there are two objectives (livelihood outcomes) that should be achieved through greater market access for smallholder farmers. These are increased incomes and food security. While these are the explicit objectives, the project also expects that these livelihood outcomes to be sustainable. Sustainability is a fundamental component of the SLA framework and takes on a specific meaning. As defined by Chambers & Conway (1991, p. 6), “a livelihood is sustainable when it can cope with and recover from stresses and shocks, maintain or enhance its capabilities and assets, and provide sustainable livelihood opportunities for the next generation.”

**Understanding SLA within the study context.** Through the lens of a livelihoods approach, AMSDP is attempting to improve the marketing performance of smallholder farmers by enhancing their stock of human and social capital. Providing skills training in marketing and entrepreneurship increases farmers’ human capital, whereas linking these groups to others in the market chain forges new business partnerships thereby enhances their social capital. AMSDP expects that these asset-enhanced farmer groups will carry out collective action initiatives to improve their marketing performance. This, in turn, should lead to improved livelihood outcomes, such as higher sales from existing or new products, more reliable markets, more steady and regular income, better access to affordable inputs, as well as in the longer term, greater food security. Of course, the success or failure of any collective action initiative is never entirely determined by the farmers groups’ actions alone. Therefore, due attention must be given to the policies, institutions, and process, as well as to the external infrastructural environment – from a cultural materialist perspective - to discern the extent that these factors will impede or enable successful collective action outcomes.

## Conceptual Model for Study

A conceptual model was developed to understand and explain the flow of the planned change process under study. The model borrows from the SLA framework and utilizes the terminology and perspectives of cultural materialism. By including certain factors under the infrastructure and social structure, the model tries to separate and analyze the determining factors from the enabling or constraining factors that affect group marketing performance. As represented in Figure 3-2, the wider and determinate infrastructure encapsulates this planned changed initiative and includes such factors as the smallholder groups' farming systems, the agro-ecological conditions under which they must work, and their physical access to markets (e.g., distance to markets, access to feeder roads, conditions of roads, etc.).

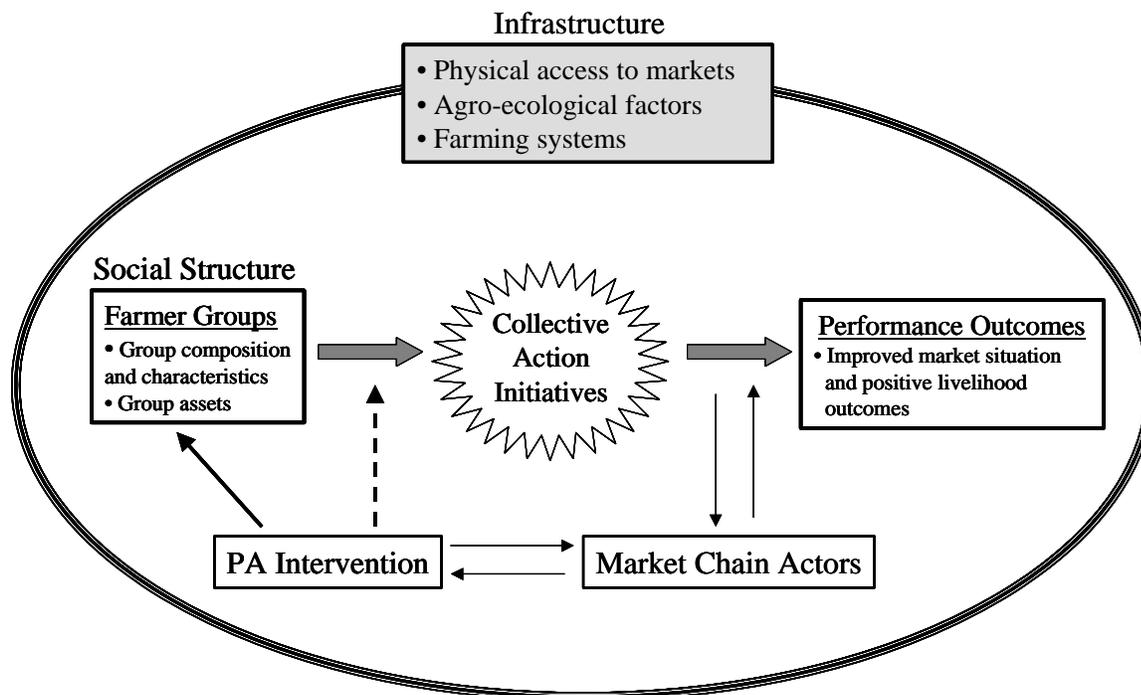


Figure 3-2. Conceptual framework for research study

Farmer groups are represented under the social structure and this includes a number of factors that will affect a group's ability to enact successful collective action initiatives (i.e., the

group's asset configurations, composition and characteristics). PAs are intervening to enhance human capital in form of marketing skills, business acumen, and other group capacity trainings, which is represented by the solid line going from the PA directly to the social structure. Along with these training activities, the PAs are also providing some groups with market linkages to other chain actors and this is represented by the dotted line going to the collective action initiative, as well as the lines connecting PA intervention to market chain actors. Farmer groups are also carrying out collective action initiatives without direct linkages from the PA, which is represented by the lines connecting the collective action initiatives to the market chain actors. The performance outcomes represent the extent that groups have improved their market situation and affected positive livelihood outcomes to the members of their groups. Using this conceptual model as a guide for understanding the change process, we can now turn our attention to the overall research design of this study.

### **Research Design**

This study is similar in the methodological approach of action-oriented research. Bogdan & Biklen (1982) define action research as “the systematic collection of information that is designed to bring about social change” (*quoted in* Merrigan & Huston, 2004, p. 26). The research design was constructed on the premise that the findings would prove useful to other study stakeholders, particularly for FAIDA and TIP as the two implementing partners of AMSDP. Through the course of this study, particular efforts were taken to provide FAIDA and TIP feedback on emerging findings. The programmatic recommendations in the last chapter were also specifically tailored to NGOs, like FAIDA and TIP, engaged in agro-enterprise development initiatives. As such, this study most resembles an impact assessment, which is one of the more comprehensive types of action research utilized by researchers and practitioners in the field of development (Lilja & Johnson, 1999). Impact assessments are results-oriented and

typically divided into short-term *outputs*, intermediate-term *outcomes*, and long-term *impacts* of the project in question. Observing over a year of the project work cycle allowed reporting on some of the short-term outputs and intermediate outcomes of the project. If the expected long-term impact of AMSDP is sustained increases in incomes and food security, it is proposed that the primary outcome (intermediate result) of training and market linkages is an improvement in farmer group marketing performance.

To assess the effect of the intervention on producer group outcomes, pretest-posttest research design was utilized (Johnson, 1998, p. 149). The pretest observations (i.e., the first round of interviews) were undertaken as the groups were undergoing training from the PAs. Six to eight months later at the conclusion of the intervention, the same groups underwent posttest assessment (i.e., the second round of interviews) to ascertain any changes in their market situation. Because the study did not start before the intervention, considerable time was spent during the first interview to assess a group's baseline position on marketing and to allow sufficient room for the group to comment on how the intervention had changed or had not changed its market situation.

### **Data Collection Methods**

A mixed-methods approach (Marsland et al., 2000) was utilized for this study by employing the following qualitative and quantitative data collection methods:

- **Document analysis** of the project materials that included participatory rural appraisals (PRAs) on the farmer groups and villages/wards; market analysis studies of the study area; and quarterly reports submitted to AMSDP on the progress of the interventions.
- **Key informant interviews** with PA management and field staff, District officials and field officers (e.g., agricultural/livestock extension and marketing/community development workers), and with elected and traditional village leaders.
- **Participant observation** of PA training activities with their respective farmer groups

- **Semi-structured interviews** with 34 producer groups. Two rounds of interviews were conducted six to eight months apart. The content of the *first group interview* included: background history and baseline information on the group; recent activities within the group and with other service providers; participatory evaluation of AMSDP; marketing obstacles and opportunities; and future plans for the group. A participatory market chain analysis activity was also carried out with several of groups to identify the marketing channels of the major commodities in the study area. An experimental economics game was also played with all the groups.<sup>13</sup> The content of the *second group interview* focused primarily on questions and conversations to assess each group's progress in accomplishing their short-term goals and improving their market situation. The second interview also provided an opportunity to fill in the gaps missed in the first interview.
- **Self-administered questionnaires** were also included with the first round of interviews in order to collect quantitative and qualitative data on individual members. Individual data were collected on 381 members – 182 participants from FAIDA groups and 199 participants from TIP groups. Much of these individual-level data were later aggregated to the group-level in order to assess group characteristics that may play a role in improving their market situation.<sup>14</sup>

### Study Time Frame

TIP and FAIDA officially started their component of the intervention in January of 2004. This study began in April of 2005, roughly a year after the farmer groups had been selected to participate in AMSDP. In the year prior to the commencement of this study, FAIDA and TIP had already conducted most of their group strengthening and marketing skills trainings. During this same time period, both TIP and FAIDA had also linked several groups to other market chain actors, a practice they continued while this study was underway. The study started by joining TIP and FAIDA to the field to observe some of their remaining group training activities. After observing these trainings, a first round of group interviews was conducted, which were then followed up with a second round of group interviews roughly six months later. The last of the

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<sup>13</sup> The experimental economic game played with the groups is called the Public Goods Game (PGG) and it is explained in greater detail later in this chapter.

<sup>14</sup> The questionnaire was translated into Swahili, which is the language of instruction in primary schools in Tanzania. Illiterate members, whom there were only a few, were assisted either by my research assistant or by another group member. For the English version of the questionnaire, see Appendix A.

group interviews concluded in late May of 2005. Thus, from start to finish this study recorded roughly a year of the project intervention.

### Sample Groups

As illustrated in Table 3-1, the sample for this study is comprised of 34 groups with a mean group size of 35 members. FAIDA groups have more females than TIP groups, as three out of the four female-only groups in this study are working with FAIDA.

Table 3-1. Group study sample

	FAIDA		TIP		Sample total	
	N	%	N	%	N	%
Sample size	16		18		34	
<u>Size of group</u>						
Mean	32		38			
Range	15 – 40		20 – 150		35	
<u>Membership by sex</u>						
Female	277	55%	272	40%	549	46%
Male	230	45%	406	60%	636	54%
Total membership	507		678		1185	
<u>Members sampled by sex</u>						
Female membership sampled	105	56%	68	34%	173	
Male membership sampled	84	44%	131	66%	215	
Total membership sampled	189	37%	199	29%	388	33%

In terms of membership sampled, 37 percent of all the group members working with FAIDA and 29 percent of all the group members working with TIP participated in the first round of interviews. Thus, the total study sample represents 33 percent of all group members. These group members attended the group interviews and filled out questionnaires about themselves and their households. In terms of gender representation, FAIDA groups were well represented with female members representing 56 percent of the total sampled, but TIP group were slightly under represented with the total membership of women at 40 percent and the female membership sampled at 34 percent.

The study relied on a convenience sample of the group members. When requesting the interview, each group leadership was asked to invite roughly 10 to 12 members and to make sure that both male and female members were invited. The method of invitation employed by group leaders was inquired during the meeting. One of three answers was usually given. In the most common pattern (46% of groups), all members in the group were invited, with those in attendance at the meeting dependent on individual availability. The second most frequent response (31%) was that active members – those who can be counted on to show up at meetings – were invited to come to the meeting. The third reason (23%) given was that representatives were chosen to attend the meeting. This was most often the case with groups formed at ward level that consisted of smaller groups, or with larger groups that had sub-committees or sub-groups that were chosen to represent their particular constituency.

#### **Dependent Variable: Marketing Performance Rating**

As the primary dependent variable of this study, a marketing performance rating (MPR) was constructed to ascertain the extent to which the groups showed any concrete signs that their market situation had improved through the project intervention. Each group was given a marketing performance rating ranging from 0 to 2, with 0 signifying no improvement, 1 signifying some improvement, and 2 signifying large improvement in their market situation. The MPR scale was established in the following manner:

**No improvement.** Groups were given this rating if, from their own admission, they felt that the project intervention had led to little meaningful improvement in their market situation. Some groups did feel that the training activities were beneficial to them and that given the right circumstances, they could use these trainings to improve their situation. However, by the end of the study and project cycle, none of these groups could provide concrete examples of such trainings making a difference in their market situation.

**Some improvement.** Groups were given this rating by showing that they had the ability to take the training activities and successfully put them into practice. Such groups were able to provide concrete examples of how their market situation had improved from participation in the project. Examples included: increased sales and higher prices for existing products; more reliable sales markets through enhanced relational or formal contract farming arrangements; diversification into higher value crops, increased access to market information and bargaining power; getting involved in post-harvest value adding activities; participation and increased profits by involving themselves in more chain management activities.

**Large improvement.** A few groups showed the ability to improve their market situation and did this at a level of success that separated them from the other groups. In most cases, these groups showed striking market improvements by initiating several collective action initiatives. As an example, one group shifted their production to more profit-making enterprises, shortened the market chain between the group and retailers by taking over transportation activities, and entered into farming contract arrangements with an agribusiness – all of which has led to increased incomes and a more reliable market for their crops. A complete list of the collective action initiatives enacted by groups to improve their marketing performance will be provided in the study findings.

### **Explanatory Variables**

Improved marketing performance is an outcome of a number of endogenous and exogenous factors. The following covariates of MPR were identified *a priori* based on the literature reviewed previously. The following tables show a list of explanatory variables delineated into five headings: group assets; group composition; group characteristics; group heterogeneity; and market access. In most cases, the following tables of explanatory variables

provide adequate description and values, but there are some variables that require further explanation.

### **Group Asset Variables**

Table 3-2 provides a description and value for a number of explanatory variables dealing with livelihood assets that may affect a group's ability to improve its market situation. The physical and natural assets include the variables: group wealth ranking; reliable water source; and land. The social capital assets are delineated by cognitive and structural forms, and include: group trust; group altruism; community leaders; and providers/partners.

**Group wealth ranking.** Wealth ranking techniques have been widely used in social science research for assessing household and individual wealth, especially when it is difficult to obtain income and expenditure data (Spring et al., 1996; Brandt & Spring, 1998; Grandin, 1998). A number of studies comparing wealth ranking techniques to income, expenditure, and other wealth-related data have proven these techniques to be a reliable and valid way to measure wealth (Adam et al., 1997; Temu & Due, 2000). This ranking was established by aggregating individual's wealth ranking to the group level. Individual wealth rankings were modeled after those established in a joint World Bank and Government of Tanzania study (Narayan, 1997) that utilized a number of participatory approaches for establishing regional wealth rankings for all of Tanzania, which included the regions of Arusha and Kilimanjaro. This provided the foundation by which further details were added based on discussions with test-pilot groups and crosschecked with key informants.

Table 3-2. Group asset variables by description and value

Explanatory variables	Description	Value
<i>Physical and natural assets</i>		
Group wealth ranking	Aggregated score taken from individual group members based on household ownership of physical, natural and financial assets	<u>Ordinal/Interval</u> 1 = very poor 2 = poor 3 = average 4 = rich 5 = very rich
Reliable water source	Majority of group members having access to reliable water source	<u>Nominal</u> 0 = No 1 = Yes
Land	Aggregated and average score taken from the total amount of land (owned and rented) by group members	<u>Interval</u> Number of acres
<i>Social capital assets</i>		
<u>Cognitive social capital</u>		
Group trust	Three questions concerning trust aggregated to provide three group scores	<u>Ordinal/Interval</u> Scores between 1- 3 Higher the score, higher the trust
Group altruism	Group score based on playing the Public Goods Game (PGG)	<u>Interval</u> Score between 0.46 - 1 Higher the score, higher the altruistic behavior
<u>Structural social capital</u>		
Community leaders	Group members that are also elected or traditional leaders within their community	<u>Interval</u> Percentage of members interviewed that are community leaders
Providers/Partners	Service providers and other partners that group has worked with and/or currently working with	<u>Interval</u> The total number of providers divided by number of years of group's existence Score between 0.44 - 2
Other groups	Membership in other agriculture and development-oriented groups	<u>Interval</u> Total number of ties to other groups

One particular area of depth that was added was the development of a material asset index. The first step was asking the participants to circle all items owned by their household from a pre-defined list. Items were chosen for the questionnaire that could be used to improve farm productivity (i.e., hand hoe, oxen plough, processing machine, and tractor) and marketing (i.e., bicycle, cart, motorcycle, car, truck, radio, mobile phone, and television). Using Anthropic (Borgatti, 1992) for the analysis of unidimensionality, a Guttman scale was established to assess and assign material wealth (Guest, 2000). Eight household items (hand hoe, radio, bicycle, cart, oxen plough, mobile phone, television, processing machine) produced a high unidimensionality score with a coefficient of reproducibility (CR) of 0.95 and coefficient of scalability (CS) of 0.62. These scores strongly indicate that all items are a composite measure of one underlying concept (Bernard, 1995).<sup>15</sup> A material asset index score (1 to 8) was then assigned to each group member. The material asset index score along with further considerations, which is shown in Appendix B, were used to assign each group member a final wealth ranking score from 1 to 5.

**Reliable water source.** Each group was assigned a score of 0 or 1 based on group's access to a reliable water source. This was ascertained by individual members' answers to the self-administered questionnaire, field observations, and discussions with group members and key informants. In most cases, a reliable water source meant that majority of group members had access to irrigation for their crops, or where groups felt that they could rely on the rainfall, as was the case with two groups in high elevation and precipitation areas.

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<sup>15</sup> The coefficient of reproducibility (CR) is a measure of the unidimensionality of the items in a scale. By convention, a CR of 0.90 or higher is accepted as evidence that a set of items have scaled unidimensionality (Guest, 2000, p. 350; Bernard, 1995, p. 296). There is, however, one problem with the CR. A high CR is "sensitive to extreme marginal distributions in terms of both items and individuals so that a high CR can be achieved even in random data" (Guest, 2000, p. 351). In order to deal with extreme responses, Menzel (1953) developed the coefficient of scalability (CS), which can be interpreted as a proportion reduction in error (PRE) statistic. To the extent that the scale has fewer errors than expected by chance, the CS moves toward 1.0. Although there is no definitive score, CS of 0.60 or higher is generally considered an acceptable level of error (Guest, 2000, p. 351).

**Group altruism.** Each group member was assessed on whether she or he exuded more self-interested or more altruistic behavior toward the rest of the group. This individual assessment was then aggregated to the group level to get a group altruism score. To assess various levels of individual altruistic behavior, each group played a one-shot Public Goods Game (PGG). The PGG is well known within the field of experimental economics and has been applied in several cross-cultural studies (Gurven, 2004; Henrich, 2000). In this adaptation of the PPG, each group member is given ten tokens (square pieces of paper) each worth 50 Tanzanian Shillings (*TShs*), thus totaling *TShs* 500 (or the equivalent of US\$0.40). Each member is given the option of contributing none, some, or all her/his money to the group fund. Any money that is contributed to the group fund will be doubled and then shared equally among all members. To clarify the possible outcomes, three scenarios are explained to the group: (1) all contribute everything to the group fund, and thus double their money with each member getting back *TShs* 1000 (roughly half a day's wage); (2) no one contributes anything to the group fund, thus holding onto their original sum of *TShs* 500; and finally (3) most members contribute everything and a few members contribute nothing. This final option is further explained to the group through an example. If seven players contribute everything and three players contribute nothing, the total amount in the group fund will be *TShs* 3,500. Once doubled it becomes *TShs* 7,000, which divided equally leaves each member with *TShs* 700, except for the three players that contributed nothing. Each of these players will end up with their original sum of 500 that they did not contribute plus the 700 from the group fund, thus totaling *TShs* 1200.

Faced with these scenarios, the PGG game shows how free-riding and self-interested behavior can be rewarded, but not without negative consequences to the rest of the group. Once all the options have been explained, each member makes her/his contributions in private to the

group fund. The tokens the member chooses not to contribute are then turned over on the spot for monetary remuneration. All this insures confidentiality with only the final tally of group fund contributions made to the group, and the final amount in the group fund divided equally. Group altruism scores are based on the group's total contribution to the fund, and ranged from 0.58 to 1, with lower scores revealing groups with more self-interested members and higher scores revealing groups with more altruistic-minded members.

**Group trust.** Three statements concerning group trust were presented on the questionnaire using a three-point Likert scale, with participants responding that they: (1) agreed with the statement; (2) felt neutral or “middle” about the statement; or (3) disagreed with the statement. They responded to the following three statements:

- Most members in your group can be trusted.
- Most members in your group are willing to help if you need it.
- In your group, members generally do *not* trust each other in matters of lending and borrowing money.

These answers were then coded from 1 to 3 and aggregated to the group level to provide three general measurements of group trust.<sup>16</sup> Trust questions represent qualities of cognitive social capital and were adapted from the World Bank's Social Capital Assessment Tools (SOCAT).<sup>17</sup>

**Structural social capital.** The three variables – community leaders, providers/partners, and other groups – were selected as indicators of structural social capital.<sup>18</sup> The first two variables capture the aspect of “bridging” social capital, and thus deal with the extent that groups

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<sup>16</sup> The answers to the third trust question concerning matters of money were recoded to fit the scale, with lower scores representing low trust and higher scores representing high trust among the members.

<sup>17</sup> SOCAT can be accessed at World Bank (2007) [online]  
<http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTSOCIALDEVELOPMENT/EXTTSOCIALCAPITAL/0,,contentMDK:20193049~menuPK:994384~pagePK:148956~piPK:216618~theSitePK:401015,00.html>

<sup>18</sup> These are recognized indicators of structural social capital in the World Bank's Social Capital Assessment Tools (SOCAT) – see above footnote to access the SOCAT online.

have ties or relations with other actors or organizations outside of their community (i.e., village or ward). These ties or relations are more vertical in nature and offer opportunities for the group to access and obtain *new* resources. The third variable – other groups – captures the aspect of “bonding” social capital, and thus deals with ties and relationships within their community.

These ties and relationships are more localized and horizontal in nature and offer opportunities to maximize *existing* resources. But, the conceptual divide between bonding and bridging capital is not always so straightforward, since many of these other groups may also have the ability to access new resources and thus make it possible that belonging to other groups will serve both the purposes of enhancing bonding and bridging social capital. For purposes of this study, the most important point to make when considering these sets of social capital variables is to distinguish between structural social capital and cognitive social capital. These are divided in Table 4-3 with structural social capital indicators being community leaders, providers/partners, and other groups; and the cognitive social capital indicators being the three trust variables and group altruism.

### **Group Composition Variables**

Table 3-3 provides a description and value for a number of explanatory variables dealing with group composition that may affect a group’s ability to improve its market situation. These variables include the following: age of members; education; religion; ethnicity; and gender. There are two variables for gender, with the first delineating groups by gender category and the second considering leadership by sex.

Table 3-3. Group composition variables by description and value

Explanatory variables	Description	Value
Age of members	The average age of the members for each group	<u>Interval</u> Number of years
Education	The average number of years of schooling for each group	<u>Interval</u> Number of years of schooling
Religion	Religion of the majority of members	<u>Nominal</u> 0 = Christian 1 = Muslim
Ethnicity	Ethnicity of the majority of members	<u>Nominal</u> 1) Arusha-Masai 2) Meru 3) Chaga 4) Pare
<u>Gender</u> Group categories	Each group classified into one of four gender categories based on membership, leadership, and decision-making	<u>Nominal</u> 1) Female-only groups 2) Female-dominated groups 3) Male-dominated groups 4) Gender-balanced groups
Leadership by sex	Proportion of male to female elected leaders in the group	<u>Interval</u> Score between 0-1 0 - All female group 0.5 - Balanced leadership 1 - All male group < 0.5 - Female majority > 0.5 - Male majority

**Groups by gender categories.** Groups were classified into four basic gender categories.

These designations were based on group membership, the leadership structure, and the decision-making dynamics of the leaders.

- **Female-only groups**
- **Female-dominated groups:** Majority of the members are women; majority of the leaders are women, and they guide the group or make the important decisions themselves.
- **Gender-balanced groups:** There is a balance of female and male members in the group; there is a balance of male and female leaders in the group and decisions involving the group are not dominated by a particular sex.
- **Male-dominated groups:** Majority of the members are men; majority of the leaders are men, and they guide the group or make the important decisions themselves.

## Group Characteristics Variables

Table 3-4 provides a description and value for a number of explanatory variables dealing with group characteristics that may affect a group's ability to improve its market situation. The activity level variable refers to the number of effectively operating internal activities that a group runs. The type of activities that these groups were involved in, prior to and after the intervention, included: rotating credit schemes; collective marketing; bulk input purchasing; labor sharing activities; and group farms - for purposes of consumption or collective marketing, as well as demonstration plots for experiential learning and seedling nurseries.

Table 3-4. Group characteristics variables by description and value

Explanatory variables	Description	Value
Group age	Number of years the group has been in existence	<u>Interval</u> Number of years
Group size	Number of active members based on data collected during 2 <sup>nd</sup> interview	<u>Interval</u> Number of group members
Combined groups	Groups that are a combination of smaller groups	<u>Nominal</u> 0 = No 1 = Yes
Group level	Groups that have been formed at the village level or at the ward level	<u>Nominal</u> 0 = Village 1 = Ward
Activity level	The number of internal activities that groups are currently doing apart from the project intervention	<u>Interval</u> Total number of activities per group
Maturity	Newly formed group versus groups that have been in existence for a longer period of time	<u>Nominal</u> 0 = Groups in existence for two years or less 1 = Groups in existence for three years or more

## Group Heterogeneity Variables

Table 3-5 provides a description and value for a number of explanatory variables dealing with group heterogeneity that may affect a group's ability to improve its market situation. All

these variables will be tested to ascertain the extent that group homogeneity or heterogeneity affects group marketing performance. Three variables – ethnicity, education, and religion – represent “cultural” attributes and are tested with the wealth and gender to see how such shared, or divergent, views, beliefs, attitudes, and assets produce positive or negative effects on group marketing performance. The coefficient of variation was used to measure educational and wealth heterogeneity. The coefficient of variation is one of the most commonly used statistics by organizational researchers for assessing the effects of group-based demographic diversity (Bedeian & Mossholder, 2000). Ethnic, religious, and gender heterogeneity were measured using a proportions statistic. Again, organizational researchers commonly use this statistic to assess the effects of heterogeneity on group behavior and actions (Williams & Mean, 2004).

Table 3-5. Group heterogeneity variables by description and value

Explanatory variables	Description	Value
Ethnic	Proportion of the members of other ethnic groups by the members of the majority ethnic group	<u>Interval</u> Score between 0 – 0.73 Higher the score, the more ethnic heterogeneity
Religious	Proportion of the members of the minority religions divided by members of the major religion	<u>Interval</u> Score between 0 – 0.5 Higher the score, the more religious heterogeneity
Educational	Coefficient of variation, which is the standard deviation divided by the mean score of the years of schooling of members	<u>Interval</u> Score between 0 – 1.13 Higher the score, the more educational heterogeneity
Gender	Proportion of male members to female members	<u>Interval</u> Score between 0 – 0.76 Higher the score, the more gender heterogeneity
Wealth	Coefficient of variation, which is the standard deviation divided by the mean score of member’s wealth ranking	<u>Interval</u> Scores range from 0.13 – 0.46 Higher the score, the more wealth heterogeneity

## Market Access Variables

Table 3-6 provides a description and value for a number of explanatory variables dealing with market access factors and how they may affect a group's ability to improve its market situation.

**Commodity types.** Each group has certain crops that their members grow that were put forward as possible crops to promote as a viable agro-enterprise. It was important to make some demarcation between these crops since some have more marketable qualities. The crop headings also highlight the different farming systems available to the groups. The cereals/legumes category represents traditional staple food crops, and includes: corn, beans, millet, pigeon peas, and sunflower. The other categories encompass a number of higher value and non-staple food crops, and includes: fruits/vegetables; livestock (i.e., raising dairy cows and chickens); coffee; and rice.

Table 3-6. Market access variables by description and value

Explanatory variables	Description	Value
Distance to market	Distance from group meeting location to the major regional market	<u>Interval</u> Distance in kilometers
Road conditions	Road conditions from group meeting place to major markets	<u>Ordinal</u> 0 = Bad 1 = Average 2 = Good
Commodity types	The primary crops grown and selected by groups to improve their market situation	<u>Nominal</u> 1) Cereals/Legumes 2) Fruits/Vegetables 3) Livestock 4) Coffee 5) Rice
Partner agency (PA)	The two partner agencies working with the farmer groups	<u>Nominal</u> 1) FAIDA 2) TIP
PA linkages	Whether or not PAs actively linked producer groups to other chain actors	<u>Nominal</u> 0 = No 1 = Yes

**Distance to markets and road conditions.** These two variables represent physical access to markets, and thus consider this variable from an exclusively geographical and infrastructural perspective. The distance to markets variable measures the distance from group meeting place to the major market in the region, which for the FAIDA groups is the town of Moshi in the Kilimanjaro region, and for the TIP groups it is the town of Arusha in the Arumeru Region. The road condition variable was built on an ordinal scale with the following delineations:

- **Good road conditions:** Group meeting place is 2 kilometers or less from a paved road that connects to the major regional market.
- **Average road conditions:** Group meeting place and surrounding area connected by gravel road. Road is fairly flat and accessible most of the year.
- **Bad road conditions:** Group meeting place and surrounding area connected by dirt road only. Road is uneven, difficult to maneuver, and may not be passable during the rainy seasons.

**Partner agency (PA) and PA linkages.** The partner agency variable is categorized under market access since the PAs are attempting to enhance the marketing skills of the farmer groups in the hope that groups will undertake collective action initiatives to improve their market situations. Given some of the differences in the training activities, there is the expectation that each PA will have varying results in improving the marketing performance of their respective farmer groups. Likewise, PAs are also active in linking farmer groups to other chain market actors, and thus both their market linkage success and failures will impact groups' marketing performance.

### **Matching Research Objectives with Hypotheses**

This final section restates the principal research objectives of this study and matches these objectives to the relevant hypotheses. This is followed by a number of explanatory variables that will be used to test each set of hypotheses.

## **Objective 1: Farmer Group Assets**

The first objective is to assess the extent that certain livelihood asset configurations (i.e., natural, physical, financial, human, and social) will affect the group's ability to improve their market situation. Hypotheses relating to the group asset objective include:

- **Hypothesis 4f:** Farmer groups with lower levels of poverty among members will be better positioned to improve their marketing performance.

It has been clear from the onset of this study that “poverty” is broadly defined to include the five livelihood capital assets (i.e., physical, natural, financial, human, and social). The first hypothesis will be tested using the following variables: Wealth ranking; Reliable water source; Land; Education; Commodity types. There are also more specific hypotheses dealing with different aspects of social capital. The first three hypotheses are concerned with cognitive social capital:

- **Hypothesis 3a:** Farmer groups with a high level of trust among members will be better positioned to improve their marketing performance.
- **Hypothesis 3b:** Farmer groups that exude more altruistic rather than self-interested behavior among members will be better positioned to improve their marketing performance.
- **Hypothesis 4c:** Farmer groups with higher level of interdependence among members will be better positioned to improve their marketing performance.

These hypotheses will be tested using the following variables: General trust; Help trust; Money trust; Altruism. The last hypotheses under the group asset objective deals with structural social capital:

- **Hypothesis 3c:** Farmer groups with more ties to other organizations in and outside of their community will be better positioned to improve their marketing performance.

This hypothesis will be tested using the following variables: Community leaders; Providers/Partners; and Other groups.

## **Objective 2: Farmer Group Composition**

The second objective is to assess the extent that certain group composition attributes will affect their ability to improve their market situation. Hypotheses relating to the group composition objective include:

- **Hypothesis 4d:** Farmer groups with heterogeneity of endowments will be better positioned to improve their marketing performance.
- **Hypothesis 4e:** Farmer groups with homogeneity of identities will be better positioned to improve their marketing performance.
- **Hypothesis 2a:** The gender composition of groups, especially of the decision makers, will influence group marketing performance.

These hypotheses will be tested using the following variables: Leadership by sex; Gender categories; and the five heterogeneity variables (i.e., ethnic, religious, educational, gender, wealth).

## **Objective 3: Farmer Group Characteristics**

The third objective is to assess the extent that certain group characteristics, which include the group's institutional capacity, will affect their ability to improve their market situation.

Hypotheses relating to the group characteristics objective include:

- **Hypothesis 1a:** Farmer groups with functioning internal institutions for guiding group behavior and action will be better positioned to improve their marketing performance.
- **Hypothesis 4b:** Farmer groups with past successful activities will be better positioned to improve their marketing performance
- **Hypothesis 4a:** Smaller farmer groups will be better positioned to improve their marketing performance

These three hypotheses will be tested using the following variables: Maturity; Age of group; Current activities, and Size of group. The first three variables act as proxy measures for

functioning internal institutions and by their extension to the types of activities these groups are capable of doing.<sup>19</sup>

#### **Objective 4: Market Access**

The fourth objective is to assess the extent that physical market barriers will affect the group's ability to improve their market situation.

#### **Objective 5: Partner Agency.**

The fifth objective is to assess the extent that partner agency interventions of group-capacity trainings and market linkages will affect the group's ability to improve their market situation.

Both of these objectives are examined through the following hypotheses:

- **Hypothesis 1b:** Farmer groups that establish institutional arrangements with other chain actors (i.e., rules for guiding *exchange* behavior) will be better positioned to improve their marketing performance.

This hypothesis will be tested using the following variables: Partner agency (PA) and PA linkage. These become testable variables because both FAIDA and TIP are attempting to link a number of the farmer groups to other market intermediaries, including some of these under contractual agreements. By looking at those farmer groups that were actively linked to other chain actors, it is possible to assess the extent that they profited from these new “institutional arrangements.”

- **Hypothesis 1c:** Farmer groups that have lower transaction costs vis-à-vis other competitors will be better positioned to improve their marketing performance.
- **Hypothesis 5a:** Farmer groups with infrastructural advantages over their competitors will be better positioned to improve their marketing performance.

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<sup>19</sup> It is worth noting that one variable that I intended on including was whether or not the farmer groups had a working constitution and set of by-laws, which is one form of formalized internal institutions that can help guide group behavior and action. But, there was no point including this variable since one of the first trainings done by the partner agencies was to establish a group constitution and by-laws. Whether or not a group adhered to or was committed to upholding these sets of internal institutions was never conclusive enough to add to my analysis.

These two hypotheses will be tested using the following variables: Distance to markets; Road conditions; Reliable water source; Land; and Commodity types.

### **Data Analysis**

All the hypotheses were tested using a combination of quantitative and qualitative data analysis techniques. Quantitative data analysis was done by utilizing the Statistical Package for the Social Sciences (SPSS) software (George & Mallery, 2001) to test the bivariate associations (ANOVA) and correlations (Pearson's R) of the explanatory variables and group marketing performance. Statistically significant factors from bivariate analysis were then inputted into a two-stage multiple linear regression model to analyze variable interactions as one way to determine the underlying factors that enable or constrain smallholder farmer groups' ability to improve their market situation. The results of the quantitative data analysis are provided in the chapter 4. Chapter 5 utilizes descriptive statistics (i.e., cross-tabulations) and qualitative data analysis techniques (i.e., categorizations, classifications) to explore the relationship between the explanatory variables and the different types of marketing strategies employed by farmer groups to improve their market situation.

### **Reliability and Validity of Measurements and Results**

This study endeavored to use reliable instruments and valid measurements to assess the effects of the planned change initiative on farmer group marketing performance.

**Reliability of measurements.** "Measurement reliability means that your research observations are consistent over time, across settings, and instruments" (Merrigan & Huston, 2004, p. 62). Because reliability is synonymous with consistency, the major source of unreliable measurements is random error. Two principal sources of random error that contribute to inconsistent measurements are lack of instrument clarity and errors in data processing. As Merrigan & Huston (2000, p. 63) highlight:

Lack of instrument clarity can come from ambiguously worded questions (e.g., on a survey questionnaire or in an interview) or from unclear instructions to research participants, either of which might lead participants to respond inconsistently. Errors in data processing occur when data are being translated from one form to another. For example, an error may be committed when data from the hard copies of a survey questionnaire are entered into the computer, or when interview responses are being transcribed from audiotapes into a word processor.

This study attempted to overcome lack of instrument clarity in two ways. First, questions on the interview guideline and self-administered questionnaire were reviewed by University of Florida faculty and fellow graduate students, and then by the partner agencies and my research assistant to insure the questions were relevant, appropriate, and clearly written. Second, the interview guideline was pilot-tested on four farmer groups, which led to a number of revisions in terms of clarity and substance. Errors in data processing were minimized in several ways as well. First, after the participants completed the self-administered questionnaire, my research assistant and I reviewed the answers in the presence of the participant. This provided the participant an opportunity to ask questions of clarity or substance, and it also provided the chance to double-check the questionnaire to insure that all questions were answered properly. In terms of data processing, my research assistant inputted all questionnaire data in excel sheets and I double-checked all data to catch input errors

**Validity of measurements and results.** Where reliability considers matters of consistency, validity is largely a matter of accuracy. Concerns with validity within and across studies are generally divided between *internal* and *external* validity. As described by Merrigan & Huston (2004, p. 62), “Efforts to assure internal validity warrant the factual accuracy of measurement within a research study; whereas efforts to assure external validity concern the accuracy of applying conclusions from one study to another setting or to other people.”

**Internal validity.** According to Merrigan & Huston (2004, p. 63), there are three types of internal validity: face validity; criterion validity; and construct validity. The explanatory

variables were measured largely by face and criterion validity. Starting with the latter, the designations, descriptions, and values of many of the explanatory variables were carefully considered by drawing from other studies that have measured and used these variables in similar ways to assess their effects on group performance outcomes. Variables in this study that were established using criterion validity include: wealth ranking; the social capital variables; group altruism; and the heterogeneity variables. Many of the other explanatory variables were established using face validity. Face validity, according to Merrigan & Huston (2004, p. 63) should satisfy two requirements:

First, a content valid [face validity] measure captures the richness of the concept it was intended to measure. Measuring instruments that capture more inclusively the broadest meanings of a concept are considered richer and more accurate. ...Second, all measuring instruments should be subjected to public scrutiny of people who are experts on the topic to be measured. If people with considerable training and experience agree that your measure seems likely to yield accurate data, then your measure has passed the test of public scrutiny.

Some of the explanatory variables in this study invariably pass this test of public scrutiny because they simply “make sense” (e.g., size of group; age of group; religion; ethnicity; distance to market, etc.). Others must be considered more carefully and where possible I have tried to provide sufficient detail on my reasoning for measuring these variables a particular way (i.e., commodity type; reliable water source; current activities; road conditions, gender categories). The primary response variable, marketing performance rating (MPR), is also a variable that has been established using face validity. I did not come across any measurement within the existing literature that could adequately measure group marketing outcomes, and thus, necessitated the development of my own measurement. This variable will and should come under public scrutiny. But, it does remain a measurement that reflects the reality and perspectives of the farmer groups. The basis of MPR was established from the groups stating whether or not they had improved their market situation. But, as elucidated earlier, it was not enough for the farmer

groups to just say it; they also had to provide concrete examples of how they went about actually improving their situation.

Apart from the measurements, a higher level of validity or credibility was insured through the process of triangulation, which refers to “the use of multiple sources of data, methods of collecting data (various people, times, and settings), multiple investigators and drawing upon multiple theoretical bases (Ary et al., 1996 - *quoted in* Davis 2004, p. 6). Triangulation occurred by crosschecking data collected from farmer groups with key informants (i.e., community leaders, agricultural extension, community development officers, district officials, agribusiness representatives); daily and weekly conversations with my research assistant, PA field staff and fieldworkers; and by reviewing project documents. The validity and credibility of results were also strengthened by conducting a partners’ workshop at the conclusion of the study, that began with a presentation of the preliminary findings to the AMSDP and PA staff, and followed with a collaborative effort to take these findings and put them into practical use for the next round of the PA intervention with farmer groups. The workshop was an effort on part of the researchers to “give back” the research to those that could make best use of it.

**External validity.** This is largely an issue of transferability by considering the extent that the measurement instruments, findings, and conclusions/recommendations of this study can be applied to other studies. The measurement instruments of this study are not context-specific, and there is every reason to believe that this study could be replicated in different settings where researchers and practitioners are engaged in assessing the impact of market-oriented interventions. Indeed, a great deal would be gained from cross-study comparisons. However, the findings *are* context-specific in that generalizing these findings outside of the study area (i.e., the Arusha-Kilimanjaro region) would violate the principles of ecological validity, that refer to

generalizing the findings of the study sample to a larger population (Merrigan & Huston, 2004, p. 66). The specific factors that affect smallholder farmer groups' – in the Arusha-Kilimanjaro region – ability to improve their market situation *cannot* be generalized to all of Tanzania's smallholder farmer groups. With this said, a number of research and programmatic recommendations are presented in the final chapter that have been made purposefully generalizable in order to offer practical approaches for change agents interested in engaging smallholder farmers in agro-enterprise development initiatives.

By concluding the discussion of the research methods, the next two chapters provide the study findings. Chapter 4 presents the results of the quantitative data analysis and chapter 5 explores the relationship between the explanatory variables and the different types of marketing strategies employed by farmer groups to improve their market situation.

CHAPTER 4  
FINDINGS: PART I

This chapter first discusses the major marketing obstacles facing the farmer groups in this study. This includes identifying the livelihood asset constraints by marketing obstacles, that provide a useful context for understanding how group assets and attributes may affect a group’s ability to improve its market situation. The second section presents the quantitative data analysis results of the effects of the study’s independent variables on the principal dependent variable – group marketing performance. This is done first by carrying out bivariate analysis using the statistics ANOVA and Pearson’s R. Both statistically *and* meaningfully significant findings are discussed to understand the factors that will impede or enhance a group’s ability to improve its market situation. Following this analysis, the statistically significant variables, as well as other selected variables, are inputted into a two-stage multiple linear regressions model to analyze variable interactions.

**Marketing Obstacles**

During the first round of group interviews, each group was asked about the prevailing marketing issues that constrained their ability to improve their market situation. Table 4-1 provides a list of the most frequently mentioned marketing obstacles facing each of the PA groups.

Table 4-1. Marketing obstacles by PA groups

FAIDA marketing obstacles	TIP marketing obstacles
1. Bad roads/high transportation costs	1. Bad roads/high transportation costs
2. Low prices for produce	2. No special place to sell crops
3. No market information	3. Lack of capital
4. Lack of special measuring equipment	4. No reliable markets
5. Lack of storage houses	5. Lack of storage houses
6. No reliable markets	6. Unreliable agricultural inputs
7. Lack of capital	7. High customs duty in market place

Both FAIDA and TIP groups share some of the same marketing obstacles that include: bad roads/high transportation costs; lack of storage houses; lack of capital; and no reliable market.

The first three are self-explanatory but “reliable” market deserves more attention. Many of the groups talked about not having a reliable market. Groups were often asked how they would define a reliable market, and most definitions centered on having markets where the farmers could get a consistently fair or good price for produce year round. Coming from a state-led economy where marketing boards and fixed prices on staple crops was the norm until the early 1990s, many farmers still clearly remember the days of this form of a “reliable” market. But when groups were asked if they would prefer to return to this system, all groups rejected any notion of returning to the state-intervening marketing days. Every group preferred the open market economy where a farmer could produce and sell what she or he wanted, but many of the groups also expressed their frustration with volatile and low market prices, as well as with monopsonistic marketing channels (i.e., many producers and only a few traders dominating the channel) for some of their commodities (especially cereals/legumes).

Marketing obstacles most frequently mentioned that were specific to the FAIDA groups included: low prices for produce; no market information; and no special measuring equipment. In regard to the third obstacle, no special measuring equipment refers to the fact that most produce is bought and sold by volume rather than by weight. The major complaint of farmers involves the issue of *rumbesa*. *Rumbesa* are large sacks that are used by rural assemblers and wholesalers, who stuff them full of produce and then close them with a stitched top layer of the sack material. The sacks are fairly uniform and can hold approximately 80 kilograms of corn. But, the top layer that encloses the sack varies depending on the trader, and can hold anywhere from 10 to 40 kilograms more. It is this top layer that causes the greatest amount of friction, as farmers constantly accuse traders of underpaying them for their produce. This can be understood more clearly by looking at Figure 4-1 where a picture shows onions packed in *rumbesa*.



Figure 4-1. Onions packed in *rumbesa*

The government has attempted to tackle this issue on the behalf of farmers. During the course of this study, the government passed a law that requires all wholesale markets to start buying and selling produce by weight instead of by volume. But the law has yet to be implemented and faces fierce opposition by agricultural traders. The whole marketing system revolves around trade in volume – from the rural assemblers that pack the *rumbesa*, to the transporters that fix prices based on the number of *rumbesa* carried, to the wholesalers that buy and sell based on *rumbesa*, and even the government’s own system of taxation, which taxes produce based on volume. Any effort to implement this new legislation will first require the government to completely overhaul its taxation system. But, at the present time, the government has neither the financial will to pay for all the necessary measuring equipment, nor the political will to confront the myriad of chain actors that are vehemently opposed to these measures.

Another marketing obstacle mentioned by the FAIDA groups, but one that certainly applies to all groups, is a lack of market information, which refers to information on prevailing prices, quality standards, and quantity demands. Every group was asked how they obtained

market information; four ways of getting this information were mentioned. The most common method was by simply talking to other people in the village – either from those who had already sold their produce at farm gate, or to those who had recently returned from the market place. The second way was to go to the market themselves, but this often meant just accepting whatever prices the wholesalers or retailers were offering. The third way was to talk to rural assemblers in the area, but the groups did say they rarely trusted the information provided. The fourth way was through the use of technology, namely radios and mobile phones. In the study sample of 388 farmers, 91 percent own a radio and 38 percent own a mobile phone. It is also worth mentioning that *every* group had at least one member with a mobile phone, but few group members felt that these technologies were useful for accessing market information. There are weekly radio broadcasts that give market information on the major Tanzanian markets, but farmers considered this information totally useless since these are markets outside of their reach, and local prices in their area markets are rarely the same as in these larger markets. In regard to mobile phones, a few group members said that they used their phones to contact rural assemblers, wholesalers, or retailers – as well as relatives and friends who live near an area market – to find out about market prices, but this was more the exception than the rule.

Returning to other marketing obstacles, TIP-specific constraints include: no special place to sell crops; high customs duty; and unreliable agricultural inputs. Beginning with the third obstacle, many farmers are constrained by lack of access to timely and appropriate agricultural inputs (primarily fertilizers and pesticides). This constraint was vocalized most strongly by vegetable farmers that have great difficulties accessing the appropriate inputs to fight pests and disease. The other two obstacles – no special place to sell crops and high customs duty – are interrelated and deal with problems farmers face when trying to sell directly to wholesalers and

retailers. If farmers go to the market to sell their crops to wholesalers or retailers, they must first pay tax to the marketing officials. Given what the farmers perceive to be high taxes, coupled with the transportation costs incurred by bringing their produce to the market, many farmers would rather sell their crops at farm gate to rural assemblers. The issue of having no special place to sell their crops is related to this by the fact that any farmer that wishes to sell their crops in these market places directly to consumer must first obtain a permit from the marketing officials. Two problems arise out this. First, this is one more cost that many farmers cannot afford, and second, many market places have reached their spatial capacity and will not issue any more permits.

### **Gender Specific Marketing Obstacles**

During the group interview discussion on marketing obstacles, the question was posed on whether or not there were any specific constraints that affected men or women more directly. The most frequent response was that women were more affected by most of the marketing obstacles because they assume primary marketing responsibility in the household. More often than not, it is women who will negotiate with rural assemblers over farm-gate prices, or who will go to the market to sell their produce to wholesaler and retailers. Several groups, particularly the female-only and female-dominated groups, provided some specific examples of the constraints they faced. The most frequent comment from women on specific marketing obstacles revolved around transportation difficulties. This included the high costs of hiring transport and as a consequence having to carry the produce themselves to the market. This is exacerbated by the fact that even if their household owns a bicycle, it is culturally inappropriate for women to ride it, and thus cannot be of any use in transporting their produce. Another frequent constraint women face is harassment by marketing and health officials. Because they cannot afford permits, or they are not available, many women are forced to sell outside the market place,

oftentimes directly adjacent where customers can see them. But, if marketing and health officials catch them doing this, they will confiscate their produce and forcefully remove them from the market area. As a consequence, many women complain of having to get up very early in the morning in order to sell their produce before the marketing and health officials arrive.

Women also spoke about being burdened with productive and reproductive activities that gave little time for seeking out other market opportunities – often reconciled with selling their produce at whatever price the buyers would offer. Women also complained that erratic market prices were causing friction and conflict between them and their husbands. This manifests in situations where a husband thinks they will get a certain price for their crops, but when the woman returns from the market with less money than expected, he blames her for withholding money, and as some women said, this had led to increased conflict in the household, and, in some cases, to spousal abuse.

### **Matching Marketing Obstacles to Livelihood Asset Constraints**

On a conceptual level, the marketing obstacles that face farmers relate to a lack of livelihood assets that would allow them to overcome these constraints, particularly so for women. It is important to equate livelihood assets to certain marketing obstacles to ascertain the extent that the PA intervention of capacity training activities can be effective in overcoming their constraints and improving their market situation. Table 4-2 breaks down livelihood asset constraints by marketing obstacles. As shown in the table, several of the marketing obstacles overlap livelihood asset constraints. The marketing obstacles of no reliable market and low prices for produce are a function of a lack of both natural and social assets. Farmers must contend with a given set of agro-ecological conditions that will limit their ability to improve their market competitiveness. If farmers can only grow crops that lack market demand, it will be difficult for them to get good prices or secure a reliable market for their produce. But, there may

be farmers with favorable agro-ecological conditions that only lack the marketing contacts (i.e., social assets) that could secure them with better prices and a more reliable market.

Table 4-2. Livelihood asset constraints by farmer group marketing obstacles

Natural assets	Physical assets	Financial assets	Human assets	Social assets
Bad roads	No place to sell crops	High transport costs	No market information	No market information
No reliable market	Lack of measuring equipment	Lack of capital		Low prices for produce
Low prices for produce	Lack of storage houses	High market taxes		No reliable market
	Unreliable agricultural inputs	Unreliable agricultural inputs		

Similarly, lack of market information is a combination of human and social asset constraints. To gain knowledge (i.e., human assets) about prices, quality standards, and commodity demands requires developing relationships with chain actors who can provide them with reliable and timely information. Some of the livelihood assets match more clearly with specific marketing obstacles. For example, the obstacles of no place to sell crops and lack of storage houses and measuring equipment are largely a function of physical asset constraints. Likewise, financial assets constraints matches with marketing obstacles of high transport costs, high market taxes, and lack of capital. But when it comes to unreliable agricultural inputs so this could be a function of financial asset constraints (i.e., not being able to afford the right inputs) and physical assets constraints (i.e., being too far from market centers where they could access these inputs more easily).

Obviously, it is difficult to make clear distinctions between these livelihood asset constraints and marketing obstacles, and there are number of inter-related assets and marketing obstacles that could be debated further. But, the primary purpose is to highlight the areas where

the PA intervention may prove most successful in improving the market situation of the farmer groups. It must be remembered that the PAs were tasked with delivering capacity-building training (i.e., enhancing human assets) and where possible, to link the farmer groups to other market chain actors (i.e., enhancing social capital). As the next section will show, certain asset and attribute configuration made some of the groups better suited to benefit from the PA intervention.

### **Group Marketing Performance Results**

Through a number of collective action measures, 19 farmer groups (56%) improved their market situation. Thirteen farmer groups had some market improvement with a MPR of 1 and six groups had large improvements with a MPR of 2.

Table 4-3. Marketing performance rating by partner agency

	Marketing performance rating (MPR)			Total sample
	No improvement	Some improvement	Large improvement	
Farmer groups	15	13	6	34
<u>Partner agency</u>				
FAIDA	9	6	1	16
TIP	6	7	5	18

TIP fared better than FAIDA with two-thirds of their groups (67%) improving their situation whereas FAIDA saw less than half of their groups (44%) showing improvement. TIP also had five of their groups see large improvements in their market situation, whereas only one of the FAIDA groups showed large improvements.

### **Underlying Factors to Group Marketing Performance**

This section looks at the underlying factors that may be associated with successful marketing performance. A number of group assets, characteristics, and other explanatory variables were tested to ascertain how these might play a determining factor in group marketing performance.

Tests of association and correlation (ANOVA and Pearson's R) were conducted to analyze the statistical significance of mean values between farmer groups. Table 4-4 provides a summary of the results of the bivariate analyses. There are seven variables that are statistically significant ( $p < 0.10$ ) and three other variables that approach significance ( $p < 0.15$ ).<sup>20</sup> These include: reliable water source; education; leadership by sex; age of group; maturity; activity level; ethnic heterogeneity; commodity types; partner agency; and PA linkages. Although the other variables do not show statistically significant mean differences, there are important substantive insights to gain when comparing those that improved their market situation to those that did not. Thus, attention will also be given to many of the other variables to understand why differences did not emerge. The independent variables are discussed within their respective sub-headings, which include: group assets; group composition; group characteristics; group heterogeneity; and market access.

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<sup>20</sup> Due to the small sample size ( $n=34$ ), all independent variables with a p value below 0.10 are considered statistically significant, and p values below 0.15 as approaching significance. These tests of significance are being used primarily to bring attention to certain variables that warrant further exploration and discussion, as well as to ascertain if these differences are *meaningfully* significant, and not only statistically significant.

Table 4-4. Test of significance using ANOVA and Pearson's R

Explanatory Variables	N	F statistic	R statistic	P value	Test
<b>GROUP ASSETS</b>					
Wealth ranking	34		0.199	0.260	Pearson's R
Reliable water source	34	19.806		0.000***	ANOVA
Land	32		0.097	0.596	Pearson's R
General trust	34		-0.099	0.590	Pearson's R
Help trust	34		-0.033	0.859	Pearson's R
Money trust	34		0.049	0.792	Pearson's R
Altruism	34		-0.030	0.867	Pearson's R
Community leaders	29		0.170	0.377	Pearson's R
Providers/Partners	34		-0.048	0.788	Pearson's R
Other groups	32		0.068	0.710	Pearson's R
<b>GROUP COMPOSITION</b>					
Age of members	34		-0.222	0.208	Pearson's R
Education	34		0.313	0.072*	Pearson's R
Religion	34	0.902		0.349	ANOVA
Ethnicity	34	0.518		0.673	ANOVA
Gender categories	34	0.411		0.747	ANOVA
Leadership by sex+	34		0.281	0.108+	Pearson's R
<b>GROUP CHARACTERISTICS<sup>21</sup></b>					
Age of group	33		0.314	0.075*	Pearson's R
Maturity	34	4.375		0.045**	ANOVA
Size of group	33		0.106	0.557	Pearson's R
Combined groups	34	1.630		0.211	ANOVA
Level of groups	34	0.099		0.755	ANOVA
Activity level	34		0.579	0.000***	Pearson's R
<b>GROUP HETEROGENEITY</b>					
Ethnic	34		0.256	0.145+	Pearson's R
Religious	34		-0.088	0.621	Pearson's R
Educational	34		-0.147	0.406	Pearson's R
Gender	34		0.182	0.304	Pearson's R
Wealth	34		0.073	0.681	Pearson's R
<b>MARKET ACCESS</b>					
Distance to market	34		-0.175	0.322	Pearson's R
Road conditions	34	0.066		0.936	ANOVA
Commodity types	34	4.670		0.005***	ANOVA
Partner agency	34	3.160		0.085*	ANOVA
PA linkages	34	2.753		0.107+	ANOVA

\*\*\*p < 0.01, \*\*p < 0.05, \*p < 0.10, + approaching significance (p < 0.15)

<sup>21</sup> Under the Group Characteristics category, the age of group statistic excludes one group from the sample size. This group has been in existence for 16 years, whereas the next oldest group in the study is only 8 years. Given the sample size, the group acts as an extreme outlier that would disproportionately affect the results. The size of group statistic also excludes one group because it acts as an extreme outlier. This group has 160 members and including them would disproportionately affect the results.

## Group Assets

Table 4-5 shows the effects of the group asset explanatory variables on group marketing performance. A market performance rating (MPR) is represented for groups with no market improvement as 0; for groups with some improvement as 1; and groups with large market improvement as 2. Groups are also shown by “market improvement” that classifies groups into those that did and did not improve their market situation.

Table 4-5. Group asset variables

Explanatory variables	Marketing performance rating			Market improvement		
	0	1	2	No	Yes	% Improved
Wealth ranking	3.13	3.17	3.45	3.13	3.26	
<u>Reliable water source***</u>						
Yes	3	9	6	3	15	84%
No	12	4	0	12	4	25%
Land	3.55	3.04	3.53	3.55	3.26	
General trust	2.56	2.60	2.45	2.56	2.55	
Help trust	2.59	2.69	2.52	2.59	2.63	
Money trust	2.28	2.28	2.34	2.28	2.30	
Altruism	0.86	0.87	0.85	0.86	0.86	
Community leaders	0.47	0.55	0.53	0.47	0.55	
Providers/Partners	0.63	0.95	0.76	0.76	0.85	
Other groups	4.14	3.33	5.17	4.14	3.94	

\*\*\*p < 0.01, \*\*p < 0.05, \*p < 0.10, + approaching significance (p < 0.15)

**Reliable water source.** As shown in Table 4-5, the only statistically significant variable of group assets that is associated with improved marketing performance is a reliable water source. Eighty-four percent of the groups with market improvements had a reliable water source. There is little question that when groups rely solely on rain-fed agriculture, they face a more limited range of opportunities to exploit market potentials and improve their situation. It is also worth noting that all six groups with a MPR of 2, or large market improvements, had access to a reliable water source. This is not to say that such improvements cannot be made, as evidenced by the four groups that were able to do this without a reliable water source. But in all of these cases, water was not as much of a limiting factor to improving their marketing performance as it was to other groups. In two such cases, the chosen commodity did not require a reliable water

source. The first group increased their bargaining position and sales by breeding modern variety chickens; and the second group rented a grain storage house and sold their corn at higher prices later in the season. The other two groups in this sample entered a contract with an agricultural company to grow artemisia.<sup>22</sup> This company had already decided on the territorial area for artemisia production, which though based partially on area percentages of rainfall, the two major factors were proper soil types and the availability of land. Both groups were located in the chosen production area and both had access to land for expanded production.

**Other groups.** Although the differences seem slight, the data show that groups with more ties with other groups were less likely to improve their market situation. This finding runs counter to the hypothesis that groups with more ties to other groups will have access to new resources (i.e., market information, technologies, financial assistance, etc.) and thus should help these groups to improve their market situation. One explanation for this finding is that belonging to other groups does not mean that they are getting access to the *right* kind of resources that could help them improve their market situation. Another reason may be that group members with multiple memberships in other groups may place greater importance on these other groups, thus putting in more of their effort and time in making those groups succeed.

**Trust and group altruism.** In regard to group trust and altruism, there was the expectation that groups with higher scores would show more market improvement, but there is little to no difference between the three trust variables, as well as the group altruism scores. By averaging the three trust scores together, groups with no market improvement had a total trust score of 2.48, and groups with market improvement had a trust score of 2.49. The fact that these

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<sup>22</sup> Artemisia, or *Artemisia annua*, is a herbal plant that is processed into artemisinin, which is used in the treatment of malaria.

scores are virtually the same explains why they are not statistically significant, but more importantly, it shows that practically *all groups* have a high level of trust among their members.

**Group wealth.** It was expected that more high resource, or wealthy, groups would be better positioned to improve their market situation. However, there are only slight differences when comparing mean group wealth, with scores of 3.13 for the groups with no improvement and 3.26 for those with market improvement. There were, however, greater differences between those groups that had large improvements, with a score of 3.45, compared to those with some improvement (3.17) and those with no improvement (3.13), but again it was expected that more clear differences would emerge. Nonetheless, these findings paint only a partial picture, and further details on issues of wealth are discussed later in the chapter.

**Community leaders and providers/partners.** In both the community leaders and providers/partners variables, there were no significant differences between these variables and an improved market situation. However, the next section returns to this issue as it pertains to gender categories.

### **Group Composition**

Table 4-6 shows the effects of the group composition variables on group marketing performance.

**Education.** The findings under education prove to be statistically significant with those groups with no market improvement having averaged less than seven years of schooling, versus those groups with improvement having averaged over seven years of schooling. This is important because it reveals that groups with some secondary education were more likely to improve their market situation over groups with only primary education. Furthermore, given the fact that this intervention dealt primarily with human capacity training, most likely groups with

higher education levels were able to absorb more content, and put more ideas into practice to improve their market situation.

Table 4-6. Group composition variables

Explanatory variables	Marketing performance rating			Market improvement		
	0	1	2	No	Yes	% Improved
Age of members	47.2	42.3	45.5	47.2	43.3	
Education*	6.6	7.1	7.6	6.6	7.2	
<u>Religion</u>						
Christian	15	7	6	15	13	46%
Muslim	0	6	0	0	6	100%
<u>Ethnicity</u>						
Chaga	8	5	2	8	7	46%
Arusha-Masai	1	5	1	1	6	86%
Meru	6	1	3	6	4	40%
Pare	0	2	0	0	2	100%
<u>Gender categories</u>						
Female-dominated	2	0	1	2	1	33%
Female-only	1	2	0	1	2	67%
Male-dominated	2	4	2	2	6	75%
Gender balanced	10	7	3	10	10	50%
Leadership by sex+	0.49	0.60	0.71	0.49	0.64	

\*\*\*p < 0.01, \*\*p < 0.05, \*p < 0.10, + approaching significance (p < 0.15)

**Leadership by sex and gender categories.** The sex of leaders reveals some differences in group performance. The data show that groups with a greater ratio of male to female leaders are more likely to improve their market situation. A related finding is that even though there are not many differences among the gender categories, the one exception is the category of male-dominated groups. Where the rest of the categories show a fairly even mix of groups with and without improvement, in the category of male-dominated groups, 75 percent of the groups (six out of eight) showed improved marketing performance.<sup>23</sup>

These findings show that female-only groups often find themselves in a disadvantaged position compared to their male counterparts when it comes to searching for and accessing new

<sup>23</sup> It is interesting to note that in almost all groups, women were their elected treasurers – even in the cases of male-dominated groups. Reasons given for electing a woman for this position revolve around the belief that women are more trustworthy, more responsible, and better at managing money than men. Several male respondents noted that women won't "run away with the money" like their male counterparts – meaning, they have responsibilities to their home and they would never abandon their children.

markets for their existing products, and possibly even more so in pursuing new products, as would be found under contract arrangements. One reason these “new market” resource channels are easier to access by men is that they are more likely to be approached by agricultural companies or other chain actors wanting to do business. Men are approached more than women because it is assumed – often wrongly – that they are the primary producer in the household and thus deemed the primary decision-maker in such areas as contract arrangements or service provision delivery. This also stems from the fact the more men are in position of authority in the villages, either as elected or traditionally selected community leaders. External change agents (i.e., agribusinesses, agricultural extension, community development officers, NGOs) usually approach community leaders first when looking to start new projects or enterprises, particularly when introducing new products and new market opportunities. Hence, by analyzing the differences between the gender categories and community leaders and providers/partners variables, male-dominated groups find themselves in an advantaged position to access new resources. A comparison of gender categories by community leaders and provider/partners is shown in Table 4-7.

Table 4-7. Gender categories by community leaders and providers/partners

<u>Groups by gender categories</u>	<u>Community leaders</u>	<u>Providers/Partners</u>
Female-only	0.33	0.62
Female-dominated	0.29	0.70
Male-dominated	0.60	0.97
Gender balanced	0.52	0.79

The clearest distinction is between female-only groups and male-dominated groups where the proportion of members who are community leaders and the number of past relationships with providers/partners are far higher for male-dominated groups. These findings offer further evidence that male-dominated groups have a gendered advantage over female-only and female-dominated groups. The six male-dominated groups that improved their market situation

achieved this by accessing “new” markets, either through contract arrangements with agricultural companies (three groups) or by pursuing new buyers for their existing products (three groups). These findings also reveal another structural advantage for men. Even when not being “courted” by change agents, men are not burdened with most of the reproductive and household activities, and thus, tend to have greater mobility and time to search for these markets on their own. It is also worth noting that half of the groups which are composed of female-only and female-dominated improved their market situation. Each of these groups achieved this by utilizing marketing strategies that enabled them to overcome these gendered marketing obstacles. How these groups did this will be discussed in greater detail in the next chapter.

**Religion.** The findings under religion show that all six groups with a majority of Muslim members improved their market situation, whereas only half of the Christian-majority groups improved their market situation. Although it should not be ruled out that there is some inherent value to being Muslim that gave these groups an advantage (e.g., not drinking alcohol), the more likely reason is that these six groups share other group characteristics and assets in common that would lead them to higher marketing success. The fact that the majority of the Muslim groups have been in existence for some time (i.e., not newly formed); have reliable water sources; and grow high value crops, lends more credence to the supposition that other factors were in play regarding their improved marketing performance (see below).

**Ethnic Groups.** Groups with a majority of Arusha-Masai peoples (five out of the six groups) rather than ethnic groups, such as the Meru and Chaga, were more likely to improve their market situation. Possible reasons for this will be given later, but it is suffice to say at this point that the Arusha-Masai groups had an excellent success rate due to a blend of appropriate lands and willingness to take risks (see below).

## Group Characteristics

Table 4-8 shows the effects of the group characteristic variables on group marketing performance.

**Activity level.** An important finding under the group characteristic heading is that groups with a greater number of activities were more likely to improve their market situation. As mentioned in the research methods chapter, these type of activities included: rotating savings and credit schemes; collective marketing; bulk input purchasing; labor sharing activities; and group farms - for purposes of consumption or collective marketing, as well as demonstration plots for experiential learning and seedling nurseries.

Table 4-8. Group characteristics variables

Explanatory variables	Marketing performance rating			Market improvement		
	0	1	2	No	Yes	% Improved
Age of groups*	3.29	3.46	5.17	3.29	4.00	
Size of groups	31.40	29.77	35.40	31.40	31.33	
<u>Combined groups</u>						
Yes	9	5	2	9	7	44%
No	6	8	4	6	12	67%
<u>Level of groups</u>						
Village level	11	9	5	11	14	56%
Ward level	4	4	1	4	5	55%
<u>Maturity**</u>						
Newly formed groups	8	6	0	8	6	43%
Existing groups	7	7	6	7	13	65%
Activity level***	0.53	1.46	2.17	0.53	1.68	

\*\*\*p < 0.01, \*\*p < 0.05, \*p < 0.10, + approaching significance (p < 0.15)

Eighty-four percent of the groups with improved marketing performance had at least one group activity. Even more telling is that 10 out of 19 groups with market improvement had two or more activities, whereas none of the groups with no market improvement had more than one group activity. Although not quite expected, this finding makes sense in the context of marketing performance. When observing the groups in this study, there is a certain vitality that exists in groups that have functioning group activities. It gives groups an ongoing sense of identity and purpose that defines the group beyond the projects in which they are participating.

Furthermore, sustaining these activities requires the group to establish internal institutions to guide the effective coordination and mobilization of group resources. Such traits can be particularly useful for groups attempting to leverage group resources quickly to meet emerging market potentials.

**Age of group and maturity.** Although both age of group and maturity variables are shown to be statistically significant, the age of group variable is not *meaningfully* significant. As Table 4-8 shows, improved groups had 0.7 years more experience than groups with no improvement. The maturity variable, however, highlights distinct differences between groups that did and did not improve their market situation. The maturity of the group refers to whether groups were newly formed at the beginning of the project or already existing. Sixty-six percent of the existing groups (13 out of 20) were able to improve their market situation compared to less than half of the newly formed groups (43%). This finding is associated with the activity level variable as well, since those with maturity and functioning group activities will be better positioned to mobilize group resources and take advantage of emerging market opportunities than groups that have just started and lack such experience in both resource mobilization and coordination. For the newly formed groups that did improve their market situation, four groups did so by entering in contract arrangements with agribusinesses. Under this situation, they were less in need of a cohesive or mature group, and relied instead on the strength and connections of their leaders, as well on the right agro-ecological conditions to meet the agricultural companies' criteria and the PA's help in establishing these linkages.

### **Group Heterogeneity**

Table 4-9 shows the effects of the group composition variables on group marketing performance. Based on the five variables given, there is little difference in heterogeneity between those groups that did and did not improve their market situation. The one exception to

this is ethnic heterogeneity where there are notable differences with the improved group heterogeneity score of 0.24 compared to only 0.10 for those unimproved groups.

Table 4-9. Group heterogeneity variables

Explanatory variables	Marketing performance rating			Market improvement	
	0	1	2	No	Yes
Ethnic+	0.10	0.26	0.21	0.10	0.24
Religious	0.13	0.11	0.09	0.13	0.11
Educational	0.35	0.32	0.27	0.35	0.30
Gender	0.47	0.49	0.58	0.47	0.52
Wealth	0.23	0.25	0.25	0.23	0.25

\*\*\*p < 0.01, \*\*p < 0.05, \*p < 0.10, + approaching significance (p < 0.15)

It is difficult to give a definitive reason why ethnic diversity would put groups in a better position to improve their market situation. Overt ethnic discrimination does not seem to exist in the region. Perhaps diversity increases the likelihood of innovation, as well as expanding socio-political and economic networks. Indeed, the more unexpected finding here is how little the heterogeneity of the group affects marketing performance, particularly in the case of wealth heterogeneity.

### Market Access

Table 4-10 provides the results of the association between market access variables and marketing performance. There are two variables that have proven to be statistically significant when comparing the final factors of analysis and improved marketing performance. These are commodity types and partner agency. PA linkage also shows notable differences worth exploring.

**Distance to markets and road conditions.** An unexpected finding is that distance to markets and road conditions were not significant factors in group marketing performance. In the field of institutional economics, variables of market access are usually crucial factors to smallholder marketing success. It is argued that without these changes or improvements, the transaction and transportation costs remain too high for smallholders to become competitive in

an open market. The data support this thesis but only marginally. Groups with improved marketing performance are closer to the major markets by approximately 7 kilometers, and two-thirds of the groups with good road conditions improved their market situation. However, the data do not show any meaningfully or statistically significant differences between the groups with and without market improvement. None of the six groups with the most notable market improvement (i.e., having a MPR of 2) are located near good roads. Apparently, they were able to overcome these particular market access barriers through a combination of other factors, such as having a reliable water source, good lands, marketable crops, and effective internal institutions to mobilize group resources.

Table 4-10. Market access variables

Explanatory variables	Marketing performance rating			Market improvement		
	0	1	2	No	Yes	% Improved
Distance to market	31.73	22.54	27.33	31.73	24.05	
<u>Road conditions</u>						
Bad	6	2	3	6	5	45%
Average	6	5	3	6	8	57%
Good	3	6	0	3	6	67%
<u>Commodity types***</u>						
Cereals/Legumes	10	4	0	10	4	29%
Coffee	2	0	1	2	1	33%
Livestock	3	1	1	3	2	40%
Rice	0	1	1	0	2	100%
Vegetables/Fruit	0	7	3	0	10	100%
<u>Partner agency (PA)*</u>						
FAIDA	9	6	1	9	7	44%
TIP	6	7	5	6	12	67%
<u>PA linkage+</u>						
Linked	3	7	3	3	10	77%
Not linked	12	6	3	12	9	43%

\*\*\*p < 0.01, \*\*p < 0.05, \*p < 0.10, + approaching significance (p < 0.15)

**Commodity types.** The commodity types variable refers to the crops grown by group members that were put forward as a possible agro-enterprise venture. This variable proved to be statistically significant because certain crops have greater market potential, especially in local markets. Cereals and legumes, particularly corn and beans, are the traditional staple food crops

for many smallholder growers. When these staple food crops are grown on a large scale with an eye toward regional and international markets (i.e., Kenya and Uganda), they offer substantial market potential. But, most farmer groups lack both the production scale and the market contacts to exploit these regional and international markets. Only 4 out of 14 groups promoting cereals/legumes as an agro-enterprise improved their market situation. Even this finding is misleading, since two of these groups improved their market situation by entering in contracts with agribusinesses – one group growing artemisia and the other growing flower seeds – essentially replacing part of their corn and bean crop with these cash crops. The other two groups improved their market situation through corn: one by bulk storing its corn crop and fetching a higher price later in the season, the other by a combination of bulk purchasing (of hybrid seed and fertilizer) and collective marketing the harvest to a new buyer. These two groups succeeded because of their capacity to mobilize the required capital investments at the beginning of the growing season, which for most of the groups in this study is beyond their present capacity.

Another significant finding is that all ten groups promoting vegetables and fruits saw their market situation improve. The more obvious reason for these groups' success lies in the substantial market demand for these crops, but the less obvious reason is that it appears the PA trainings were particularly suited to exploit these commodities' market potentials. Trainings in such areas as cost-benefit analysis and negotiation skills allowed many of these groups to reorient their production to the more profitable vegetable and fruit crops and to use their newly acquired negotiation skills to bargain for higher prices. But these findings also point to the larger issue of agro-ecology and farming systems. Many farmers grow cereals and legumes because it is simply what the land can support, especially where there is no reliable water source, and they

must rely solely on rain-fed agriculture. This can be more clearly understood by distinguishing between those groups growing traditional food crops and those growing the other higher value and non-staple food crops. Only 29 percent of the groups growing staple food crops have a reliable water source while 70 percent of the groups growing non-staple food crops have a reliable water source. With the existing natural asset constraints, including even with the most well intentioned trainings, many of the groups growing cereals and legumes are simply not in a position to pursue a variety of marketing strategy alternatives that would allow them to exploit existing and emerging market potentials. These issues will be discussed further in the next chapter of findings.

**Partner agency and PA linkages.** As mentioned at the onset of this chapter, each partner agency had varying levels of success improving the marketing performance of the respective farmer groups. TIP fared better than FAIDA with two-thirds of its groups (67%) improving their situation whereas FAIDA saw less than half of its groups (44%) showing improvement. TIP also had five of its groups see large improvements in their market situation, whereas only one of the FAIDA groups showed large improvements. TIP and FAIDA together were involved in actively linking thirteen groups to other chain actors. Ten of these groups (77%) that were actively linked improved their market situation. More analysis will be given in the next chapter on the role of the partner agency and the type of marketing strategies employed either by groups on their own initiative or directly through PA linkages.

### **Wealth Revisited**

It was expected that wealthier groups would be better positioned to improve their market situation. But, bivariate analysis of wealth ranking and group marketing performance reveal only slight differences that were statistically insignificant. However, these findings show only a partial picture. The next table examines group wealth by taking the upper and lower quartiles,

and delineates between the poorer, average, and richer farmer groups. By making this demarcation, a clearer picture emerges in regard to wealth and other significant determinants of improved marketing performance. Tests of association were run on all the variables included in this study, with Table 4-11 showing the statistically significant results, along with a few other factors often associated with improved market access.

Table 4-11. Group wealth categories by statistically significant variables

Explanatory variables	Poorer (n = 8)	Average (n = 16)	Richer (n = 8)
<u>Marketing performance rating**</u>			
No improvement (0)	6	6	3
Some improvement (1)	2	9	2
Large improvement (2)	0	3	3
<u>Market improvement+</u>			
Yes	2	12	5
No	6	6	3
<b>GROUP ASSETS</b>			
<u>Reliable water source***</u>			
Yes	1	10	7
No	7	8	1
Land***	1.83	2.90	6.80
Altruism*	0.95	0.85	0.82
Community leaders**	0.43	0.48	0.69
Wealth heterogeneity***	0.29	0.25	0.18
<b>MARKET ACCESS</b>			
<u>Road Conditions**</u>			
Bad	3	6	2
Average	0	9	5
Good	5	3	1
Distance to markets**	19.50	27.39	35.50
<u>Commodity types***</u>			
Cereals/Legumes	5	5	4
Coffee	0	3	0
Livestock	2	3	0
Rice	1	0	1
Vegetables/Fruit	0	7	3
<u>Partner agency**</u>			
FAIDA			
TIP			

\*\*\*p < 0.01, \*\*p < 0.05, \*p < 0.10, + approaching significance (p < 0.15)

One of the most important findings is that the association between wealth and improved marketing performance is statistically and *meaningfully* significant. Only two of the eight poorer

groups improved their market situation, with neither group achieving large market improvements (i.e., MPR of 2). Some of the other associations point out the asset differences between rich and poor farmers, all of which position the richer farmer groups to leverage these resources to take advantage of existing or emerging market opportunities. For example, all of the wealthier groups except one have a reliable water source, whereas only one of the eight poorer groups has a reliable water source. As well, the richer farmer groups have on average 6.8 acres of land per member compared to 1.83 acres of land per member for the poorer groups. These natural asset advantages show some of the stark contrasts between the richer and poorer groups. Even the success of the two poorer groups can be attributed, at least partially, to the fact that both groups were also endowed with some natural assets. One group has access to irrigation and was able to increase its bargaining position with paddy rice production. The other group, even though it did not have access to a reliable water source, had enough land and the proper soil types to grow artemisia under contract arrangements.

Another finding is that the richer groups have a greater proportion of members that are also leaders within their communities. This gives advantage to the richer groups since community leaders increase both the political and social capital within the groups. As well, richer groups tend to be more homogeneous in wealth levels while the poorer groups are more heterogeneous. In one case, wealth heterogeneity was a crucial variable in the poorer group's ability to improve its market situation. This group was composed mainly of poor rice paddy growers, but had one fairly wealthy member, who had the means to go to the regional rice market to find better prices and information about quality requirements from the wholesalers. Armed with this information, the group was able to broker a better deal with the traders who came to their village to buy their rice. In many ways, wealth heterogeneity is an asset similar to community leaders – it opens

new avenues of information and other resources that may be closed to poorer groups without these attributes.

There were also significant differences between the richer and poorer groups in terms of altruism. Apparently, the wealthier groups exude more self-interested behavior with a mean score of 0.82, while the poorer groups show a greater level of altruistic behavior with a mean score of 0.95. Perhaps this speaks to the economy of affection being salient or operative among the poor. Given the fact that poorer groups have fewer resources and greater reliance on others – especially in times of need and shocks to their livelihood systems – it seems reasonable for group members to be less self-interested and more altruistic to one another in the hope that such behavior will be reciprocated.

The issue of commodity types emerges as important distinction between the poorer and richer groups. None of the poorer groups are involved in vegetable production; most of these groups grow cereals and legumes. Without water and other assets, most of the poorer groups are shut out from choosing other enterprise alternatives, making improvement to their market situation all the more difficult.

Road conditions and distance to markets variables turn out to be significantly different between poorer groups and richer groups, but in counter-intuitive ways. More of the richer groups in this study are situated further from the major markets and must deal with worse road conditions. But, these market access barriers do not serve as a major constraint, since these richer groups are capable of overcoming these market distances and road conditions by having at their disposal other crucial livelihood assets not found in most of the poorer groups (i.e., good lands, reliable water, and socio-politically connected members).

Finally, in confirmation of earlier findings, TIP has been working with more of the wealthier groups, which includes six out of the eight richer groups. On the exact opposite side of the spectrum, FAIDA has been working six out of the eight poorer groups. Neither TIP nor FAIDA specifically choose groups based on the perceived wealth of the group members, but it was not totally random that TIP ended up with richer farmer groups while FAIDA ended up with poorer groups. As discussed in a previous chapter, TIP and the district officials selected existing groups, or established new groups, to represent each of the wards in Arumeru district. With a great number of groups to choose from in each ward, a more conscious effort was made to select groups who grew crops with market potential. It is no coincidence that such “market potential” groups are richer. In contrast, FAIDA had much less say in the group selection process. Officials in Hai district made the decision that the AMSDP project would be an excellent complement to another government-sponsored program that involved improving farmer livelihoods by utilizing production-oriented strategies. This intervention was also delivered through farmer groups, and thus, became the main recipients of the AMSDP project. As seen in the above table, many of these groups lacked the requisite resources that would better position them to improve their marketing performance. Further analysis of the effect of these differences in the FAIDA and TIP groups in regard to improved marketing performance will be discussed in the next chapter.

### **Multiple Regressions Analysis**

While the bivariate analysis described above yields some important insights into the underlying factors to improved marketing performance, it cannot examine statistically the interactions between the explanatory variables. To do this, a two-stage multiple regression model was built with the first model consisting of the significant, and approaching significance, variables from the bivariate analysis. Table 4-12 shows the results of the first model.

Table 4-12. Regression model 1 for determinants of marketing performance

Explanatory variables	Model 1	
	<i>B coefficient</i>	<i>P value</i>
(Constant)	-1.469	0.013
Reliable water source	0.301	0.158
Education	0.094	0.244
Leaders by sex	0.867	0.016**
Activity level	0.217	0.012**
Maturity	0.444	0.015**
Ethnic heterogeneity	0.459	0.307
Staple food crops	0.459	0.025**
Partner agency	-0.097	0.636
PA linkage	0.427	0.027**
R-square	0.780	

\*\*\*p < 0.01, \*\*p < 0.05, \*p < 0.10, + approaching significance (p < 0.15)

In the analysis of this regression model, five out of the eight significant variables in bivariate analysis remain statistically significant. When taking in account the other variables, water is no longer statistically significant, nor are ethnic heterogeneity and partner agency. Model 1 reports an R-square of 0.78, which indicates that the inclusion of these independent variables explains 78 percent of the variance in the farmer group's marketing performance. This is a notable R-square but the model is still lacking some crucial variables that are likely to affect the marketing performance outcomes of farmers. Given the small sample size (34 groups), it is not possible to input the entire set of explanatory variables into a multiple regression model and still expect to find any statistical significance. To determine which variables to include in the model, the conceptual model guiding this research comes into play. As noted earlier, the conceptual model takes into account the theoretical considerations of cultural materialism, which in this case is represented by the infrastructure and the social structure of the model. The NGO intervention is also represented and considered. Based on the literature review of factors that should affect group marketing performance – and bolstered by the bivariate analysis findings – eight more variables have been added that most effectively represent the three factor domains. The final list

of 17 explanatory variables to be run in the regression model is shown in Table 4-13, categorized by Infrastructure, Social Structure, and NGO Intervention.

Table 4-13. Explanatory variables categorized by factor domains

Infrastructure	Social structure	NGO intervention
<i>Market access</i>	<i>Group assets</i>	Partner agency
Distance to market*	Wealth ranking*	PA linkage
Road conditions*	Education	
	Providers/Partners*	
<i>Agro-ecological factors</i>	Altruism*	
Staple food crops	Help trust*	
Reliable water source		
	<i>Group Compos./Characteristics</i>	
	Maturity	
	Leadership by sex	
	Activity level	
	<i>Group Heterogeneity</i>	
	Ethnic	
	Gender*	
	Wealth*	

\*Variables added to the multiple regressions model

The infrastructure domain takes into account the physical market access and agro-ecological factors, which are represented by four variables: distance to markets, road conditions, staple food crops, and reliable water source. The staple food crop variable collapses the commodity type variables into a single dummy variable that delineates between those groups that grow traditional staple food crops to those groups dealing in other commodities. A certain level of information is lost in this procedure but it is necessary to limit the number of variables in the regression model. The social structure domain takes into account several explanatory variables that represent group assets, group composition/characteristics, and group heterogeneity. Under the group assets heading, the providers/partners variable is used to represent *structural* social capital, and the altruism and “help” trust variables are used to represent *cognitive* social capital. The NGO intervention domain takes into account which PA the farmer groups worked with and whether or not the groups were actively linked to other chain actors in an effort to improve their market

situation. Table 4-14 shows the results of the original regression model, as well as the results of the new model, or model 2, after the inclusion of the new variables.

Table 4-14. Regression models 1 & 2 for determinants of improved marketing performance

Explanatory variables	Model 1		Model 2	
	<i>B coefficient</i>	<i>P value</i>	<i>B coefficient</i>	<i>P value</i>
(Constant)	-1.469	0.013**	-2.383	0.272
Reliable water source	0.301	0.158	0.737	0.043**
Education	0.094	0.244	-0.078	0.555
Leadership by sex	0.867	0.016**	1.157	0.034**
Activity level	0.217	0.012**	0.175	0.109+
Maturity	0.444	0.015**	0.638	0.012**
Ethnic heterogeneity	0.459	0.307	-1.088	0.158
Staple food crops	0.459	0.025**	0.512	0.030**
Partner agency	-0.097	0.636	0.118	0.652
PA linkage	0.427	0.027**	0.362	0.139+
Wealth Ranking			0.168	0.559
Help Trust			-0.837	0.075*
Altruism			2.291	0.080*
Providers/Partners			0.453	0.313
Gender heterogeneity			0.504	0.545
Wealth heterogeneity			1.651	0.337
Distance to market			0.006	0.459
Road conditions			0.023	0.886
R-square	0.780		0.868	

\*\*\*p < 0.01, \*\*p < 0.05, \*p < 0.10, + approaching significance (p < 0.15)

The addition of the eight variables strengthens the explanatory value of the regression model as represented by an increased R-square score. Whereas model 1 explained 78 percent of the variance, model 2 explains 86 percent of the variance in the marketing performance of farmer groups. Model 2 also increases the number of statistically significant explanatory variables. From the variables included in the first regressions model, leadership by sex, maturity, and staple food crops remain significant. Reliable water source, which was not significant in the first model, becomes significant again in model 2. This change in significance is attributed to the addition of other group assets variables – such as wealth ranking, altruism, and “help trust” – that

once accounted for make having a reliable water source an important asset for improved marketing performance. In a similar vein, when accounting for all the variables in model 2, PA linkages and activity level become less significant. Nonetheless, with p-values of less than 0.15 and the consequence of a small sample size, both variables cannot be ruled out and must remain important explanations for improved marketing performance.

In addition to these variables, “help trust” and altruism prove to be significant when accounting for all the variables in the model. But, whereas altruism is positively associated with improved marketing performance, help trust shows a negative association with improved marketing performance. Help trust refers to the extent that a group member is willing to help a fellow member if called upon. The fact that it is negatively associated with improved marketing performance is baffling because altruistic rather than self-interested behavior in the groups is positively associated with improved marketing performance. The interactions of all the explanatory variables prove that help trust is statistically significant, but this does not imply that it is *meaningfully* significant. As well, the earlier findings of bivariate analysis of this variable with market improvement show only slight mean differences. For altruism, the bivariate analysis shows no significant differences between those groups which improved their market situation and those which did not. However, unlike the trust variables, altruism proves to be statistically significant when the richer and poorer groups are compared. The finding is that altruistic behavior within groups is an important factor to improved marketing performance, where it functions as an enabling factor rather than a driving force for improved marketing performance.

The distinction between driving forces versus enabling factors directs attention back to the primary premise of the conceptual model and its basis in cultural materialism. Within the infrastructure domain, the two driving forces to improved marketing performance are determined

by the commodities being promoted as agro-enterprises (i.e., growing non-food staple crops) and whether or not the groups have a reliable water source to depend upon. The significant variables in the social structure domain represent largely enabling or complementary factors to the agro-ecological determinates represented in the infrastructure domain. These enabling factors in the social structure domain include: maturity of the group, number of group activities, proportion of male to female leaders, and PA linkages. Group maturity remains a statistically significant variable in explaining improved marketing performance. Even when accounting for all the other variables, newly formed groups struggled to improve their market situation. Obviously, it takes time for a new group to work out the informal or formal institutional mechanisms by which to guide group behaviors and actions toward successful collective action outcomes. Similarly, after taking account of the other factors, groups with more group activities (i.e., activity level variable) are positively associated with improved marketing performance. The reason for their success is the same as why newly formed groups have such difficulty. These groups already have in place the appropriate mechanism for mobilizing group assets and action, with confidence from previous positive experiences to see new initiatives carried out to their conclusion.

Sex of leaders also proved to be a significant factor from the regression analysis. This variable highlights the fact that groups with a larger proportion of male to female leaders were more positively associated with improved marketing performance. This finding bolsters the premise offered by the bivariate analysis that shows that women face specific marketing constraints that leave them at a structural disadvantage in pursuing alternative marketing strategies. A more thorough analysis of these gendered constraints will be addressed in the next chapter. Finally, PA linkages also remain a significant factor in successful group marketing outcomes, also to be explored in greater detail in the next chapter.

## Conclusion

Although there are additional findings in chapter 5, this chapter has shown that all four of the variables within the social structure domain (i.e., group maturity, activity level, proportion of male to female leaders, and PA linkages) represent enabling factors and *not* determining factors in groups' abilities to improve their market situation. Groups endowed with favorable agro-ecological factors, such as a reliable water source, good lands and soils, and crops with inherent market potential, are far better positioned to improve their market situation. When farmer groups are endowed with this core set of natural assets, many marketing strategy alternatives are made available to them; concomitantly, groups lacking in these natural assets will find their marketing strategy alternatives severely limited. It is from this perspective that variables in the social structure domain can play either an enabling or constraining role in a group's ability to take advantage of existing and emerging market opportunities. Further study findings are examined in chapter 5 relating to the PA's role in group marketing performance. The notion of determining versus enabling factors will be expanded upon in chapter 6 where the summary of findings and study conclusions are presented.

## CHAPTER 5 FINDINGS: PART II

The conceptual model guiding this study highlights three domains (infrastructure, social structure, and PA intervention) that are expected to affect group marketing performance. In the last chapter, analysis focused on how determining forces of the infrastructure (i.e., agro-ecological conditions, market access) and the enabling factors of the social structure (i.e., group assets, composition, characteristics) affected a group's ability to improve its market situation. This chapter focuses on the PA intervention domain by examining the effects of the partner agencies on group marketing performance. There are two principal sections to this chapter. The first section examines the extent that certain group attributes and assets are enabling or constraining factors in PA attempts to improve their respective groups' marketing performance. The second section utilizes qualitative data analysis techniques to examine the marketing strategies and the related collective action initiatives employed by the farmer groups to improve their market situation. This is done to determine the extent that certain group assets and attributes may affect a group's ability to engage in marketing strategy alternatives toward successful collective action outcomes.

### **The Effects of Partner Agencies on Group Marketing Performance**

The previous chapter of findings opened with a discussion of the differences in marketing performance between the PAs, so it is only fitting to ask why a greater number of TIP groups succeeded compared to FAIDA groups. As shown in Table 5-1, TIP fared better than FAIDA with two-thirds of their groups (67%) improving their situation whereas FAIDA saw less than half of its groups (44%) showing improvement.

Table 5-1. Partner agency by marketing performance

Explanatory variables	FAIDA	TIP	Total
<u>Marketing performance rating</u>			
No improvement	9	6	15
Some improvement	6	7	13
Large improvement	1	5	6
<u>Market improvement</u>			
Not improved	9	6	15
Improved	7	12	19

TIP also had five of its groups see large improvements in their market situation, whereas only one of the FAIDA groups showed large improvements. Some of the reasons for greater levels of marketing success can be understood by looking at differences between the farmers groups. A number of explanatory variables that showed statistical significance in bivariate and multiple regression analysis have been selected to reveal differences between the FAIDA and TIP groups. The explanatory variables are divided into the three following headings for analysis: group composition and characteristics; group assets; and market access.

Table 5-2 examines differences in group composition and characteristics. Beginning with education, it is clear that TIP worked with groups that were on average more educated than the FAIDA groups.

Table 5-2. Partner agency by group composition and characteristics

Explanatory variables	FAIDA	TIP	Total
Education	6.57	7.3	7.0
Activity level	0.94	1.39	1.18
<u>Level of groups</u>			
Village-level	16	9	25
Ward-level	0	9	9
<u>Maturity</u>			
Newly formed groups	5	9	14
Existing groups	11	9	20
Ethnic heterogeneity	0.22	0.15	0.18
Leadership by sex	0.46	0.67	0.57
<u>Gender categories</u>			
Female-only groups	3	0	3
Female-dominated groups	2	1	3
Male-dominated groups	2	6	8
Gender-balanced groups	9	11	20

TIP groups also were involved in more group activities. This is unexpected when considering that over half of the TIP groups were newly formed for this specific project. But, when looking closer at the data, nine mature groups for TIP had on average 1.88 activities, or essentially 2 activities per group. Furthermore, many of TIP's newly formed ward-level groups were combinations of previously existing smaller groups. A few of these smaller groups brought with them the activities they were already running and incorporated them into the ward-level group. In regard to the other variables, FAIDA had slightly more heterogeneous groups compared to the TIP groups; and TIP had a higher proportion of male to female leaders in their groups. This makes sense when considering that FAIDA worked with greater variety of groups in terms of gender composition, whereas TIP worked with only one female-dominated group and no female-only groups.

Table 5-3 considers the assets of the FAIDA and TIP groups. Although differences exist in the wealth rankings between the FAIDA and TIP groups, the more clear differences emerge when looking at the wealth categories. Six out of the eight poorer groups worked with FAIDA, while six out of the eight richer groups worked with TIP. It is a similar story with differences in water and land. Only six of the 18 FAIDA groups had a reliable water source, whereas the exact opposite was true for TIP with 12 of the 18 groups having a reliable water source. Likewise, TIP groups had on average 4 acres of land either own or rented compared to 2.93 acres for the FAIDA groups. There were only slight differences between the two groups in terms of the provider/partners, but the TIP groups did show marked differences in the number of community leaders as total percentage of group members.

Table 5-3. FAIDA and TIP farmer groups by group assets

Explanatory variables	FAIDA	TIP	Ave./Total
Wealth ranking	3.05	3.33	3.2
<u>Wealth categories</u>			
Poorer	6	2	8
Average	8	10	18
Richer	2	6	8
<u>Reliable water source</u>			
No	10	6	16
Yes	6	12	18
Land	2.93	4.00	3.50
Community leaders	0.42	0.57	0.51
Providers/Partners	0.84	0.79	0.81

To a certain extent, intra-group asset differences parallels those under the category of market access, which are listed in Table 5-4. There were no differences between the TIP and FAIDA groups in regard to distance to markets, and only minor differences in road conditions, with TIP groups having slightly better road conditions.

Table 5-4. Partner agency by market access

Explanatory variables	FAIDA	TIP	Total
Distance to market	27.25	27.61	27.44
<u>Road conditions</u>			
Bad	7	4	11
Average	5	9	14
Good	4	5	9
<u>Commodity types</u>			
Cereals/Legumes	9	5	14
Coffee	0	3	3
Livestock	1	4	5
Rice	1	1	2
Vegetables/Fruits	5	5	10
<u>Staple food crops</u>			
Yes	9	5	14
No	7	13	20

The main difference in the market access variables emerges with the type of commodities chosen to promote as an agro-enterprise. As mentioned earlier, these commodity types also represent each group's farming system and more broadly the agro-ecological conditions they must work under. The majority of FAIDA groups are part of a rainfall-dependent cereal/legume farming system, whereas only a minority of TIP groups falls in this farming system category. Both

groups are split evenly in rice and vegetable farming systems – both of which are predominately irrigation fed.

**Summary.** By looking at the findings as a whole, clear distinctions emerge between those groups working with FAIDA and those groups working with TIP. TIP groups are better educated, have more internal cohesion – as represented by the greater number of group activities and level of maturity –, and have more extensive socio-political networks afforded by having more community leaders. Furthermore, TIP groups are wealthier, with more land and reliable water sources, and commodities that have greater market potential. When comparing the success levels of TIP and FAIDA, it is very difficult to overlook these asset differences. Simply put, the TIP groups had at their disposal a greater share of collective resources that could be harnessed to affect positive change in their market situation. This does mean that these resources will be mobilized nor does it consider the PA trainings and the impact these trainings could have on group marketing performance.

**Partner agency training.** Although there were many similarities in the training delivery to the PA groups, a notable difference was how TIP and FAIDA decided to train groups on how to access market information. For TIP, this was carried out through the participatory farmer market research training. This training activity included field trips to area markets that literally “opened their eyes,” as one farmer participant explained, to the market possibilities within their region. By talking with wholesalers and retailers in these area markets, the TIP groups were able to get market information on prices of crops they grew or could grow; quality standards and packing requirements; and what crops were in demand and what crops were flooding the market. Many of the participants were also able to get contact numbers and begin to establish relationships with wholesalers and retailers in these area markets. Once armed with this market

and contact information, many TIP groups utilized different strategies for taking advantage of these market potentials.

The importance of market information was never lost to FAIDA but the provision of market information to its groups – through the use of market information boards in each village - was poorly executed. There was a great deal of miscommunication of who would provide the information. The task fell to the district marketing officer, but this person had no resources or logistical support to carry out this task adequately. Thus, the marketing boards quickly fell into disuse because the information was rarely updated and contained a great deal of useless information (e.g., prices of crops in markets that were not accessible; information on crops the groups did not grow, or not including information on crops the groups did grow). Near the end of this study, this problem was being remedied by providing groups with mobile phones and market contacts with the expectation that groups would take over the responsibility of acquiring the appropriate market information and putting it on the boards.

The manner in which the two PAs handled the market information training activities also exemplifies the PA's different development approaches. By utilizing a more participatory approach, that also was more empowering, TIP groups were better positioned to find market information on their own, whereas FAIDA's top-down approach left their groups struggling to access market information once the market information boards proved ineffective.

### **Marketing Strategies**

Apart from the training activities they received, each farmer group in the PA intervention came in with its own set of assets, experiences, and motivations, which ultimately led each group to respond in its own way to marketing obstacles and opportunities. For those groups advantaged with a substantial core of assets and attributes, a greater number of marketing strategy alternatives were available to them that ultimately put them in a better position to

improve their market situation. This section discusses the strategies employed by farmer groups to improve their market situation, and how certain group attributes played an enabling, and in some cases, a determining role in these groups' marketing successes.

The Ansoff matrix provides an excellent tool for examining the different marketing strategies employed by the farmer groups (Lundy et al., 2006). The matrix compares types of products and markets and identifies four general marketing strategies. As shown in Figure 5-1, farmer groups seeking market improvement with existing products and existing markets are pursuing a strategy of market penetration. Groups pursuing a strategy of market development are seeking new markets with their existing products. The strategy of product development occurs when groups start a new product enterprise but hope to find buyers in the existing market, whereas diversification occurs when groups start a new enterprise but seek to find new markets for this product. The Ansoff matrix is also a useful tool for assessing the level of risk associated with each marketing strategy, with market penetration representing the lowest risk option and diversification representing the highest risk option out of the four strategies.

	Existing Products	New Products
Existing Markets	<b>Market Penetration</b> <i>Low Risk</i>	<b>Product Development</b>
New Markets	<b>Market Development</b>	<i>High Risk</i> <b>Diversification</b>

Figure 5-1. Ansoff matrix of marketing strategies and level of risk

Through the course of this study, 19 of the 34 farmer groups improved their market situation through a total of 30 collective action initiatives, utilizing a variety of marketing strategies. In a number of cases, the farmer groups engaged in more than one collective action initiative, employing different strategies to achieve positive market outcomes. Table 5-5 lists the strategies employed and specific collective action initiatives utilized by the farmers groups.

Table 5-5. Marketing strategies and corresponding collective actions

Marketing strategy	Types of collective action initiatives	Number of initiatives
Market penetration	Increase bargaining power	6
	Reorganize production to avoid seasonal gluts	3
	Concentrate on more profit-making enterprises	1
	Bulk input purchasing/loans	1
	Crop storage	1
	Take over transport activities	1
Market development	Pursue new buyers/markets	4
Product development	Add value through packaging/labeling	1
	Cross-breeding to improve product quality	1
Diversification	Contract farming arrangements	8
	Switch to new enterprises with higher market potential	3

**Market penetration.** In the majority of collective action initiatives (13 out of 30), groups were able to take the crops they already grew and exploit existing market opportunities. The most frequent example was by increasing their bargaining power vis-à-vis traders and retailers. By taking the PA training on farm record keeping and cost-benefit analysis, these groups were able to determine the prices they should sell their crops in order to turn a profit. Furthermore, it took coordination within the groups to set prices that all members could abide by to increase their bargaining power. Another action that several groups were involved in was taking advantage of seasonal demands for certain crops by reorganizing their production schedule.

**Market development.** In four cases, groups actively sought new markets for their existing crops. This was a strategy widely encouraged by the PAs but one that was very difficult to implement. Many groups did go to surrounding area markets to seek out new markets and buyers for their products, but even in cases where there were interested buyers, it was very difficult for the groups to overcome transportation costs and other barriers, particularly market entry taxes.

**Product development.** This is the strategy of bringing a new product into an existing market, which is most often realized by doing post-harvest value adding activities. Only two groups improved their market situation through this action. There are several reasons why groups in this study either did not pursue or were not capable of pursuing this strategy. Even though it is an oft-mentioned strategy in the development literature, it is also one that can get many smallholders into a great deal of trouble. In most cases, adding value to a product requires considerable capital inputs (e.g., purchasing and maintaining a processing machine) and such expenditures without guaranteed returns amounts to a considerable level of risk. Since AMSDP did not have the financial support and most groups did not have the capital means, this was not a feasible short-term strategy for improving their market situation. One of the exceptions was a dairy processing group, which was made up of fairly wealthy members willing to provide the upfront capital to “re-create” their product. They made a wise investment by paying for product labeling, which led to increases in the prices they got for their product and opened the door to a wider markets and thus higher sales.

**Diversification.** This strategy can also be a risky venture for smallholders since it is a strategy based on producing a new product for a new market. Over one-third of the actions (11 out of 30) pursued by groups can be categorized as a enacting the diversification strategy. For

three of these groups, this strategy was chosen after finding that other area markets had certain demands that the group felt they could fill. Thus, they added these new enterprises to take advantage of these new market potentials. Eight of the other groups entered into contract negotiations with agricultural companies, and in one case with a Tanzanian university. These crops and their business partners are the following:

- Artemisia<sup>24</sup> for *African Artemisia Ltd.* – three groups
- Baby corn for *Gomba Estates* – three groups
- Flower seeds for *Maua Arusha* – one group
- Vanilla for *Sokoine University of Agriculture*<sup>25</sup> – one group

In all of these cases, the groups have been insured a guaranteed market (as far as any market can be guaranteed). At the very least, the groups can expect in the short-term to have increased incomes and a reliable market for these products.

Tables 5-6 and 5-7 delineate the strategies employed and the specific collective action initiatives utilized by FAIDA and TIP groups. During the course of the PA intervention, 7 out of 16 FAIDA groups improved their market situation. As shown in Table 5-6, these seven groups employed the marketing strategies of market penetration and diversification, which in turn yielded 13 collective action initiatives. Under the market penetration strategy, groups improved their market situation by bargaining for higher prices; reorganizing their production to heighten demand for their existing products; concentrating on more profit-making enterprises; and storing their corn harvest to take advantage of higher prices later in the season.

Four collective action initiatives were also pursued under the diversification strategy. This included arranging a contract with Sokoine University of Agriculture to grow vanilla in the test

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<sup>24</sup> Artemisia, or *Artemisia annua*, is a herbal plant that is processed into artemisinin, which is used in the treatment of malaria.

<sup>25</sup> Sokoine University of Agriculture is located in city of Morogoro (inland and west of Dar es Salaam). It is the only university in Tanzania that deals exclusively with the study of agriculture.

pilot phase of a project for them. The other three initiatives under the diversification strategy involved switching to new product enterprises to take advantage of emerging market opportunities. Two of these initiatives involved starting to grow mushrooms for a retail supermarket chain, and third initiative was the establishment of cultural tourism program that provided an opportunity for tourist to experience their farming lifestyles.

**Table 5-6. FAIDA group marketing strategies and corresponding collective actions**

Marketing strategy	Types of collective actions	Number of initiatives
Market penetration	Increase bargaining power	4
	Reorganize production to avoid seasonal gluts	3
	Concentrate on more profit-making enterprises	1
	Crop storage	1
Diversification	Contract farming arrangements	1
	Switch to new enterprises with higher market potential	3

One village that consisted of three groups in this study was involved in over half (7 out of 13) of these initiatives. Encouraged by PA trainings in such areas as farm record-keeping and cost-benefit analysis, these three groups had enough intra-group cohesion to reorganize their vegetable production to meet seasonal demands and the confidence to negotiate for higher prices for their products. The ability to reorganize production and to bargain for higher prices was bolstered by the fact that all three groups had a well-maintained irrigation scheme that provided water to their vegetable crops, which provided these groups a tremendous advantage over other farmers relying on rain-fed only agriculture.

Table 5-7 shows the strategies employed and specific collective action initiatives utilized by the TIP groups. During the course of the PA intervention, 12 out of the 18 TIP groups improved their market situation. TIP groups were involved in all four marketing strategies, which in turn yielded 17 collective action initiatives. Under the market penetration strategy,

groups improved their market situation by bargaining for higher prices; by starting a group loan program to provide members with fertilizer and hybrid corn seed; and by purchasing a vehicle to carry their vegetables directly to the market instead of relying on other transporters to do it for them. Four collective action initiatives were pursued under the market development strategy and this involved pursuing new buyers and markets for their existing products.

Table 5-7. TIP group marketing strategies and corresponding collective actions

Marketing strategy	Types of collective actions	Number of initiatives
Market Penetration	Increase bargaining power	2
	Bulk input purchasing/loans	1
	Take over transport activities	1
Market Development	Pursue new buyers/markets	4
Product Development	Add value through packaging/labeling	1
	Cross-breeding to improve product quality	1
Diversification	Contract farming arrangements	7

Two initiatives were also undertaken in the product development strategy and this involved one group investing in new packaging and labeling for its processed dairy products. The other initiative involved a group investing in the cross-breeding of traditional chicken varieties with “modern” ones, which in turn allowed this group to fetch higher prices in the local market. Finally, seven groups pursued the diversification marketing strategy by getting involved in contract farming arrangements with agribusinesses.

### **Risk Assessment of Marketing Strategies**

Every group bears a level of risk by engaging in collective action initiatives to improve their market situation. As shown previously in the Ansoff matrix, market penetration and market development strategies represent lower risk options because they do not entail switching to new enterprises. These options allow groups to use their existing resources and maximize them to

their full effect, and thus minimizing the amount of risk. As group strategies move to new product development and diversification, these represent higher profit options and groups are sometimes tempted, and often urged by change agents, to pursue these strategies. But the level of uncertainty of the outcomes rises considerably as groups switch to new products they are unaccustomed to growing, and even more so when they are being grown for markets they know little about. With this heightened level of uncertainty also comes a greater level of risk, especially since groups must often make substantial resource investments in financial capital, labor, and land in order to achieve these strategies.

By utilizing this risk assessment tool, it is possible to assign each group's collective action initiative a risk score on a scale of 1 to 4, with lower scores representing lower risk initiatives and higher scores representing higher risk initiatives. Each initiative has already been categorized by a certain market strategy, and in many cases, assigning them a risk score based on this is more than adequate. However, there are some marketing initiatives that are inherently more risky, therefore, it was important to determine the extent of risk of each initiative and assign the appropriate risk score. For example, one group purchased a vehicle to carry its vegetables directly to the market instead of relying on other transporters to do it for them. This group is pursuing a market penetration strategy, in which it has shortened the market chain by taking their existing product directly to the existing market. However, unlike many other market penetration strategies, this one entailed considerable capital investments, and thus makes this strategy much riskier albeit one which has led to greater profitability. Likewise, some diversification strategies are less risky than others, particularly when it deals with the specific products and markets.

A good example comes from comparing those groups growing mushrooms for a retail supermarket chain, and those groups growing artemisia for an agribusiness. Mushrooms are less risky since they require minimal investment in terms of financial capital and land, whereas growing artemisia requires substantial investments in inputs (seedlings, fertilizer, pesticides) and land. Individuals within these groups were required to commit at least two acres of their land to artemisia production, land that usually was used for staple food crops like corn and beans. When considering issues of food security, it is clear that artemisia production poses a considerable risk, far greater than those entering into mushroom production. With these considerations taken into account, Figure 5-2 shows the level of risk undertaken by the FAIDA and TIP groups when pursuing collective action initiatives to improve their market situation.

	Low risk			High risk	Mean risk score
	1	2	3	4	
FAIDA	7	2	4	0	1.77
TIP	2	5	3	7	2.89

Figure 5-2. Risk scale by collective action initiative

There are some notable differences in the level of risk undertaken by the FAIDA and TIP groups. The majority of the FAIDA groups were involved in marketing initiatives that entailed a lower level of risk, whereas the majority of the TIP groups were involved in marketing initiatives that carried a much higher level of risk. In the short-term, these riskier initiatives have led to successful marketing outcomes for the TIP groups, especially in terms of profitability. But what cannot be surmised within the scope of this study is whether these short-term gains will lead to longer-term positive outcomes to the livelihoods of these farmers. Nonetheless, issues of sustainability and food security within the project cycle of this intervention do deserve further attention, and therefore will be revisited in the conclusion chapter of this study. For the time

being, it is important to look at the reasons why such strategies were pursued by analyzing the role of the PA in promoting certain strategies as well as to analyze group assets and attributes that enabled groups to pursue certain marketing strategies, whether by their own initiative or through direct PA linkages.

### **Partner Agency Linkages and Group Initiatives**

Through the course of the group strengthening and marketing skills trainings, PAs suggested a number of marketing strategies that the farmer groups could pursue to improve their market situation. For example, by showing groups how to keep better farm records of production costs, the PAs urged groups not to accept passively the prices offered by buyers, but to bargain aggressively for prices that would provide higher margins. The PAs also urged groups to seek out market information so that they could be more aware of quality and quantity demands of the market. Armed with this market information, groups would be able to reorient production schedules or store crops in order to avoid seasonal gluts, as well as to produce new crops to meet existing or emerging market demands. Also, by giving trainings on contract farming, the PAs urged the farmer groups to pursue agribusinesses in their respective areas, as well as to pursue new market buyers where contractual or verbal agreements could be reached.

There were a number of enabling factors that made it possible for some of the groups to initiate marketing strategies without the direct involvement of the PAs. There were also a number of determining factors that made it possible for the PAs to get directly involved in linking farmer groups to agribusinesses and other market chain actors. Table 5-8 shows marketing strategies in terms of groups' own initiatives versus PA linkages. A total of 21 groups employed marketing strategies on their own initiative that led to successful marketing performance outcomes, with FAIDA groups involved in 10 initiatives and TIP groups involved

in 11 initiatives. By employing strategies that primarily dealt with exploiting the market potential of existing products, both TIP and FAIDA groups pursued far less risky ventures.

Table 5-8. Marketing strategies by own initiative and PA linkage

	Market penetration	Market development	Product development	Diversification	Total
<i>Own initiative</i>					
FAIDA	9	0	0	1	10
TIP	4	4	1	2	11
<i>PA linkage</i>					
FAIDA	0	0	0	3	3
TIP	0	0	1	5	6
Total	13	4	2	11	30

This is to be expected given the nature of the PA intervention. The intervention's main component involved human capacity skills training and did not include any form of financial or in-kind assistance to the groups. Without this assistance, it was difficult for many of the groups to pursue product development and diversification strategies that by their very nature require substantial upfront resource investment.

Although the PAs did not provide direct capital assistance to the groups, they did attempt to link some of the farmer groups to other market chain actors. Table 5-8 shows that FAIDA was involved in three and TIP was involved in six market linkages. FAIDA linked two groups to a mushroom input supplier that provided these two groups with production training in agronomics and crop husbandry. FAIDA then assisted the groups to find a buyer for their product, which ended up being a retail supermarket chain. FAIDA linked the third group to Sokoine University of Agriculture in which they got involved in a vanilla production test pilot project. The table also shows that TIP was involved in linking six groups to other chain actors. Five of these linkages fit with the diversification strategy and involved TIP linking three of these groups to an agribusiness to grow artemisia, and the two other groups linked to an agribusiness

to grow baby corn. TIP also assisted a dairy-processing group to secure a company that was capable of making labeling and packaging for their dairy products.

**Market failures.** Table 5-8 shows how FAIDA and TIP were successful in linking their groups to other market chain actors, but it does not show instances where market linkage attempts failed, and in fact, both PAs had their share of failures. In one case, the PA linked four groups – two of which are in this study - to an agribusiness involved in processing safflower into cooking oil. The groups reached a contractual arrangement with the agribusiness whereby groups would assume the land, input, and labor costs, and the agribusiness would provide training on growing safflower, along with safflower seeds, which would be deducted from the final sale of their harvest. Because these farming groups did not have the appropriate lands to grow safflower, the groups pooled their existing resources to rent land with the proper soil type and hired a farmer to prepare and plant the crops using a tractor. Approximately 100 acres were planted with safflower with per acre costs of renting land, land preparation, and planting coming to 14,000 Tanzanian shillings (*TShs*) per acre, or a total investment of *TShs* 1.4 million for the four groups.<sup>26</sup> The groups expected to reduce future costs by doing the weeding and harvesting by hand. Unfortunately, they never saw the fruits of their labor. Weather is the greatest uncertainty that a farmer faces, and these farmers gambled on a good rainy season. But the expected rains never came; the crop failed along with their *TShs* 1.4 million investment.

In another case, the PA assisted two of their groups in improving their dairy milk sales by directly linking them to Brookside Dairy, a processing/packaging company based out of Kenya with a number of dairy plants in Tanzania. The two parties reached a verbal agreement whereby Brookside would assume the transportation costs by picking up their milk in a specified

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<sup>26</sup> During the time of the study, the exchange rate was around 1 US dollar for 1,300 Tanzanian shillings. This means the groups' total investment approximated \$1,076, which comes to \$269 invested per group.

collection point in the village. Brookside would also pay the group *TShs* 300 per liter of milk, which was *TShs* 50 more than the price that milk traders usually offered the groups.

Unfortunately, this new market arrangement was short-lived. The milk traders – functioning as rural assemblers by going from one village to the next, buying milk and then selling it to milk processors like Brookside – became increasingly agitated from the lost revenue through the direct farmer group sales to Brookside. According to one of the farmer groups, the milk traders threatened Brookside that they would burn their factory down unless they stopped buying directly from the dairy farmers. There is no way to confirm this somewhat outlandish accusation but the fact of the matter is that after a few months, Brookside suddenly broke their marketing agreement. Brookside was still willing to buy their milk at *TShs* 300 per liter but they were no longer willing to assume the transportation costs. The groups would have to figure out a way to get their milk to the processing plant on their own. But, neither of the dairy groups had the capital capacity to do this. Thus, both groups were forced to return to the pre-existing marketing channels that involved the agitated milk traders. For one group, this meant reverting back to the *TShs* 250 per liter of milk. But, for the other group, the relationship between them and the milk traders had reached such a level of animosity that the milk traders in their area refused to pay more than *TShs* 200 per liter of milk. Consequently, the group found itself in a *worse* position than if the PA intervention had never occurred.

Both of these cases point to some of the inherent dangers in promoting market-oriented interventions. The safflower case exemplifies the inherent risks involved when pursuing a diversification strategy, especially one that is dependent on factors completely outside of a group's control (i.e., the weather). The dairy intervention by TIP is a classic example of a marketing penetration strategy that attempts to cut out the “middleman” to increase the farmer

groups' marketing margins. The danger with this strategy is that those actors suddenly cut out of the market chain are unlikely to passively acquiesce to these new sets of market arrangements. It is *now* their livelihoods being threatened, and as seen in this example, the dairy traders simply initiated their own strategy to restore the market chain back to their advantaged position.

Both of the dairy groups were clearly frustrated by the turn of events that put one group right where it started and the other group in a worse position. Faced with these results, neither of the groups attempted to pursue any other initiatives to improve their market situation. Of the two groups that initiated the safflower enterprise, one refused to take any more risks and came uninterested in trying to pursue any other marketing strategies. The other group, however, bounced back from this marketing failure and continued to pursue other strategies, and ultimately it succeeded in improving its situation by storing its corn harvest, and by growing mushroom for a retail supermarket chain. By the end of this study, this group was in negotiations *again* with the safflower agribusiness to start production for the next season. The ability of this group to continue to pursue new market opportunities, even when hit by failure, begs the question of what group assets and attributes did this group possess that made them more resilient than other groups. In an effort to answer this, the next section compares group assets and attributes to the types of marketing strategies employed by the groups.

### **Marketing Strategies and Explanatory Variables**

Although it is the intention of this study to look at all the variables and their associations with marketing strategies, the following discussion is primarily limited to the least and the most risky marketing strategies – market penetration and diversification, respectively. This is due to the fact that it is difficult to draw generalizations from a sample that included only four groups pursuing market development strategies and only two groups pursuing product development strategies. Table 5-9 compares marketing strategies to certain group composition and

characteristic variables. A noteworthy finding is that groups with a higher proportion of community leaders and groups with a greater number of past relationships with providers/partners pursued diversification strategies. This fits with the fact that external change agents (i.e., agribusinesses, agricultural extension and community development officers, NGOs) often approach community leaders when looking to start new projects or enterprises, particularly when introducing new products and new market opportunities.

Table 5-9. Marketing strategies by group composition and characteristics

	Market penetration	Market development	Product development	Diversification
Community leaders	0.52	0.48	0.43	0.61
Providers/Partners	0.73	0.71	0.80	0.95
<u>Maturity</u>				
Newly formed groups	3	0	1	4
Existing groups	10	4	1	7
<u>Gender categories</u>				
Female-only	1	0	0	2
Female-dominated	0	1	1	0
Male-dominated	3	2	1	3
Gender-balanced	9	1	0	6

There are also important gender implications to these findings. As noted earlier, women are more affected by marketing obstacles than their male counterparts. These constraints should also reflect certain difficulties in pursuing marketing strategy alternatives. One gender-specific constraint put forward previously was that female and female-dominated groups face additional marketing obstacles when it comes to searching for and accessing new markets for their existing products, and possibly even more so in pursuing new products, as would be found under contract arrangements. Thus, there are important insights to be gained by comparing the gender categories and marketing strategies utilized by different groups, especially at it pertains to how female-only and female-dominated group are capable of overcoming gender-specific marketing obstacles.

Two female-only groups and one female-dominated group accomplished the five collective action initiatives shown in Table 5-9. One female-only group was involved in the marketing strategy of diversification by linking with an input-supplier to grow mushrooms. It was able to pursue this market opportunity because FAIDA played a direct role in this market linkage. Thus, direct intervention by an outside agent is one effective way to overcome gendered marketing obstacles.

The other female-only group, one of the wealthiest groups in this study, also pursued a diversification strategy but without outside assistance. It consists of a small cadre of women from the same church who initially invested in a solar dryer to produce dried fruits and vegetables. Given that most members in this group are wealthy, they represent a truly different “class” of female farmers. These women are freed up from many of the culturally gendered roles of production and reproduction, as well as having greater access to the socio-political networks usually dominated by men. As such, this group did not need to overcome some of the gendered obstacles most often faced by women farmers; these obstacles simply did not apply to them. Their diversification strategy was also quite unique. Their “new” product was themselves and the “new” market was tourists. Through a connection with a hotel to which some women members sell handicrafts, the group established a cultural tourism program in which hotel guests accompany the women to their farms to experience “rural life.” Tourists see their gardens, learn how they process the dried fruits and vegetables, and see some of their handicrafts. The tour finishes by serving visitors a traditional meal at a group member’s home. This enterprise has become an excellent revenue source for the group and requires very few capital inputs. The one exception to this is time – a resource that is more often the domain of men but also one that these group members could afford given their wealth status.

The female-dominated group represented in Table 5-9 provides another example on overcoming gendered marketing obstacles. The group originally started as a female-only group and has been involved since its inception in processing cow milk into a variety of dairy products (mainly yogurt and cheese). Having saturated the local market with its product, there was the need to expand into other area markets. This would require group members to spend a considerable amount of time away from their homes in order to find new buyers. Given the fact that these women were responsible for the majority of their households' reproductive and productive activities, the group made a strategic decision to allow some men to join the group. With more time on their hands and wider vertical networks, the men fulfilled the task of finding new buyers for the group's dairy products. Through the course of the PA intervention, the group was able to continue to improve its market situation by pursuing two marketing strategies that led to increased prices and sales of the dairy products. The group increased the price by pursuing a product development strategy by investing in package labeling that allowed them to fetch higher prices from retailers in local markets. The group also pursued a market development strategy where members found new buyers outside the local markets.

Returning to Table 5-9 and the other variables, newly formed groups were almost exclusively involved in two strategies - market penetration and diversification. Three out of the four groups involved in diversification strategies did this through contract arrangement with the artemisia agribusiness, with the fourth group involved in growing mushrooms for a supermarket. As newly formed groups, all four benefited from direct linkages set up by their respective PAs. The PAs were able to set up these arrangements, particularly in the case of artemisia, because these groups met certain agronomic criteria set out by the agribusiness (e.g., proper soils, available lands). But, what was not taken into account – neither by the PA or artemisia

agribusiness – is whether or not these newly formed groups had the *institutional* capacity to make artemisia production a viable and sustainable agro-enterprise. The institutional capacity in this case refers to a group’s ability to guide and regulate the behavior of its members so they are capable of dealing with the myriad of problems that arise out of any contractual arrangement depending on group cooperation (e.g., inability of certain members to meet contract demands; side-selling by group members; inequitable distribution of the benefits). These are issues that face any group involved in a collective action initiative. But, for newly formed groups with largely untested internal institutions, to pursue a diversification market strategy greatly increases the risk level of the endeavor. From a food security standpoint, this becomes all the more worrisome when such groups lack the requisite assets to absorb the shocks of market failure. With this in mind, the discussion turns to some of these “requisite” assets, such as group wealth, water, and land and how these variables affect the marketing strategy alternatives available to the groups.

Table 5-10 compares selected group assets with the type of marketing strategies pursued by the groups. In terms of wealth categories, only two of the poorer groups were successful in implementing collective action initiatives. One was able to do this through the market penetration strategy and the other through the diversification strategy. This is similar to the finding of the average-level wealth groups whereby the majority of these groups (15 out of 20 groups) were involved in either market penetration or diversification strategies. The market penetration strategy does not require significant capital investments or much risk-taking. Through training assistance and their own initiatives, these groups were able to exploit existing markets with products they already grew. The strategy of diversification, however, can be risky since the new crop is being grown for a new and sometimes untested market. This strategy was

open to some of the poor-to-average groups based on contract arrangements with agricultural companies. Since these companies were willing to make the initial capital investments – in the form of seed, seedlings, fertilizer, chemical inputs and technical training – several of the poorer-to-average groups were able to engage in this marketing strategy.

Table 5-10. Marketing strategies by wealth, water, and land

	Market penetration	Market development	Product development	Diversification
<u>Wealth categories</u>				
Poorer	1	0	0	1
Average	9	3	2	6
Richer	3	1	0	4
<u>Reliable water source</u>				
No	2	0	1	3
Yes	11	4	1	8
Land	3.86	3.31	4.67	3.20

However, these groups have also put themselves into a precarious position wherein they are solely dependent on the agricultural companies for their continued success. This strategy works for many of the wealthier groups, since they often have the assets to buffer or sustain the losses that may occur in contractual or market failures. The same cannot be said for the poorer groups, since any mishaps in this market could have severe livelihood consequences (e.g., food security) for these members and their families.

Comparing marketing strategies to groups with and without a reliable water source also reveals similar findings to the wealth category. Only three out of the eleven groups with a reliable water source were able to pursue successfully the diversification strategy. Access to a reliable water source represents one of the major constraining factors in a group's pursuit of marketing strategy alternatives, especially when it pertains to diversification. A reliable water source is often a prerequisite for a farmer to be successful in switching to more profitable enterprise. Indeed, the findings of this study show that access to a reliable water source was necessary precondition before agribusinesses were willing to enter into contract negotiations for

planting many of the commodities mentioned earlier (i.e., baby corn, flower seeds, and vanilla). Even in the case of the artemisia agribusiness – in which access to reliable water source was *not* a precondition, – the company still selected production areas based partially on area percentages of rainfall sufficient to support their production demands. The artemisia company also selected their production areas based on proper soil types and the availability of land. This brings up another point that cannot be adequately represented in the above table. Pursuing a diversification strategy also requires that groups have available lands *and* the appropriate lands (i.e., proper soil types and fertility, altitude limitations, etc.) to meet the agronomic requirements of the product. These agro-ecological factors often play a determining factor on what type of strategies a group will be able to pursue.

Table 5-11 clarifies this point by comparing selected market access variables with the types of marketing strategies pursued by the groups. When comparing market penetration to diversification strategies, distance to market and road conditions do not seem to play a determining role in the types of marketing strategies employed, especially in the case of diversification strategies that involve contract arrangements with farmers groups.

Table 5-11. Marketing strategies by market access variables

	Market penetration	Market development	Product development	Diversification
Distance to market	28.23	22.25	18.50	27.00
<u>Road conditions</u>				
Bad	2	2	1	2
Average	10	2	1	4
Good	1	0	0	5
<u>Commodity types</u>				
Cereals/Legumes	2	1	0	3
Coffee	0	1	0	0
Livestock	1	1	2	0
Rice	2	0	0	0
Vegetables/Fruits	8	1	0	8

Although agribusinesses are always concerned that contracted farmers are market accessible (i.e., close to major roads and market outlets), the agribusinesses in this study – particularly the baby corn and artemisia companies – were not overly concerned about these factors. Instead, they were far more interested in finding the proper agro-ecological conditions in which their products could thrive. This moves the discussion to the commodity types, which, in turn, represents the existing farming systems of the respective farmer groups.

Starting with the cereals/legumes, it has already been mentioned that pursuing any marketing strategy with these commodities are difficult since many of the farmer groups lack the production scale to tap into potential regional and international markets. Four groups utilized six collective action initiatives that yielded improved market situations. However, only two of these groups truly improved their market situation by promoting cereals/legumes as an agro-enterprise. The first group (Group A) was involved in two marketing strategies that yielded market improvement for its corn crop. The first strategy involved market penetration wherein the group established a group activity by which members could get input loans of hybrid corn seed and fertilizer to be repaid at the end of the season. The second strategy involved market development wherein the group collectively marketed its corn harvest, plus the harvest of other farmers in the area, to wholesalers in a regional market. The one other group (Group B) that saw market improvement with its corn harvest did this by pursuing a market penetration strategy in which the members bulked and stored their corn harvest and fetched a higher price later in the season.

Given that many farmer groups in this study fell within the commodity category of cereals/legumes, an important question is why did not more groups pursue such marketing strategies like the two groups just discussed, especially given the fact that this was one strategy alternative that both FAIDA and TIP urged groups to pursue. The answer resides in the fact that

both groups have a combination of group attributes and assets that made them uniquely positioned to pursue these strategies. Group A was formed by a core of young farmers, all of whom attended the same secondary school and took a business-minded approach to farming and marketing from the onset. Before the PA intervention, the group was already running an informal rotating savings and credit program for members when they had an urgent need for capital (i.e., to buy inputs, pay for school fees, a funeral, wedding, etc.). With guidance from the PA, the group introduced the strategy of bulk purchasing inputs with post-harvest repayments. The group implemented this new activity with little difficulty because the necessary internal institutions were already in place to see that this activity would function properly.

Furthermore, through the cultivation of hybrid corn and use of commercial fertilizers, Group A was able to obtain a certain level of scale through increased yields and by buying from other local farmers, both of which made it attractive for wholesalers to come to village and buy from them directly. This group is one of the wealthier groups in this study, and that made it possible for them to achieve the proper scale by having the available financial capital to pay on spot cash for other farmers' corn harvest. As for Group B, they are also one of the wealthier groups in the study, and the group succeeded with the strategy of corn storage because of its capacity to mobilize the required capital investments at the beginning of the growing season, that is beyond the present capacity of most of the groups.

Another point highlighted in Table 5-11 is the strategies pursued by those growing vegetables and fruits. Ten farmer groups were responsible for the 17 collective action initiatives that yielded improved market situations. These ten groups comprise all the vegetable/fruit growers in this study and clearly the commodity itself played a significant role in their market success. There is substantial market demand for these crops, and groups with a reliable water

source, which included nine out the ten groups, had the ability to reorganize their production schedule in order to overcome seasonal gluts. This is also where the PA intervention of group strengthening and marketing skills training proved most successful. Trainings in such areas as cost-benefit analysis and negotiation skills allowed many of these groups to refocus their production to the more profitable vegetable and fruit crops and to use their newly required negotiation skills to bargain for higher prices. The combination of favorable agro-ecological conditions and well-suited PA trainings made pursuing market penetration strategies particularly successful. There was also the added advantage that these conditions made it favorable for vegetable/fruit groups to pursue diversification strategies under contract arrangements. As mentioned earlier, the agribusinesses involved in the production of baby corn, flower seeds, and vanilla set out as one of their preconditions that groups have a reliable water source. Even the one vegetable group without a reliable water source was still able to secure a contract with the artemisia agribusiness because it had other favorable agro-ecological conditions that were well suited for production of this crop.

### **Conclusion**

The assets and attributes of the PA groups were compared to ascertain the reasons behind the greater level of marketing success of TIP groups. The findings show that TIP groups on average are wealthier, with more land and reliable water sources, and grow commodities that have greater market potential. These determining factors of group marketing performance were enhanced by the fact that TIP groups also have greater internal cohesion and institutional capacity, including more extensive socio-political networks, compared to the FAIDA groups. All these advantages, including better PA training in accessing market information, positioned TIP groups to utilize a variety of marketing strategies to improve their market situation. The chapter also examined the different marketing strategies and collective action initiatives

employed by the PA groups. Given their infrastructural and social structural advantages, TIP groups utilized a variety of marketing strategies and collective action initiatives that yielded successful outcomes, whereas the majority of the FAIDA groups were limited in their marketing alternatives, settling on more risk-adverse strategies.

By concluding the discussion of all the pertinent explanatory variables associated with marketing strategy alternatives, the next chapter expands on the discussion of enabling and constraining factors by first summarizing the findings as they relate to the research objectives and study hypotheses and then by examining the theoretical implications in the study conclusions.

## CHAPTER 6 SUMMARY OF FINDINGS AND STUDY CONCLUSIONS

The chapter begins by revisiting the study objectives and hypotheses to ascertain the extent that these can be supported or rejected based on findings of the two previous chapters. Then, in a section on the study conclusions, the findings are related back to the theoretical underpinnings guiding the study to ascertain the contribution of theory to understanding the underlying factors that enhance or constrain a group's ability to improve its market situation.

### **Summary of Findings: Hypotheses Revisited**

Having analyzed a number of explanatory variables that affect marketing performance, and the pertinent factors affecting the type of marketing strategies pursued by groups and their respective PAs, it is appropriate to return to the study objectives and hypotheses. The following discussion proceeds by restating each of the research objectives along with the related hypotheses and the variables used to test them. The study findings are then applied to each set of hypotheses to examine the extent that they can be supported or rejected.

#### **Objective 1: Farmer Group Assets**

The first objective is to assess the extent that certain livelihood asset configurations (i.e., natural, physical, financial, human, and social) will affect the group's ability to improve its market situation. Hypotheses relating to the group asset objective include:

- **Hypothesis 4f – Collective action literature:** Farmer groups with lower levels of poverty among members will be better positioned to improve their marketing performance.

The first hypothesis was tested by using the following variables: Wealth ranking; Reliable water source; Land; Education; Commodity types. There are also more specific hypotheses dealing with different aspects of social capital. The first three hypotheses are concerned with cognitive social capital and the fourth hypothesis is concerned with structural social capital.

- **Hypothesis 3a – Social capital literature:** Farmer groups with a high level of trust among members will be better positioned to improve their marketing performance.
- **Hypothesis 3b – Social capital literature:** Farmer groups that exude more altruistic rather than self-interested behavior among members will be better positioned to improve their marketing performance.
- **Hypothesis 4c – Collective action literature:** Farmer groups with higher level of interdependence among members will be better positioned to improve their marketing performance.
- **Hypothesis 3c – Social capital literature:** Farmer groups with more ties to other organizations in and outside of their community will be better positioned to improve their marketing performance.

These hypotheses were tested using the following variables: General trust; Help trust; Money trust; Altruism (as indicators of cognitive social capital); and Community leaders; Providers/Partners; Other groups (as indicators of structural social capital).

Beginning with hypothesis 4f relating to levels of poverty, regression analysis highlighted the importance of natural assets - water and commodity types - as significant and meaningful factors toward improved marketing performance. These findings were given added weight when considering how these assets, along with group wealth and other agro-ecological factors, provide groups with an array of marketing strategy alternatives to exploit existing and emerging market opportunities. In the bivariate analysis, education as an indicator of human capital proved to be a statistically significant in relation to group marketing performance. But, education had no effect on group marketing performance when accounting for the other variables included in regression analysis. Thus, with the exception of human capital, there is sufficient evidence to support the hypothesis that farmer groups with lower levels of poverty – in the form of physical, financial, and natural assets – will be better positioned to improve their marketing performance.

The same conclusion, however, cannot be put forward in regard to the social capital hypotheses, whether in the form of structural or cognitive social capital. In the bivariate

analysis, neither the proxy indicators for cognitive social capital (i.e., trust and altruistic behavior) nor the proxy indicators for structural social capital (i.e., community leaders, other groups, and providers/partners) were proven to be statistically significant factors to improved marketing performance. In regard to the trust variables, the bivariate analysis showed no indication that groups which showed more trust in their members were better positioned to improve their market situation. In fact, regression analysis showed that “help trust” is negatively associated with improved marketing performance. These findings do not, however, reject the hypothesis that trust among members is an important attribute toward successful collective action initiatives. As the findings of chapter 4 revealed, practically *all* groups have a high level of trust among their members and thus group trust cannot be completely ruled out as an important factor.

In regard to group altruism, bivariate analysis showed no association to improved marketing performance. But, when inputted in the multiple regressions models, altruistic behavior is statistically significant when accounting for the other explanatory variables. These findings suggest that altruistic behavior is an enabling factor in group marketing performance. Groups that exude more altruistic behavior to their fellow members increases their stock of bonding social capital and thus their ability to mobilize existing resources toward successful collective action outcomes.

In regard to the structural capital variables, even though the variables representing structural social capital were not statistically significant in the bivariate and regression analysis, findings in chapter 5 support the argument that groups with a higher proportion of community leaders, coupled with a greater number of past relationships with providers/partners, increases the likelihood of getting access to “new” market resources (i.e., market information, services, inputs, etc.). But, given the fact that structural social capital is an enabling and not determining

factor, the extent that a group can exploit these new market resources will largely depend on the combination of financial and natural assets available to the group.

In summary, the social capital hypotheses can be partially supported. Cognitive social capital in the form of altruistic behavior and structural social capital in the form of community leaders and ties to providers/partners act as enabling – but not determining – factors in a group’s ability to improve their market situation.

### **Objective 2: Farmer Group Composition**

The second objective is to assess the extent that certain group composition attributes will affect a group’s ability to improve its market situation. Hypotheses relating to the group composition objective include:

- **Hypothesis 4d– Collective action literature:** Farmer groups with heterogeneity of endowments will be better positioned to improve their marketing performance.
- **Hypothesis 4e – Collective action literature:** Farmer groups with homogeneity of identities will be better positioned to improve their marketing performance.
- **Hypothesis 2a – Feminist economics literature:** The gender composition of groups, especially of the decision makers, will influence group marketing performance.

These hypotheses were tested using the following variables: Leadership by sex; Gender categories; and the five heterogeneity variables (i.e., ethnic, religious, educational, gender, wealth).

Starting with the last hypothesis concerning gender, it has been argued from the onset that female-only and female-dominating groups will be at a marketing disadvantage compared with their male counterparts. There is sufficient evidence to support this hypothesis, but only so far as it applies to groups attempting to improve their market situation by seeking out new market opportunities. Due to culturally ascribed gender roles, women assume a greater share of the responsibility over their households’ production and reproduction activities. Given these

responsibilities, many women simply do not have time to spend searching out new market opportunities. This is compounded by the fact that women do not have the same socio-political networks that men have, all of which makes it more difficult for them to access new resources and services that could lead to new market opportunities.

In terms of the heterogeneity/homogeneity hypotheses, the only heterogeneity variable in the bivariate analysis that proved statistically significant was ethnic heterogeneity, which provides some evidence toward disproving the hypothesis that homogeneity of identities will better position groups to improve their market situation. In fact, an earlier discussion of gender inclusiveness adds weight to the argument that heterogeneity, not homogeneity, of identities will be better position groups to improve their market situation. When considering the gender categories, even though female-only groups have proven successful, it may be more efficacious to form more mixed sex groups to take advantage of the marketing strengths of women (i.e., sound knowledge of the existing markets, bargaining skills, and “good with money”) with the advantages afforded men (i.e., greater access to other market chain actors and service providers, and more time to search new market opportunities). It also seems reasonable that other aspects of “identity” heterogeneity, such a religious heterogeneity, would be advantageous to farmer marketing groups since such diversity could open new information channels in which to learn about new market opportunities, innovations, and other programs that could enhance their marketing performance. The same cannot be said for the hypothesis that states that farmer groups with heterogeneity of endowments will be better positioned to improve their marketing performance. Whether or not these refer to educational and wealth heterogeneity, there is little evidence to support this hypothesis since both of these variable proved statistically insignificant.

In summary, evidence from this study disproves both hypotheses, with stronger support given to the notion that heterogeneity of identities can be an important asset for groups attempting to improve their market situation.

### **Objective 3: Farmer Group Characteristics**

The third objective is to assess the extent to which certain group characteristics, including the group's institutional capacity, will affect a group's ability to improve its market situation.

Hypotheses relating to the group characteristics objective include:

- **Hypothesis 1a – Institutional economics literature:** Farmer groups with functioning internal institutions for guiding group behavior and action will be better positioned to improve their marketing performance.
- **Hypothesis 4b – Collective action literature:** Farmer groups with past successful activities will be better positioned to improve their marketing performance.
- **Hypothesis 4a – Collective action literature:** Smaller farmer groups will be better positioned to improve their marketing performance.

These hypotheses were tested using the following variables: Maturity; Age of group; Activity level, and Size of group. The first three variables act as proxy measures for functioning internal institutions and by their extension to the types of activities these groups are capable of doing.

Starting with the last hypothesis, group size did not have any affect on group marketing performance, and thus, there is no evidence in this study to support the hypothesis that smaller farmer groups will be better positioned to improve their market situation over larger groups. In regard to the first two hypotheses, it is clear from the bivariate and regression analysis that all three variables (i.e., maturity; age of group; and activity level) are positively associated with the groups' ability to improve their market situation. The association was particularly strong for the maturity variable. Even after accounting for all the other variables, a far greater number of the groups in existence before the project intervention were able to implement collective action initiatives to improve their market situation. Whereas mature groups had a set of formalized or

informal set of institutions to guide group behavior and action, the same cannot be said for the newly formed groups. Many of the newly formed groups did not improve their market situation. One explanation is that few of these groups had yet to form internal institutions that could be utilized to mobilize group resources and to put them toward collective action initiatives.

The positive association of group activity level to improved marketing performance bolsters this finding. Some set of rules must be followed in order to run successful and sustainable group activities, even more so when a group is running multiple group activities. It is the combination of functioning internal institutions and successful group activities that provide the confidence and willingness for groups to take on new initiatives, and thus is one of the major reasons that these groups were able take the PA trainings and put them into practice to improve their market situation. In summary, there is sufficient evidence to support the first two hypotheses relating to internal institutions and past successful group activities and to reject the last hypotheses relating to group size.

#### **Objective 4: Market Access**

The fourth objective is to assess the extent that physical market barriers will affect the group's ability to improve its market situation.

#### **Objective 5: Partner Agency**

The fifth objective is to assess the extent that partner agency interventions of group-capacity trainings and market linkages will affect the group's ability to improve its market situation. Both of these objectives are examined through the following hypotheses:

- **Hypothesis 1b:** Farmer groups that establish institutional arrangements with other chain actors (i.e., rules for guiding *exchange* behavior) will be better positioned to improve their marketing performance.
- **Hypothesis 1c – Institutional economics literature:** Farmer groups that have lower transaction costs vis-à-vis other competitors will be better positioned to improve their marketing performance.

- **Hypothesis 5a – Cultural materialism literature:** Farmer groups with infrastructural advantages over their competitors will be better positioned to improve their marketing performance.

These hypotheses were tested using the following variables: Partner agency (PA); PA linkage; Distance to markets; Road conditions; Reliable water source; Land; and Commodity types.

Physical market access variables – as represented by road conditions and distance to markets - did not factor into a group's ability to improve its market situation. The literature suggests that groups farther away from markets, especially those where poor road conditions exist, will have higher transaction costs compared to those groups living near main roads and markets. But these constraints did not factor significantly in a group's ability to improve its market situation. This can be partially explained by understanding those groups that improved their market situation through contract arrangements with agribusinesses. In almost all situations, the agribusinesses in this study were willing to assume these transaction costs in order to find growers that matched their agro-ecological criteria.

This is best exemplified by the artemisia agribusiness. To find farmers with enough land with the appropriate agro-ecological conditions, it was necessary to draw on farmers far removed from the major market outlets with severely limited road access. The company certainly would have preferred the opposite, but many of the farmers with good roads and market access either did not have enough available land and/or were growing higher value crops that made switching to artemisia unprofitable. There were not enough of these examples to support a negative association of market access to improved marketing performance, and thus, the study concludes that groups with lower transaction costs are not necessarily in a better position to improve their marketing performance.

There is, however, sufficient evidence to support the hypothesis that farmer groups which establish institutional arrangements (i.e., rules for guiding exchange behavior) with other chain

actors will be better positioned to improve their marketing performance. Due largely to the PA linkages and training, many of the successful groups in this study were able to establish new institutional relationships with other market chain actors. Some of these arrangements were formalized through written contracts with agribusinesses but many others were informal arrangements built on mutual trust and profit motives. Under the market development and diversification strategies, a total of 17 groups were able to take an existing product or a new product and exploit new market opportunities. The establishment of these new institutional arrangements enabled 14 of these groups to improve their market situation, with only three groups finding a breakdown in these relationships and ultimately market failure.

There is also sufficient evidence to support *partially* the final hypothesis that producer groups with infrastructural advantages – represented in this study by the agro-ecological factors (i.e., water, land, commodity type) and market access (i.e., distance to markets and road conditions) – will be better positioned to improve their marketing performance. It can be partially supported because the conclusive evidence relates *only* to the agro-ecological factors. Indeed, there is strong reason to propose that the agro-ecological factors are the overriding drivers of a group's ability to improve their market situation.

In the final summation of these findings, it is appropriate to return to the conceptual model guiding this research to address the primary research objective: to identify and understand the underlying factors that enable smallholder farmer groups to improve their market situation. Within the infrastructure, the driving forces are favorable agro-ecological conditions – as represented by available lands, good soils, and access to a reliable water source – and farming systems that support crops with market potentials (i.e., vegetable, fruits, rice).

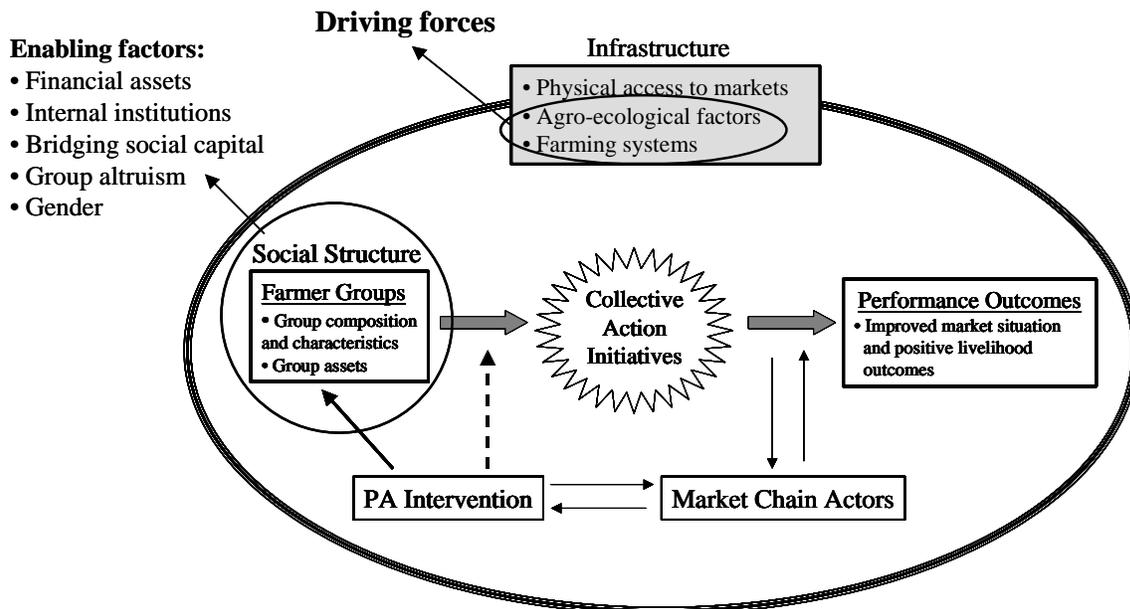


Figure 6-1. The driving forces and enabling factors of group marketing performance

Under the social structure, the enabling factors include: groups with financial assets that can be mobilized to meet existing and emerging market opportunities; groups with developed internal institutions (represented by mature groups with functioning group activities) to guide group behavior and action; and groups endowed with bridging social capital (represented by community leaders and ties to external providers that enhance a group’s ability to access new resources). Cognitive social capital in the form of group altruism is also an enabling factor that can enhance a group’s ability to maximize existing resources. The gender composition of groups also factors in group marketing performance. It acts an enabling factor for male-dominated groups and acts as a *disabling* factor for female-only groups. Cognitive social capital in the form of group trust and homogeneity of identities are not significant factors in a group’s ability to improve its market situation.

## **Study Conclusions: Theory Revisited**

Returning to the larger picture, this study has as its ultimate goal to study the results of development projects to improve the livelihoods of smallholder farmers through market-oriented interventions. The primary research question of this study has always remained the following: What are the underlying factors that enable smallholder producer groups to improve their marketing performance? It is a question that has been hotly debated by a wide array of academics, policy makers, and development practitioners. By pulling from a selection of differing schools of thought, the literature review chapter attempted to distill the major underlying factors that deserve attention when trying to answer this question.

Each school of thought varies in its scope and scale in proposing certain determining factors over others. Within the context of this study, institutional economics argues that primacy must be placed on building internal institutions that function to guide group behavior and action. Institutional arrangements must also be established with external actors in order to guide exchange behavior. These institutions serve to reduce uncertainty and lower transaction costs, which ultimately leads to the most efficient allocation of scarce resources. Proponents of social capital emphasize that factors such as trust, solidarity, and socio-political networks are vital livelihoods assets that enable individuals or groups to improve their economic and social well-being. Just as it is necessary to build or enhance other group assets, social capitalists place primacy on the need for groups to increase their stocks of cognitive and structural social capital. With greater trust, group cohesion, and solidarity, groups are better positioned to maximize their existing resources; and, with more extensive socio-political networks, groups can maximize their opportunities to access new resource flows. In many ways, both the institutional economists and social capitalists are arguing for the same things. The enhancement of cognitive social capital parallels what the institutional economists hope to accomplish through the establishment of

internal institutions within groups. Likewise, the enhancement of structural social capital parallels the urging of institutional economists to establish institutional arrangements with external actors.

Although not specifically addressed within the study hypotheses, Hyden's economy of affection is an important addition at this point, since it turns a critical eye toward a basic assumption made by both the institutional economists and social capital proponents that the Tanzanian peasantry has been fully "captured" by the capitalist mode of production – a mode of production that encourages capital accumulation and individual advancement. Hyden insists that countries like Tanzania have yet to be captured by the capitalist system and that the economy of affection is alive and well – forming a system that continues to be characterized by exchange relations based on leveling mechanisms that discourage socio-economic stratification and capital accumulation.

It may be argued that aspects of the economy of affection still exists in parts of Tanzania, but the findings of this study show little evidence that such a system is still in place for producer groups. The data show that there is no "opting out" strategy for these smallholders into an economy impervious to the effects of the market and state. Indeed, the smallholders in this study are actively seeking ways to become more integrated in the market economy in the hope of providing a better future for their families. There were a number of reasons why farmers in this study chose to join groups, and little question that one of the major factors was the profit motive – the desire to increase their incomes by engaging in collective action initiatives to improve their market situation. In the many conversations with farmer group members, village key informants, and local government officials, there were no indications that the wider "community" was discouraging this behavior. If anything, this type of behavior was promoted, as evidenced by the

number of community leaders in the farmers groups. Contrary to Hyden's argument, this is because social and economic inequities in village economies are now the norm rather than exception. No where is this more apparent than the gender inequities existing within local institutions of village patriarchy, which this study has shown places women in a disadvantaged position to men in their ability to exploit new and emerging market opportunities. It is such examples that feminist economists have tried to highlight.

In many ways, feminist economists closely resemble the institutional economists in that they are also seeking to know how institutions can be utilized to allocate scarce resources efficiently. But, unlike many gender-blind economists, they do not assume that these institutions automatically bring about the equitable allocation of scarce resources. They argue that, in most cases, institutions are mechanisms for the inequitable distribution of resources. Thus, by first exposing those institutions that produce, enforce, and reproduce these rules that perpetuate social inequities, they are better positioned to advocate for alternative institutions that will allocate resources more efficiently and more equitably.

By comparison, the collective action theorists are purposefully more limited in their scope and scale of analysis. They are ultimately concerned with what are the ideal arrangements of group attributes and assets to induce successful collective action outcomes, and thus, less concerned about other determining factors existing outside the immediate domain of the group. Nonetheless, they have put forward a great number of important testable hypotheses that have greatly added to this study.

In juxtaposition to these other schools of thought, cultural materialism is different in its scope and scale of analysis. This starts with cultural materialism's purpose that is to present a nomothetic approach for explaining the whole of human behavior and culture change. Cultural

materialism places absolute primacy on the infrastructure (i.e., the modes of production and reproduction) as the determining driver of the human behavior and culture change process. At a practical level of everyday life and inquiry for this study, a cultural materialist attempting to identify and understand the underlying factors that will improve the marketing performance of smallholder farmers must take into the account the infrastructural factors and determine to what extent they are driving the change process. What becomes apparent when examining the other bodies of theory presented in this study is that they all place priority on the social structure (i.e., political organization and institutions) as the primary driver of the change process. It is not necessarily that these bodies of theory disregard the infrastructure. Institutional economists give great import to many infrastructural conditions, particularly as they apply to physical market access barriers. Social capital theorists readily admit that without adequate stocks of other livelihood assets, the efficacy of social capital is diminished; and feminist economists are strong advocates for the equitable distribution of natural resources. Yet, none of these other bodies of thought have the theoretical courage to place such determinacy on the agro-ecological factors – all of which is more surprising given the fact that without adequate land and enough water, the livelihood of a farmer ceases to exist.

Returning to the planned change initiative, the PA intervention attempted to improve the marketing performance of smallholder farmer groups by providing group strengthening and marketing skills training, and where possible, to link these farmer groups to other market chain actors. At the heart of this intervention is the PA's attempt to create a culture of entrepreneurship – the mantra being that farmers need to produce for markets rather than trying to market what they produce. On one level, it is about training farmers to be more business-oriented, to think of their crops as commodities and to organize group activities as business

enterprises. On another level, it urges the farmer groups to take more chances and become less risk-adverse. Thus, by instilling the farmers with this entrepreneurial spirit, these groups will become active marketing actors; they will go out and exploit the market, rather than letting the market exploit them.

Understood from this perspective, the PA intervention is a classic example of the education model of social change, in which the basic premise is that the way a person behaves can be altered by changing the way she or he thinks. Bernard (1995, p. 24) explains some of the pitfalls of this particular behavioral change model:

The model is based on the idea that thought causes behavior. If you want to change people's behavior, the reasoning goes, then you have to change how they think: Teach men to use condoms, teach women to use birth control devices, teach everyone to wash their hands after defecating... The educational model of social change creates a lot of employment for researchers and development project workers, but it doesn't produce much in the way of desired change. This is because behavioral change (the supposed dependent variable) often doesn't depend on education (the supposed independent variable). In fact, it's sometimes the other way around. When women have access to well-paying jobs outside the home, they tend to lower their fertility. Once that happens, an antinatality culture develops.

Keeping with this example, well-paying jobs would equate in this study with farmer groups endowed with good lands, access to a reliable water source, and commodities with market potential. With such natural assets, these groups were already in a better position to improve their market situation. If such groups could be assured that calculated risks would not lead to unrecoverable shocks to their livelihood systems, there is greater likelihood that a culture of entrepreneurship would develop naturally. This is where the PA intervention can, and did, have an immediate and possibly lasting impact. By strengthening groups and their marketing skills, many of the groups endowed with a core set of natural assets were given the confidence to seek out and exploit new market opportunities. However, even with these determining forces at work, the role of the social structure as an enabling or constraining factor should not be disregarded.

Even if groups are endowed with natural assets, constraining social structures (e.g., a lack of internal institutions to guide group behavior and action; or discriminatory external institutions that place women at a disadvantage when seeking new market opportunities) will make these groups far less likely to succeed in marketing initiatives to improve their livelihoods. There is a final point that should be made categorically, even the most organized and trustworthy of groups, equipped with the best marketing skills trainings possible, will have little likelihood of improving their market situation without the requisite set of natural assets. Any intervention that confuses the determinacy of the social structure over the infrastructure will not produce, as Bernard says, the desired change.

The matter comes down to distinguishing between the determining factors and those factors that will enable or constrain successful marketing performance outcomes. Because at the end of the day, telling farmers that they should become rural entrepreneurs – that they should be exploiting market opportunities rather than being exploited by the market – will fall quickly on deaf ears if the asset base and group capacity that is required to engage the market activities are simply missing. During interviews with farmer groups, many groups expressed their appreciation for assistance provided by FAIDA and TIP, but there were also many groups that expressed a great deal of frustration at the PAs and by extension the AMSDP program. The overwhelming majority of the groups that failed to improve their market situation found themselves in this position not because they attempted marketing strategies that failed, but because they never attempted them in the first place. The reasons for group inaction had less to do with poorly functioning internal institutions (e.g., internal conflict, lack of motivation or vision, poor leadership, etc.) and almost everything to do with not having the requisite assets that truly induce a change process.

Participating in PA training made it only more clear to many groups how little chance they would have in affecting positive change given the limited resources at their disposal. PAs tell them they should bargain for higher prices, or to insist that sales be done by weight and not by volume, but how are they supposed to do this when their crops have no market demand? The PAs tell them that they should store their crops in order to get higher late season prices, but how are they supposed to do this when they lack the capital to build or rent adequate storage houses? PAs tell them to switch to high value crops with greater market demand, but how are they supposed to do this when they lack the financial capital, water, and land to switch enterprises? PAs tell them to go out and find new markets for their crops; but how are they supposed to do this when they have neither the time nor the contacts in order to carry this out?

These questions are not academic in origin. They come from the many frustrated groups interviewed in this study – groups that are faced with the reality that no amount of training is going to improve their situation without assistance in improving their natural and financial capital assets. With this mind, the final chapter in this study hopes to answer some of these questions by providing a set of programmatic and research recommendations.

## CHAPTER 7 RECOMMENDATIONS

There are three sections to this chapter. The first section calls into question the efficacy of promoting short-term market-oriented interventions for poor smallholder farmers. The second section provides programmatic recommendations and the third section concludes with some research recommendations.

### **Poor Smallholder Farmers and Market-Oriented Interventions**

At the heart of the PA intervention was an attempt to create a culture of entrepreneurship within the farmer groups. The study has argued that such an approach will prove totally ineffective if groups are not endowed with the appropriate set of group attributes and assets. Given the limited resources available to the PAs and the short-term nature of intervention, their ability to achieve a success rate of 56 percent (19 out of 34 groups improved their market situation) is commendable. However, this success rate was accomplished by *not* focusing on poor smallholder farmers, AMSDP's target beneficiaries. Much effort was spent in this study to distinguish between "poorer" and "richer" groups, but the reality is that only *two* groups would be classified as "poor" farmer groups according to the wealth ranking classifications. Much of the success achieved was done mainly with smallholders who were "average" to "rich". Given the inability of this intervention to effect positive change with many of the "poor-to-average" farmer groups, this queries whether or not promotion of market-oriented interventions should be a central strategy to improve poor smallholder farmers' livelihoods. One answer comes from KIT et al. (2005, p. 5) who argue that market-oriented interventions, or value chain development, should target only those groups or individuals who can meet certain market conditions:

Value chain development should not be seen as a social policy to include everyone. It is targeted at particular players - those who have the potential to generate wealth by producing and processing specific products that the market demands. Inclusion – and exclusion – are a necessary part of such a "game". Smallholders must be able to meet

market conditions if they are to become players in this game. Not everyone can grow a particular specialist crop (that would merely flood the market). Not all farmers will have the right type of soils, own enough land, have land near enough to a road, or possess the necessary skills to grow a certain crop. They may not be able to organize themselves into a group, and they may not be interested in doing so.

From this perspective, there is little point in targeting poor smallholder farmers since they lack the market conditions necessary to achieve positive marketing outcomes. The findings of this study support this argument given the fact that even “average” and “rich” smallholders may not have the requisite assets and institutional capacity to effect positive changes in their market situation. A counterargument is that by dismissing this development strategy alternative, the consequence will be a widening gap between rich and poor farmers in regard to market competitiveness.

But, there is little need to make this an either-or proposition. The real debate should be about how to engage poor smallholder farmers in market-oriented interventions that can reduce the level of risk and uncertainty that will inevitably occur in situations where farmers become more dependent on the vagaries of the market. The *short* answer is that change agents should match farmer group assets and attributes with the appropriate risk level of the marketing strategy, with lower risk strategies such as market penetration and market development for “poorer” farmer groups and higher risk strategies such as product development and diversification for “richer” farmer groups. But this short answer does not get to the crux of the matter, which is: what happens when farmers do not have *any* assets in the first place? This is a similar question that many farmers in this study asked, and a question the next section on recommendations tries to answer.

### **Programmatic Recommendations**

The programmatic recommendations are derived from the lessons learned in this study, as well as from development practitioners trying to improve the market situation of smallholder

farmers in Africa.<sup>27</sup> The following recommendations are expressed by describing a number of stages that should be implemented if a change agent expects to conduct successful agro-enterprise initiatives with smallholder farmers. The eight stages in order of implementation are: (1) assessment of NGO institutional capacity; (2) formation of strategic partnerships in conducting market analysis; (3) selection and/or establishment of farmer groups; (4) assessment of group assets and institutional capacity; (5) analysis of agro-enterprise alternatives; (6) undertake group asset and institutional capacity-building measures; (7) selection of group agro-enterprise initiatives and implementation; and (8) evaluation of performance outcomes.

The following recommendations are made toward a specific change agent audience, namely development NGOs involved in smallholder agricultural development. This does not mean that the recommendations are not applicable to other change agents, such as agricultural extension or agribusinesses, but only that examples given have their context within the specific issues facing development NGOs involved in implementing agro-enterprise initiatives. Second, the recommendations are conditioned on the premise that smallholder farmers will need to form groups to improve their market situation. In this case, “group” is loosely defined, and does not imply that farmers must form permanent structures with extensive formalized institutions to achieve successful marketing performance outcomes. It means that farmers must collectivize in some form to maximize their existing assets and increase their accessibility to new resources.

### **Stages of Agro-Enterprise Development**

**Assessment of NGO institutional capacity.** Before beginning any market-oriented intervention, NGOs must assess their own institutional capacity that act as enabling or

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<sup>27</sup> These recommendations were influenced by two major sources. The section on agro-enterprise stages was heavily influenced by the work of Rupert Best, Shaun Ferris and host of other researchers involved in CIAT’s Rural Agro-enterprise Development Project, most notably Lundy et al. (2005) and Ferris et al. (2006). The section on participation was influenced by the work of another CIAT colleague, Jacqueline Ashby, most notably Lilja and Ashby (1999).

constraining factors in their attempts to implement agro-enterprise development. One NGO may have experience carrying out sub-sector market analyses but may lack the institutional capacity to establish and strengthen farmer groups. Likewise, another NGO may have experience in farmer group mobilization, but have no idea how to carry out a thorough analysis of the prevailing market conditions. Given the breadth of institutional capacity required to carry out an agro-enterprise initiative, almost any NGO undertaking such an assessment will soon realize its constraints. As such, an institutional capacity assessment serves the purpose of highlighting the NGO's strengths and limitations, and thus proves to be a fundamental step in identifying and establishing strategic partnerships with other stakeholders.

**Forming strategic partnerships and conducting market analysis.** Given the capacity limitations of any NGO, effective partnerships with other stakeholders provide the synergy and assets necessary to see an agro-enterprise initiative carried to a successful conclusion. Such partnerships may include higher-tier farmer organizations (i.e., cooperatives, farmer unions), trade and commodity specialists, research institutes, local government ministries (i.e., agricultural extension, cooperative, marketing, and community development officers), NGOs and civil society actors with marketing expertise, commercial banks and micro-finance lenders, and other market chain actors (i.e., traders, wholesalers, agro-processors, retailers, etc.). Some of these partnerships will be crucial in the initial NGO's assessment of the prevailing market conditions, while other partnerships may prove crucial in the implementation phase of the agro-enterprise development initiative. Once some of these strategic partnerships have been formed, the second part is to carry out a market analysis. There are a number of variations on how to do this, but one of the better approaches is to utilize the methodologies of value chain analysis. These methodologies are more comprehensive than other market analysis approaches because

they incorporate not only commodity streams and the participating chain actors, but also other actors who may bring added value to these market chains (i.e., agricultural extension and research institutes, micro-finance lenders, and other business development service providers).

Carrying out a value chain analysis serves two purposes. First, it helps the NGO become more aware of the myriad of market opportunities accessible to smallholder farmers, and the major obstacles that farmers will face in that access. Building this market awareness *must* happen before engaging farmer groups in experiential learning and other participatory approaches. There are significant market access barriers that face smallholder farmers, and NGOs should not be blindly initiating marketing strategies without the appropriate level of knowledge of the prevailing market conditions, or in other words, a clear understanding of the “larger picture.”<sup>28</sup> The second purpose of value chain analysis is that it will help to identify other strategic partnerships not originally considered. As mentioned earlier, many of these partnerships may end up playing a crucial role in successful marketing outcomes.

**Selection and establishment of farmer groups.** The selection of smallholder farmers to participate in the intervention largely depends on two factors. The *first* factor deals with the NGO’s time frame for implementing the intervention. Usually, this is not a decision afforded NGOs, but rather a decision made by donor agencies. Regardless of the donor agency’s conditions for target beneficiaries, if the NGO is required to implement market-oriented interventions within a limited time frame (e.g., three years or less), the NGO should exclude the participation of low resource, or poor, smallholder farmers – particularly if their inclusion would *first* require the establishment of groups. The findings here have made the case that short-term market interventions will not work for poor smallholder farmers because they lack the requisite

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<sup>28</sup> A more thorough discussion of stakeholder participation will occur after the explanation of the agro-enterprise stages.

assets and attributes to carry out such an initiative. Working with poor-resource farmers requires a long-term commitment on the part of donors and change agents, which few donor agencies are willing to make.

The second factor of farmer selection has to do with the willingness *and* the ability of farmers to participate. The reasons behind whether or not farmers are willing to participate are fairly straightforward. Farmers may decide that it is not in their best interests to be in the intervention and may opt out of participating for opportunity cost reasons. Even if the NGO is fully committed to work with poor smallholders, this does not mean that these farmers will be in a position to participate. A powerful constraint facing poor smallholders is time and labor ability – they are already overburdened meeting basic livelihood needs.

Given the cultural context, NGOs should also encourage the farmer groups to be gender inclusive. The findings of this study point to the efficacy of mixed sex groups wherein both men and women bring certain strengths and cultural knowledge that can increase the group's marketing potential.

**Assessment of group assets and institutional capacity.** Clearly, part of the last stage spills over to this one. The NGO must carry out a rudimentary assessment of farmers' assets and, if already in groups, their institutional capacity in order to judge the extent they satisfy the intervention conditions (i.e., project time frame and farmers' willingness and ability to participate). This stage requires a comprehensive assessment in terms of features noted below of newly formed or existing groups in terms of livelihood capital assets (i.e., natural, physical, financial, human, and social). The following list of assets highlights some of the fundamental assets that raise the potential for successful agro-enterprise outcomes.

- **Natural Capital Assets:** Available lands not depleted of fertility; a reliable water source.

- **Physical Capital Assets:** Labor-saving production and reproduction technologies.
- **Financial Capital Assets:** Access to financial capital or in-kind, whether through informal arrangements (i.e., saving and credit schemes, input loan arrangements) or through formal means (i.e., commercial banks, micro-finance lenders).
- **Human Capital Assets:** Basic literacy and numeracy; indigenous and technical knowledge of agronomic and crop husbandry practices; available labor.
- **Social Capital Assets:** Social cohesion and solidarity; inter-group trust; socio-economic and political networks; membership in other groups that maximizes existing resources and/or increases access to new resources.

The description of some of the fundamental social capital assets also relates to a group's institutional capacity. Institutional capacity is assessed by examining the degree that groups have functioning institutions that enable them to mobilize resources toward collective action initiatives. Two tools for assessing farmer group institutional capacity can be found in the appendices. The first instrument (Appendix C) was developed during this study and consists of a matrix to delineate groups by formation and purpose, as well as identifying the types of institutions that will govern group behavior and action. The second instrument (Appendix D) was developed by the International Center for Tropical Agriculture (CIAT) describes different stages of groups and their agro-enterprise capacity. Used together, they can help identify the farmer group's institutional strengths to be leveraged, as well the group's weakness to be overcome through capacity-building measures.

**Analysis of agro-enterprise alternatives.** This stage requires a higher level of farmer participation as the NGO and groups carry out more “informal” and rapid methods of market analysis, such as participatory farmer market research visits, as done by TIP in this study. With facilitation from the NGO, farmer groups should start to have the ability to match agro-enterprise potentials with their existing group asset configurations and institutional capacity. For some groups, these market potentials can be exploited immediately without the need to proceed to the

next stage of capacity-building measures. These groups are typified here as being the “richer” farmer groups. By carrying out the NGO-facilitated market analysis, these groups are well positioned to select and implement agro-enterprise initiatives. For those typified in this study as the “poor-to-average” groups, it is essential that they proceed to the next stage of capacity-building measures before embarking on agro-enterprise initiatives.

**Undertake group asset and institutional capacity-building measures.** Given that the last stage is done properly, many of the poorer groups will lack the requisite assets necessary to implement a successful agro-enterprise endeavor. Capacity-building measures will most likely center on improving their natural assets (i.e., soil fertility and natural resource management programs), which may take *years* to accomplish. In regard to institutional-capacity building measures, one of most effective means of doing this is to assist groups in establishing functioning internal activities that bring immediate *tangible* benefits to the group members. As highlighted in this study, there is certain vitality and ongoing sense of identity and purpose in groups when they have their own internal activities. These activities require the group to have a certain level of group coordination and cohesion to be sustaining. An effective activity is to assist groups in establishing a rotating savings and credit scheme. The activity serves a number of purposes. It helps groups to develop a culture of saving; it has the tangible benefit of providing immediate capital inputs to members in times of pressing needs (i.e., paying for school fees, medical bills, funerals, weddings, etc.); and, in order for the activity to be effective, it requires the groups to develop a set of internal institutions for guiding group behavior – institutions that will prove exceedingly useful when undertaking collective actions initiative to improve their market situation.

Given the long-term commitment that is often necessary to implement these capacity-building measures, NGOs often attempt to side-step this process by linking groups to other chain actors who are willing to provide the capital asset inputs the group is lacking. This frequently falls under the diversification marketing strategy, and occurs when NGOs see an immediate market opportunity and urge farmer groups to pursue this strategy without giving due consideration to the inherent risk and possible negative livelihood impacts if such an initiative proves unsuccessful. Removing these “blinds” from overeager NGOs and their farmer groups is a large measure of what needs to happen in the next stage of agro-enterprise development.

**Group selection of agro-enterprise initiatives and implementation.** There are number of critical steps in this stage of selecting and eventually implementing an agro-enterprises initiative. CIAT has developed several manuals on how to do this, that includes careful attention to selecting agro-enterprises that matches a farmer group’s capacity to an appropriate level of risk.<sup>29</sup> As well, the group should decide which marketing strategies to pursue, but the NGO is responsible to build the capacity of these groups to a level where shocks to their livelihood systems based on market failure are not irrecoverable.

**Evaluation of performance outcomes.** Evaluations are often an afterthought for many NGOs. They are conducted primarily to appease the demands of the donor agency, and thus, serve little purpose or utility for the farmer groups. This final stage of the agro-enterprise initiative is *not* this kind of evaluation. Even before reaching this stage, NGOs must implement institutional learning processes that enable farmer groups to evaluate systematically their marketing successes and failures. As such, this is not so much the final stage but the beginning of an iterative process by which farmer groups apply what they have learned toward their next

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<sup>29</sup> These manuals can be accessed online through CIAT’s website under Agro-enterprise Development Project: <http://www.ciat.cgiar.org/agroempresas/ingles/index.htm>

agro-enterprise initiative. Ideally, having institutionalized a learning process within the groups, this would be the time for the NGO to withdraw their direct involvement with the farmer groups. Of course, certain circumstances (e.g., working with poorer farmer groups that still need further capacity-building measures) may make it necessary to facilitate the agro-enterprise development process through several iterations before the farmer groups have the capacity to continue the process on their own. Furthermore, once the NGO has found the suitable time to withdraw, their participation in the change process need not completely cease. There are number of supportive roles that NGOs can play as their original core of farmer groups mature into sustainable agro-enterprises. As groups evolve, they will face new needs and challenges (refer to Appendix D). The NGO can play an important facilitating role in linking these groups to other business development service providers that have the capacity to meet the groups' growing needs. The NGO can get involved in scaling-up initiatives, such as organizing groups into higher-tier associations with the goal of improving smallholder competitiveness in regional and international markets. Getting involved in scaling-up initiatives then requires that the NGO revisit its institutional capacity, thus setting in motion another iteration of the stages of agro-enterprise development highlighted above.

### **Issues of Stakeholder Participation**

There are a myriad of ways to engage smallholder farmers in a market improvement process; some emphasize bottom-up participatory approaches, while others are top-down. In some cases, participation by stakeholder smallholders is nothing more than an afterthought, where, for example, an agribusiness is looking for farmers with the right conditions to grow their crops; the contracts are not negotiable, and the only farmer decision-making input is whether or not to accept the contract conditions. But, from this extreme example of non-participation, there

are a host of different approaches that rely on varying degrees of participatory farmer engagement in the planned change process.

Lilja and Ashby (1999) make use of well-known typology to identify the varying degrees, or levels, of participation by accounting for decision-making authority and communication between scientists and farmers in research and innovation processes. Although they use this typology within a research context, it is adaptable to the agro-enterprise development process. Within this typology, there are five possibilities for interaction between scientists and farmers, which range from scientist dominated approaches to those where ultimate decision making authority rests with farmers. The first category of participation, *on-farm research*, refers to scientist-controlled processes “without organized communication with farmers”. The second category is considered *consultative* whereby decision-making authority rests with scientists but farmer input is solicited. In this type of participation, scientists have an understanding of farmers’ perspectives, but may not incorporate this information into their decision-making. The third category of participation is *collaborative* where farmers and scientists share decision-making power. In this case, neither side makes unilateral decisions, nor can they renege on those jointly made decisions. Joint decision-making is based on mutual understanding grounded in two-way communication of opinions, preferences, and priorities. The fourth type is *collegial* participation. As the name implies, farmers and scientists in this type of process are envisioned as colleagues. Farmers are aware of scientists’ perspectives and may or may not incorporate those views or concerns into their decision-making. Scientists in this process often act as facilitators or resource persons for farmers who control the situation and can renege on decisions as they choose. The fifth type of participation, *farmer experimentation*, suggests a process

whereby farmers have sole decision making authority, with no organized communication with scientists.

Although the typology depicts five distinct categories of participation, the reality is that in most planned change initiatives, stakeholders will engage in multiple types of participation depending on a given approach and the stage of the development process. This is certainly the case of agro-enterprise initiatives and Figure 8-1 applies the types and levels of farmer participation to the recommended agro-enterprise stages.

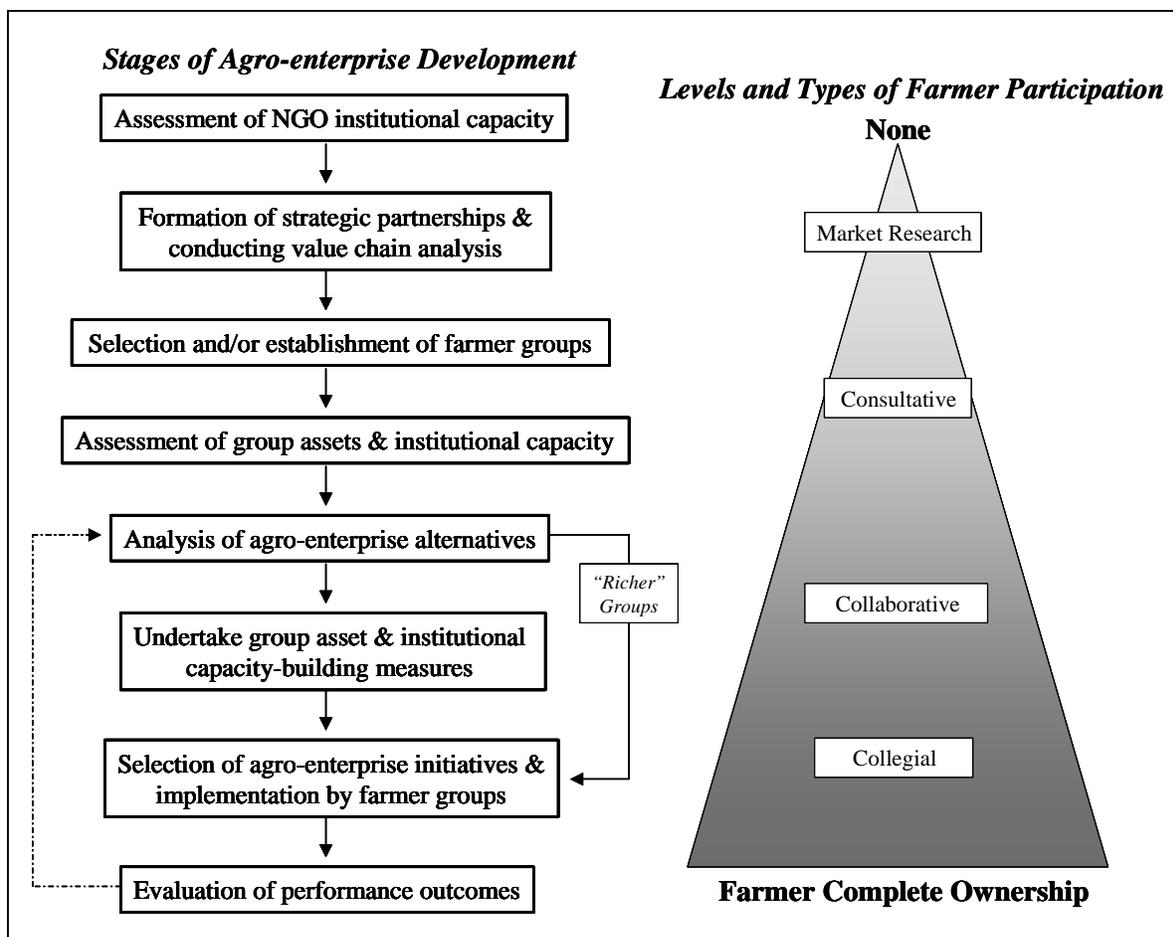


Figure 8-1. Stages of agro-enterprise development and degree of farmer participation

There is a time and place for farmer participation, and regardless of what the participatory “fundamentalists” may argue, farmer participation does *not* begin at the beginning stages of the agro-enterprise intervention. The first two stages involve little to no input from the expected beneficiaries. As mentioned earlier, NGOs should not be initiating marketing strategies with smallholder farmers without *first* gaining the appropriate knowledge of the prevailing market conditions. Part of filling in this picture entails that the NGO form strategic partnerships – partnerships that should be established on a *collaborative* type of participation that emphasizes two-way communication and joint-decision making. But, once the NGO and its partners move to the other stages of the agro-enterprise initiative, it is absolutely imperative that they increase the level of farmer group participation.

The selection of farmer groups and the assessment of group capacity is typified by the *consultative* type of participation, by which the NGO should be working with the farmer groups to incorporate their perspectives on proposed planned change initiatives. By the time the NGO and the farmer groups undertake the analysis of agro-enterprise alternatives and begin the capacity-building measures, the NGO must firmly establish a *collaborative* type of participation. By *not* encouraging two-way communication and joint decision-making at these stages of the initiative, the NGO runs the risk of becoming the drivers, instead of the facilitators, of the change process. This could lead to farmer group dependency and a lack of ownership over the eventual performance outcomes. Furthermore, by the time the change process reaches the stage of selecting and implementing the agro-enterprise initiative, a *collegial* type of participation should be well established. At this point, farmer groups may choose to take the NGO’s suggestions, but make their own final decisions on marketing strategies. It is only by “handing the stick over” (Chambers, 1997) that NGOs insure that groups will take full responsibility for the outcomes of

their actions. “Handing the stick over” is a gradual process that requires varying levels and types of stakeholder participation, all of which can play a crucial role in successful *and* sustainable planned change initiatives.

### **Research Recommendations**

In conclusion of this chapter, four recommendations for further research are put forward. The first two are specific and urge for more focused studies dealing with issues of farmer non-participation and gender. The last two recommendations are more general and emphasize the need for longitudinal studies to assess the negative and positive impacts of market-oriented interventions. Concurrent with this recommendation is the need for stronger partnerships between researchers and practitioners to develop effective and innovative strategies for implementing agro-enterprise initiatives with smallholder farmers.

**Issues of non-participation.** This study has shown that given the right set of assets and attributes, the formation of groups can be an effective mechanism for improving livelihoods of smallholder farmers. By forming a collective, smallholders have a greater ability to maximize existing resources, as well as access new resources that increase their chances of achieving positive livelihood outcomes. Further studies should continue to identify the enabling conditions, and much of the literature on social capital and collective has this singular purpose. What does not get as much attention but deserves a great deal more study is identifying reasons behind non-participation by farmers in groups. To what extent is non-participation of truly “poor” farmers a matter of deliberate exclusionary practices on part of the project participants, or an unintended consequence of the how the project was originally conceived and later implemented? This study has attempted to answer part of this question by showing how the group selection process tended to favor smallholders growing crops with market potential. Selecting groups on this criterion alone had the consequence of excluding most poor farmers

who rely on subsistence-oriented crops with little market potential. What this study cannot answer is the extent that farmer groups themselves have self-selecting processes that deliberately exclude poorer members of their community from participating. As well, more attention should be given to understanding the effects of the farm household life-cycle on farmer participation in group-related activities. This line of inquiry could highlight the conditions where non-participation may be less an issue of exclusionary practices and more a consequence of a particular farm household position in the life-cycle (e.g., households with a high consumer-to-producer ratio).

**Gender.** A number of gender implications have been highlighted in this study and that merit further research. The same questions concerning farmer non-participation and wealth need to be pursued along gender lines. There is a difference between the numbers of men and women as participants or recipients of projects and the gender issues involved in allowing or disallowing that participation (Spring, 1993; 2000; 2001). A fundamental question that still needs to be answered is to what extent do local institutions, whether existing in the household, community or elsewhere, perpetuate gender discriminatory practices that constrain women's abilities to pursue collective action initiatives? This study has shown that there are number of gender-specific marketing obstacles that place women in a disadvantaged position to men in their ability to pursue certain marketing strategies. One way that women groups have been able to overcome these obstacles is to partner with men in the formation of mixed-sex groups. Further research on this subject should be able to highlight the circumstances where such a strategy may or may not prove effective.

The final two recommendations may not be new but they do represent some of the pertinent issues that should be addressed by future researchers involved in studying the effects of

market-oriented interventions on smallholder farmers. The first recommendation is that greater emphasis must be placed on conducting longitudinal studies that can measure the *impacts* of market-oriented interventions through time and place. Paralleling the need for change agents to make longer-term commitments, there is also the need for research institutes to commit to longer term impact assessments of projects like AMSDP. A great deal of research, much like this study, has measured the immediate results and intermediate outcomes of agro-enterprise initiatives, but few have looked systematically at the long term impacts of smallholder market integration. Any study assessing the impact of smallholder market integration should be able to measure the positive or negative changes to the following: household food security, the environment, income inequality, and social inequality stemming from changes in socio-cultural relationships (i.e., gender, class, age, religion, race, ethnicity, etc.). Such studies will provide a fuller appreciation of the conditions that are most likely to bring negative and positive changes to smallholder livelihood systems.

The second research recommendation is that researchers *must* actively engage change agents as strategic partners in agro-enterprise development initiatives. By being involved in each stage of the initiative, the researcher collaborates with the other partners, particularly the farmer groups, to design and carry out research that most effectively meets their needs. This is the essence behind demand-driven research that is advocated but rarely put into practice. There is little question that establishing such systems will require a fundamental paradigm shift in the way most research activities presently are executed. Nonetheless, tremendous strides have been taken by some research organizations. CIAT is a notable example with its “learning alliance” model that serves as an institutional mechanism to promote “mutual, participatory learning between research, development institutions, and rural communities. The alliance aims to

accelerate institutional change, improve knowledge management, and deepen the level of impact with rural communities” (KIT et al., 2005, p. 182). The learning alliance model can also serve as the foundation for carrying out longer-term impact assessments, with constant feedback loops that connect the research results to the ongoing cycle of planned change initiatives.

### **Final Remarks**

The primary objective of this study has been to identify and understand the underlying factors that enable smallholder farmer groups to improve their market situation. This study objective was approached by evaluating a specific planned change initiative with the stated goal of improving the livelihoods of smallholder farmers through market-oriented interventions. This final chapter has been an attempt to take the lessons learned from this study and apply it toward a practical set of programmatic recommendations for conducting effective agro-enterprise development initiatives that can be inclusive of poor smallholder farmers. An overarching research recommendation was also put forward that urges researchers and practitioners to close the institutional divide by establishing mechanisms of mutual learning and exchange of ideas and practice, all of which requires greater stakeholder participation by farmers and other value chain actors in the decision-making process. These recommendations are grounded in the reality of studying a market intervention that has the potential to dramatically alter the livelihoods of smallholder farmers, whether for better or worse.

In an exchange with an old man (*mzee*) during one of the group interviews, he spoke about an agricultural extension officer who came to the community to promote a government-sponsored project. The officer told the *mzee* that the goal of the project was to eradicate poverty in ten years. The *mzee* chuckled as he remembered what he said to the officer: “the only way this will happen is if all the poor people are dead!” The farmer group got a good laugh from the *mzee*, but there was a profound seriousness underlying his remark. Promoting and implementing

market-oriented interventions *is* serious business; this study has underscored some of the potentials but also some of the inherent dangers that carrying out such interventions may have on the real livelihoods of smallholder farmers.

APPENDIX A  
SELF-ADMINISTERED QUESTIONNAIRES

**Questionnaire on Trust**

Please answer the following questions. These answers will not be shared by any other members of your group.

Generally speaking, would you say that most people can be trusted or that you can't be too careful in dealing with people? Circle one of the answers:

- You can't be too careful
- People can be trusted

**QUESTIONS ABOUT YOUR VILLAGE**

Please answer the following questions by circling one of the answers: do you AGREE, NEUTRAL, or DISAGREE with the following statements?

A) Most people in your village can be trusted.

1. Agree      2. Neutral      3. Disagree

B) In your village, one has to be alert or someone is likely to take advantage of you.

1. Agree      2. Neutral      3. Disagree

C) Most people in your village are willing to help if you need it.

1. Agree      2. Neutral      3. Disagree

D) In your village, people generally do NOT trust each other in matters of lending and borrowing money.

1. Agree      2. Neutral      3. Disagree

**QUESTIONS ABOUT YOUR FARMER GROUP**

A) Most members in your group can be trusted.

1. Agree      2. Neutral      3. Disagree

B) In your group, one has to be alert or someone is likely to take advantage of you.

1. Agree      2. Neutral      3. Disagree

C) Most members in your group are willing to help if you need it.

1. Agree      2. Neutral      3. Disagree

D) In your group, members generally do NOT trust each other in matters of lending and borrowing money.

1. Agree      2. Neutral      3. Disagree

**Questionnaire on Individual and Group Information**

PERSONAL INFORMATION

Name \_\_\_\_\_ Sex \_\_\_\_ Age \_\_\_\_

Tribe \_\_\_\_\_ Religion/Denomination \_\_\_\_\_

Village \_\_\_\_\_ Number of years living in village \_\_\_\_\_

Education level completed \_\_\_\_\_ Marital status \_\_\_\_\_

Sources of Income (farming, business, pension, etc.) \_\_\_\_\_  
\_\_\_\_\_

Household size (number of people living in house, including you) \_\_\_\_\_

List the age of your oldest two children, whether they are a boy or girl, and education levels they have completed

	<u>Name</u>	<u>Sex</u>	<u>Age</u>	<u>Education level completed</u>
1)				
2)				

Who paid for these two children's education? \_\_\_\_\_

Please answer the following questions, answering yes or no. If you answer yes, please provide the amount you or your household owns:

- |                               |                              |
|-------------------------------|------------------------------|
| Do you own any cattle? _____  | How many? _____              |
| Do you own goats/sheep? _____ | How many? _____              |
| Do you own chickens? _____    | How many? _____              |
| Do you own donkeys? _____     | How many? _____              |
| Do you own pigs? _____        | How many? _____              |
| Do you own land? _____        | How much? _____              |
| Do you rent any land? _____   | How much? _____              |
| Do you own a home? _____      | How many? _____              |
| Do you own a business? _____  | What type of business? _____ |

Circle the items that you or your household own:

Tractor   truck   car   motorcycle   cart   bicycle   oxen plough   hand hoe

radio   mobile phone   television   processing machine (milling, oil, roasting, etc.)

Please list your three most important crops and/or livestock:

1) \_\_\_\_\_

2) \_\_\_\_\_

3) \_\_\_\_\_

Please circle one answer:

1) In most years, do you irrigate your crops?

a) Yes, I use irrigation on some of my crops

b) No, I rely on the rains for all my crops

2) Do you hire people to do agricultural work for you?

a) Every year      b) When needed      c) Never

3) Do you sell your labor to others?

a) Every year      b) When necessary      c) Never

4) In most years, do you have difficulty affording agricultural inputs?

a) Yes              b) No

5) In most years, do you use fertilizer on your crops?

a) Yes              b) No

6) Did you plant on time this year?

a) Yes              b) No

GROUP INFORMATION

Name of group \_\_\_\_\_ How long have you been a member? \_\_\_\_\_

Position in group \_\_\_\_\_ Previous position in group \_\_\_\_\_

Current position in village/ward \_\_\_\_\_

*Please list all the groups that you belong to (including this one):*

Name of group

Purpose of group

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*Please circle one of the groups above that is most important to you and provide a brief explanation below:*

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THANK YOU FOR YOUR PARTICIPATION

APPENDIX B  
WEALTH RANKING CRITERIA FOR GROUP MEMBERS

Wealth ranking	Inclusion criteria
Very Rich	Material asset index: 7-8 Over 10 acres of land Usually owns one or more of the following: car, tractor, motorbike May own a store Owns several homes Plants on time Uses commercial fertilizer Owns over 50 head of cattle and goats/sheep
Rich	Material asset index: 5-6 4 to 9 acres of land Owns a motorbike May own a small shop Owns a home Plants on time Uses commercial fertilizer Owns over 30 head of cattle and goats/sheep
Average	Material asset index: 3-4 2 to 3 acres of land Usually owns a home Usually plants on time Usually uses fertilizer, mix of commercial and animal manure Owns around 2 to 3 head of cattle and 3 to 6 goats/sheep Does not usually sell labor May do some small trading in crops/livestock
Poor	Material asset index: 1-2 1 acre of land or less May not own a home Does not usually plant on time Does not use commercial fertilizer No cattle and a few goats/sheep Must sell labor some of the time
Very Poor	Material asset index: 0-1 Less than ½ acre of land Does not own a home Does not plant on time Does not use fertilizer Owns little to no livestock Must always sell labor

APPENDIX C  
INSTITUTIONAL CAPACITY ASSESSMENT TOOL

Institutional capacity is assessed by examining the degree that groups have functioning institutions that enable them to mobilize resources toward enacting collective action initiatives. This matrix can be an effective tool for assessing the institutional capacity of farmer groups. By delineating groups by how they were formed and for what purpose, the matrix helps to identify whether a group relies on internal or external institutions to guide group behavior and action, and the extent that these institutions function as a means of accessing outside resources or as a means of utilizing internal resources to affect positive livelihood outcomes. The utility of the matrix will be made clearer by examining the general characteristics of the four groups, labeled in the matrix as “A Groups”, “B Groups”, “C Groups”, and “D Groups.”

		Group Formation	
		Internal	External
Group Purpose	Inward	<i>A Groups</i>	<i>B Groups</i>
	Outward	<i>C Groups</i>	<i>D Groups</i>

Figure B-1. Institutional capacity assessment matrix

**A Groups.** Groups with internal-formation and inward-purpose are groups that were formed on their initiative without outside assistance in order to solve pressing issues facing the members. The problems they face are group-defined and they are enacting collective action initiatives in order to solve these problems. Groups that have been successful in solving some of their pressing issues will have developed, in most cases, a set of *informal* institutions to guide group behavior and action. Examples of A Groups can include labor-exchange groups, rotating savings and credit groups, and collective marketing groups.

**B Groups.** Groups with external-formation and inward purpose occurs when change agents have initiated the group formation process with the purpose of facilitating the groups to define their most pressing problems and provide assistance for them to solve these problems. A good example of this are the various micro-loan schemes, which is best exemplified by the Grameen bank approach. Under these arrangements, the micro-finance lender will provide group loans but leaving it up to the group's discretion on how best to spend it. This arrangement requires the establishment of a set *formal* institutions (i.e., specified loan amounts and repayment periods) but it also requires the groups to develop their own set of internal institutions to regulate group behavior in order to insure that individual members do not default. By developing these internal institutions, the group not only insures repayment but also opens the possibility that these institutions can be utilized to enact other collective action initiatives toward successful livelihood outcomes.

**C Groups.** Groups with internal-formation and outward-purpose are groups that were formed on their own initiative but with the purpose of solving their pressing issues by pursuing resources outside of their community. The problems they face are still largely group-defined but the group is looking outward to service providers and other change agents to provide them the assistance in solving their problems. Whether or not groups in this category are able to solve their most pressing issues will largely be determined by who is approached and the type of assistance they can provide. For example, a group of farmers are faced with depleting soil fertility, so the farmers approach an agricultural extension officer to provide them assistance. By forming a group, the extension officer is able to provide trainings on how to improve soil fertility. Thus, the group was successful in solving one of their most urgent problems. But, there are many other groups that formed internally for the purposes of accessing *any* resources that

come their way. They would certainly like these resources to meet their most demanding needs, but are willing to get involved in almost any service provision activity, almost regardless of its relevance to them. Groups of this nature can quickly develop a “hand out” mentality. By constantly seeking outside resources, these groups become increasingly dependent on external agents to solve their problems for them. In many such cases, groups develop effective informal institutions that function to access new resources. But, at the same time, these groups may never develop the internal institutions that function to mobilize group resources toward carrying out collective action initiatives on their own accord.

**D Groups.** Groups with external-formation and outward-purpose occurs when change agents initiate the group formation process with the purpose of solving a problem largely defined by the change agent. Within the field of development, a tremendous number of groups have been formed with this purpose in mind. AMSDP provides an excellent example of this. AMSDP defined the problem – poor smallholder farmers lack market access – and thus set in motion a planned changed initiative to improve the market access for smallholder farmers. It mattered very little whether or not market access was the most pressing issue facing these groups. Indeed, for many groups this was not their most pressing issue and the consequence was an utterly ineffective intervention. Returning to the larger picture, groups under this arrangement are often instructed by the change agent to develop *formal* institutions to guide group behavior and action. The difference between these sets of formal institutions and those established under those from group B is that they function to solve the change agent-defined problem. Even if the intervention has proven successful, there is still the issue on whether or not these externally-derived formal institutions will prove effective for helping groups tackle other pressing problems facing the group. More often than not, once the change agent leaves, the group finds these

external institutions totally ineffective without continued assistance from other change agents. Thus, many groups develop a similar “hand out” or dependency mentality exemplified by C Groups. But, there is also the possibility that groups will *internalize* these external formal institutions, and find ways to apply these institutions to other successful livelihood outcomes. Whether this happens or not will be largely determined by the exact nature of the intervention, and thus must be assessed on a case-by-case basis.

**Assessing Group Institutional Capacity.** Each “group category” represents different levels of institutional capacity, with A and B Groups more likely to have internal institutions that are effective in mobilizing existing resources, and C and D groups more likely to have internal institutions that are effective in accessing external or new resources. Likewise, groups with an inward focus toward solving their problems will exude less dependency characteristics and greater long-term sustainability compared to groups with an outward focus that look to others to solve their problems for them. Finally, as with any typology, most groups will not fit neatly within just one “group category” and indeed groups with very high levels of institutional capacity are ones that have internal institutions that are effective in mobilizing existing resources within the group *and* institutions that are effective in mobilizing new resources from outside their group – which would essentially place the group in both the A and C categories. As with any tool, the matrix needs to be placed within the proper context of a specific study, and utilized as one of many ways to assess how the institutional capacity of the groups may affect their ability to bring about positive livelihood outcomes.

**APPENDIX D**  
**STAGES OF FARMER GROUPS AND THEIR AGRO-ENTERPRISE CAPACITY**

Stage	Characteristics	Pre-conditions to enterprise development	Enterprise emphasis
Subsistence	Individual farmers producing predominantly for own consumption, selling small surpluses to local markets. Limited access to services and no use of purchased inputs. Low asset accumulation, most vulnerable.	This type of community requires pre-enterprise support such as re-stocking assets. This may include provision of Food aid, Seeds, tools, livestock, inputs, Conflict resolution, Safety net clauses and interventions.	Focus on organization of farmers into groups to build social capital, trust and simple business skills to lay the foundations for enterprise. Start with existing products that show high market demand, value and are produced by the majority of farmers.
Early stage	Small-scale enterprises, limited value addition, weak business skills and incipient social cohesion among group members. Access to services is irregular which limited enterprise growth prospects.	Communities at this stage are well positioned to benefit from enterprise support. Service providers should review their competence and staff profiles to ensure quality of marketing services.	Focus on group dynamics and developing group business skills. Initiate record keeping to lay the foundation for future financial accreditation / support. Seek enterprises that are more profitable for the target group.
Developing	Commercially oriented enterprises, more social cohesion. Using value adding handling, processing, products more diversified. Selling into local and national markets. Have access to appropriate services that permit enterprise growth.	Require specialist support in areas of enterprise growth. This may include aspects such as market information, finances, new product development, etc.	Focus on increasing scale and value addition within selected sub sectors. Lead groups should seek links to like-minded groups in order to encourage scale. Record keeping and business planning should be shared with financial experts and group should seek financial support.
Mature	Farmer enterprises are fully integrated into supply chains producing products that meet market demands in terms of quality and frequency of supply, both nationally and for export. Are capable of identifying and paying for required business development services.	These groups will require support in areas of business management and are likely to be interested in risk capital ventures that will provide them with a forward looking edge in the marketplace. Increasing use of ICT's to support enterprise development and growth.	Focus on chain champions and issues of governance and equity in the market chain. Group should link with specialist skills / information service providers, which should be fee based. Group should focus efforts on to product development issues, including branding, customer relations and broadening product portfolio. Shift to supply chain management or value chain approaches to consolidate markets.

*(Adapted from Lundy et al., 2006, p. 27)*

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## BIOGRAPHICAL SKETCH

James Barham was born in Anaheim, California, in 1972, to Hal and Marcia Barham. At 3 years of age, his family moved to Saudi Arabia where they lived for 21 years. James attended Kenyon College in Gambier, Ohio, where he received his Bachelor of Arts in history in 1995. After several years of teaching history at the high school level, he returned to academia by entering the Department of Anthropology at the University of Florida in 1998. For his master's thesis, James studied women's participation in community development associations in Upper Egypt. After receiving his Master of Arts in 2002, he entered the School of Natural Resources and the Environment to pursue a doctoral degree in interdisciplinary ecology. In 2005, James and his wife, Beth Byron, departed for Arusha, Tanzania, where he conducted his doctoral field research. After 18 months in Tanzania, they returned to Washington, DC, where they presently live. James is currently working for the United States Department of Agriculture's Agricultural Marketing Services where he is helping small farmers to improve their market situation.