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COMPETITIVE STRATEGIES FOR AGRICULTURE-RELATED MSEs: FROM SEEDS TO SUPERMARKET SHELVES

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The authors' views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government.

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ACRONYMS AND ABBREVIATIONS

AMAP	Accelerated Microenterprise Advancement Project (USAID)
ASME	Agribusiness Small and Medium-Sized Enterprise Market Development Program, Armenia (USAID)
BDS K&P	Business Development Services Knowledge and Practice (AMAP)
EU	European Union
FACN	Fédération des Associations Caféière Natives
FDI	foreign direct investment
HEIA	Horticulture Export Improvement Association
IDB	Inter-American Development Bank
IDS	Sussex Institute of Development Studies
MSE	micro and small enterprise
NGO	nongovernmental organization
OECD	Organisation for Economic Co-operation and Development
RAISE	Rural and Agriculture Incomes with a Sustainable Environment (USAID indefinite quantify contract)
SPS	sanitary and phytosanitary standards
USAID	U.S. Agency for International Development

FOREWORD

This paper was written as part of the Accelerated Microenterprise Advancement Project (AMAP) Business Development Services Knowledge and Practice (BDS K&P) research initiative. The project's major objective is "integrating micro and small enterprises (MSEs) into productive value chains to create wealth in poor communities."

The publication is part of a series that examines how MSE development fits into the broader picture of private sector development, i.e. how projects focusing on trade, competitiveness, or agriculture can stimulate the participation of small firms to achieve the goal of broad-based economic growth. This document is meant to inspire practitioners to identify and implement projects that include small firms – and farms- as competitive players in developing country agriculture and agribusiness.

Because international agricultural development is a complex topic, it is important to alert readers as to what this paper does *not* do. The topics of food security and food policy, degradation of the environment resulting from modern farming practices, and controversies surrounding subsidies to developed country agriculture, genetically modified foods, etc. are all issues critical to agriculture, agribusiness, and development. However, the need to focus prohibited any meaningful discussion of these issues. The paper adopts a market framework, examining how development interventions can maximize opportunities by developing competitive strategies for small farmers and other agriculture-related MSEs, and the value chains in which they participate.

Research for this paper was conducted over a period of eight months. The authors carried out a broad literature review and consulted with leading researchers and practitioners in the field through a series of expert opinion interviews, as well as drawing from their own experience in business and development. The paper benefited greatly from the intellectual guidance of Jeanne Downing and Michael Field, as well as the work of other research teams under the BDS K&P project, managed by Zan Northrip and Andrea Chartock. Useful input included the expert opinion interviews conducted for the trade paper (Goldmark and Barber 2005), a database of donor programs compiled for the review of programs (Snodgrass, et al. 2004), and preliminary field research carried out in Guatemala by researcher Elizabeth Dunn. Contributors to the paper include Mary Miller, Luke Dunnington, James Grall, Vicki Tsiliopolous, and Matthew Rees. The experts kind enough to share their time with us included: Jon Anderson, Rick Andrews, Roger Bloom, Joe Carvalho, Marc Cohen, Steve Collins, Eric Derks, Clive Drew, Froylan Gracia, Gretchen Goodhart, Daniele Giovannucci, Steven Haggblade, Allen Hammond, Martin Hanratty, Ronald Harvey, James Herne, Don Humpal, David Knopp, Ron Kopicki, Barry Lennon, Dr. Andy Medlicott, Dr. Steven New, Peter O'Driscoll, Judith Payne, Bagie Sherchand, Ken Smarzik, and David Soroko.

I. INTRODUCTION

Globalization and liberalization have greatly changed the landscape of agriculture and agribusiness in the 21st century. Some development professionals question whether there is a future for small farms, even in developing countries. Others argue that staple crops will continue to be important in a number of countries into the future. Between these two points of view, still other observers see the growing supermarket trend existing side-by-side with traditional markets, which are evolving to serve the more “modern” markets.

This paper seeks to identify appropriate opportunities for small farmers and firms in modern-day agriculture and agribusinesses in developing countries and to explore how development interventions in this sector can expand on those opportunities. Micro and small enterprises (MSEs) are involved at all levels of agriculture-related value chains—from seeds to supermarket shelves. While the motivation to focus on MSEs comes from a desire to see economic growth accompanied by poverty reduction, the paper adopts the premise that there are cases in which small players *can* be competitive in local and international markets; and that the most successful projects will take a long-term perspective towards building market systems that work for firms—and farms—of all sizes.

The introduction below defines key concepts used throughout the paper, describes the competitive landscape for developing country agriculture, and presents a *value chain* framework, which builds on the well-known tools of subsector and commodity systems analysis. Subsequent sections of the paper apply the value chain framework to analyze: (a) the nature of opportunities for MSEs in agriculture and agribusiness value chains, and (b) the critical design elements for interventions that encourage and support the participation of MSEs. The final section distills lessons from USAID and other donor interventions—what support to MSEs in this context has worked, what has not worked and why.

1.1 AGRICULTURE, AGRIBUSINESS, AND DEVELOPMENT – A BACKDROP

Agriculture plays a key role in economic growth—because of both its relative size and the important linkages to the rest of the economy. Today, about 70 percent of the developing world’s economy depends—directly or indirectly—on agriculture and related industries. In low-income countries, up to 80 percent of employment is agriculture driven; in mid-income developing countries, about 50 percent of the population is engaged in agriculture.¹

A brief comparison of developed versus developing country agriculture is useful to highlight some long-term trends associated with the modernization of agriculture as well as the particular challenges faced by developing countries. Since

Box 1: Definitions

- Agriculture typically refers to the production of food, feed, fiber and other desired products by cultivation of plants and the raising of domesticated animals (livestock). In this paper the term will include aquaculture, horticulture, and the harvesting of wild plant products.
- Agribusiness is defined as the set of agriculturally related businesses that supply farm inputs or are involved in the processing, distribution and marketing of farm products. The term is also used in this paper to refer to businesses engaged in the processing and distribution of other harvested products such as shrimp, cashews, and berries.
- MSEs are usually defined as businesses with less than 50 employees. The term is used broadly in this paper to include “smallholders,” or farmers with small plots of land (i.e., less than 10 hectares); individuals engaged in aquaculture or in harvesting wild plant products, and enterprises in related industries such as small-scale processors.

¹ John W. Mellor, “Pro-Poor Growth –The Critical Rural Non-Farm Multipliers And How to Achieve Them,” Prepared for a USAID workshop; Promoting Economic Growth, June 28-July 2, 2004; Washington D.C.

the 1950s, mainstream economic theory has upheld the view that as countries develop, they become less dependent on agriculture. Indeed, industrialization as it occurred in Europe and the United States involved a decline in agriculture's share of domestic output, and a corresponding increase in outputs of the manufacturing and service sectors. Rural-urban migration accompanied a massive shift in employment away from the farm and towards the factory and the office. In the United States today, less than 2 percent of the population is involved in primary production, or farming (although an estimated 16–18 percent is employed in the associated agribusiness value chains).²

It must be recognized, however, that despite its relatively low share of employment, agriculture continues to play a significant role in the economies of developed and developing countries. The United States and Europe, respectively, are the world's largest agricultural exporters.³ Developed country governments offer significant benefits to their agriculture sectors, including farm-friendly labor policies, support for research and development of new technologies, and protection from trade in the form of tariffs and subsidies to reduce losses and shield farmers from price volatility.⁴

The early development of agriculture in the United States was based on the availability of large expanses of land. This, combined with chronic labor shortages, provided the impetus for the development of labor-saving technology, and the results of that process can be seen today in the high degree of agricultural mechanization, crop specialization and large farm sizes.⁵ Inputs like fertilizers and pesticides were developed and distributed worldwide to aid farmers in combating natural pests and to slow soil depletion. The development of new plant varieties resistant to drought and disease, combined with other advances in cropping techniques and irrigation systems, has increased the productivity of land and generated greater yields. These practices and technologies have been adopted throughout the developed world and much of the developing world.

The combined effect of technological advances and developed country incentives to maintain high production levels means that today, there is a global surplus of food—and farmers. The small farmer in the United States is a disappearing breed; in Europe, small farms are propped up by subsidies. Why then, do development projects aim to support small farmers in developing countries? And why, if the development process dictates that agriculture's share of national output should decline, support the industry at all?

Development assistance in agriculture over the past five decades has followed a distinct evolution from supply-side (production-oriented, including the Green Revolution), to market building (the development of private agribusiness firms and associations), to demand-pull (export diversification and more recently,

² Nestle, Marion, (2002), *Food Politics*, University of California Press, Berkeley and Los Angeles, CA.

³ Hasha, Gene, *World Agriculture and Trade—Agricultural Outlook*; Economic Research Service: U.S. Department of Agriculture, December 2001.

⁴ According to estimates by the Organization for Economic Cooperation and Development (OECD), EU subsidies and other transfers from governments of member nations accounted for 35 percent of total farm revenue in 2001. In the United States subsidies and transfers represented 21 percent of total farm revenue. See Economic Research Service: U.S. Department of Agriculture, *The Economics of Food, Farming, Natural Resources and Rural America*; Briefing Room, November 2002. <http://www.ers.usda.gov/Briefing/EuropeanUnion/basicinfo.htm>

⁵ The average United States farm is 473 acres, ten times larger than the average European farm (40 acres). Pirzio-Biroli, Corrado, "The EU is Ready for Broad Negotiations on Agricultural Reform"; *Agriculture and Food Safety*, European Affairs; European Institute (Winter) 2001. Economic Research Service: U.S. Department of Agriculture, *The Economics of Food, Farming, Natural Resources and Rural America*; Briefing Room, November 2002. <http://www.ers.usda.gov/Briefing/EuropeanUnion/basicinfo.htm>

compliance with private industry and international standards). The lessons from each phase of development assistance and the implications for the role of small enterprise are discussed in more detail in Section IV. Suffice it to say here that agricultural economists have widely acknowledged the following linkages through which agriculture, and small farms in particular, contribute to economic growth:

- a sustainable industrialization process requires **increases in agricultural productivity**, as well as transfers of labor and capital from agriculture to manufacturing and services⁶;
- linkages through **factor markets** (labor, capital, land) mean that agricultural growth contributes directly to economic growth⁷;
- linkages through **product markets** allow agricultural growth to stimulate the non-agricultural sectors. Studies show that for every job created on a farm, five are created in the non-farm sector⁸;
- farm productivity and production costs are fundamental determinants of the **prices of food**, which in turn account for 60–70 percent of total consumption expenditure by low-income groups⁹;
- **non-market linkages** through which rural savings (in-kind) are put to productive uses¹⁰ mean that agricultural growth contributes to rural development, and
- **small farms** play a very specific role in diffusing the benefits of growth throughout the rural economy.¹¹

In addition, a practical approach to agriculture and agribusiness development will acknowledge that the majority of farms in developing countries today are small (see Box 2). These farms are the basis for food security in their homelands.

⁶ This observation was made by Arthur Lewis, published in his famous 1954 article for which he won the Nobel Prize in economics. As cited by Timmer in Eicher and Staatz (1998), p. 200.

⁷ These are referred to as Lewis linkages, cited by Timmer in Eicher and Staatz (1998), p. 200; Fogel also studied linkages which work through labor markets but are specifically related to increased food intake, or food security (p. 205).

⁸ These are known as the Johnston-Mellor linkages and include contributions such as food for the industrial work force, raw materials for agro-processing industries, markets for industrial output, and export earnings that pay for imported capital equipment and intermediate inputs. Timmer in Eicher and Staatz (1998), p. 201. Also see Mellor (2004) re: the “employment multiplier”—for every job created on a farm, five are created in the non-farm sector.

⁹ Refers to Africa. Sahn et al, as cited by Gabre-Madhin and Steven Haggblade, (2004). “Successes in African Agriculture: Results of an Expert Survey,” World Development Report. p. 745.

¹⁰ Birdsall and others; curious statistical aberration because these things aren’t recorded – i.e., the livestock and other things saved under mattresses, that, with process of growth, are suddenly put to use and appear to generate “growth from nowhere.”

¹¹ Mellor (1995) as cited in Eicher and Staatz (1998), p. 61. Also Engerman and Sokoloff (1996) argue that a broad distribution of factor endowments, especially land, has been shown to contribute to more equitable long-term economic growth in both developed and developing countries, i.e., United States and Costa Rica.

Whether small or large, farmers in developing countries face tough challenges. Producers of traditional commodity crops have experienced a consistent decrease in prices as world demand has fallen behind supply capabilities. Meanwhile, prices for inputs continue to climb. Crops like coffee, tea, cocoa, rubber, and cotton, have become less attractive exports because of either fierce international competition or decreased overall demand. For many commodities, most of the value added is captured by agribusinesses in importing developed countries. From a development point of view, the goal is often to push value added activities back toward the farmgate, so that small, local players can participate more effectively and profitably. The next section outlines the principal challenges looking forward, which most observers agree are threatening to the future of developing country MSEs.

Box 2. Portrait of a Small Farm in a Developing Country

- Farmer and family live on a small plot of land. Part of the land is set aside for subsistence farming of staple crops (i.e., corn). The family has a few chickens, and perhaps a cow, goat or pig, which represent the family savings and insurance plan.
- The farmer may be part of the poorest segment of society and is likely to be illiterate. The farm may be in a remote area with poor or no road access. There are no water, power, or sanitation services available. Medical facilities are poor or non-existent.
- The farmer may have a space dedicated to low-tech processing such as dehydrating or fermentation. This can expand the farmer's sales options.

Source: Authors' experience

1.2 THE COMPETITIVE LANDSCAPE

Long-term trends like the decline in commodity prices and challenges associated with the modernization of agriculture appear to be minor issues when compared with the major structural transformation faced by developing country agriculture today. Change drivers include globalization and trade liberalization; a revolution in retailing led by supermarkets—the latest in a series of challenges associated with increasing concentration of ownership by global agribusiness firms; heightened consumer awareness and international standards, and advances in technology.

Discussed below, these elements in their ensemble are working to shrink the distance—geographical and otherwise—between local markets for agricultural goods in developing countries and the international market. This means that developing country agriculture and agribusiness are now

Box 3: Contribution of Smallholder Farming to Developing Country Economies

- In Sub-Saharan Africa, over 90% of the agricultural land and more than 85% of the population is engaged in small-scale farming. The individual contributions of these small farmers underpin the region's bulk commodity exports of cotton, cocoa, coffee, and tea. High-value export sectors rely completely on these small farms either for hired labor or for their skills as 'outgrowers' and smallholders.¹
- In Asia, the agricultural sector is characterized by small enterprises that, with the help of foreign investment, are beginning to scale up to export capability.² Cocoa in particular plays a significant economic role in Southeast Asia, where it is a major source of income for over a half million smallholder farmers.³
- Similarly, cocoa, coffee and other commodities dominate agricultural exports in other parts of the developing world, notably Latin America and East Africa, and are equally dependent on the output of smallholder farmers.

¹ Lambert, Andrew. "Poverty Reduction and Agricultural Trade in Sub-Saharan Africa: Recommendations for USAID Interventions". Submitted to USAID, Trade and Capacity Building Project by Nathan & Assoc.; March 2004.

² "Trade Capacity Building and Private Sector Development in Asia," a Workshop Report for Comments: Draft No. 1; Sponsored jointly by the OECD Development Co-operation Directorate, December 2003.

³ Myer, Margaret K. "Sustainable Cocoa Production in Southeast Asia," ACDI/VOCA, June 2005.

and will be increasingly affected by global competition, standards, and consumer preferences. On the surface, these trends appear to represent an enormous threat to smallholder farming and MSE participation in agriculture and agribusiness. On the other hand, promising examples do exist and there are principles (discussed in section III) which can be used to help groups of MSEs develop competitive strategies so that they benefit from their participation in markets, whether local, regional or global.

1.2.1 GLOBALIZATION AND TRADE LIBERALIZATION

As governments liberalize trade and businesses internationalize their operations, capital, labor, information, ideas, technology and goods flow more freely across borders every day. Developed country markets are no longer isolated, as competition becomes a worldwide phenomenon. This situation, while creating opportunities for some firms, overall represents a formidable challenge for developing country agriculture.

It is true that outward-oriented growth in developing countries can stimulate development in the agribusiness portion of the chain via demand for more sophisticated processing methods, durable packaging and efficient logistics. At the production level, however, small farmers may be forced out of business because larger commercial operations are better equipped to supply exporters or multinational buyers. Large and small farmers are also at risk when developed country agricultural products gain entrance to previously protected developing country markets. Faced with competition from imports, developing country farmers may need to change their market strategy, or in extreme cases, what they produce. The story of maize farmers in Mexico shows how social and cultural factors may affect farmers' decisions about what to produce, and represents a case where small subsistence farmers have fared badly as a result of trade liberalization¹².

On the other hand, increasing worldwide demand for products such as fresh fruits and vegetables, and access to high-end consumers in developed countries, represent lucrative growth opportunities for developing country farmers and exporters who can offer high quality products and reliable service. Niche markets offer additional opportunities, sometimes with “products from home” exported to increasingly large immigrant populations in developed countries. Multilateral, bilateral, and regional free trade agreements are increasingly providing openings for agricultural exports from developing countries. Some of the long-term benefits for MSEs include institutional reform that levels the playing field, clarification of standards for sanitary and phytosanitary measures, access to extended regional markets, and reduced transport costs.

1.2.2 SUPERMARKETS AND GLOBAL CONCENTRATION IN OWNERSHIP

In recent years, there has been an explosion in growth of large format food stores, and the sector has quickly been dominated by multinational chains (Belgian Food Lion, British Tesco, Dutch Ahold, French Carrefour and American Wal-Mart among them). In Latin America, for example, multinationals on average now constitute 70–80 percent of the top five supermarket chains per country following a “tidal wave” of foreign direct investment (FDI) in the retail sector. And their focus is no longer limited to capital cities and wealthier communities; they have penetrated deep into the food markets of the poor, spreading from urban areas to intermediate towns and even into rural areas. Nearly 40 percent of Chile's

¹² Although prices fell drastically for locally produced corn, farmers did not stop producing it. Henriques and Pate (2004).

smaller towns now have supermarkets, and in China they have moved beyond the coast to inland towns, including the more remote areas in the northwest, southwest and interior.¹³

Some countries and regions, however, will remain out of the reach of international supermarkets for several years to come. Multinational chains are most interested in establishing themselves where there is a vibrant and growing middle class. In countries like Kenya, the supermarket trend is growing, although traditional markets still dominate. In other African countries, such as the Democratic Republic of the Congo, globalization and liberalization have had much less impact and supermarkets are less important.

The consolidation of national and global food retailers is related to a larger phenomenon—the global concentration of ownership throughout the agribusiness sector. Table 1 shows the major multinationals which account for 85–90 percent of global food trade.¹⁴ These firms dominate agribusiness at the input, trading/processing, manufacturing, and retail levels.

Level of Chain	Firms with Highest Market Share
Inputs (seed, fertilizer, pesticide)	Monsanto, Dow, Dupont, Novartis, Syngenta, Bayer
Trading / Processing	Cargill, ADM, Bunge + Tyson/IBP, Smithfield, Purdue
Manufacturing	Unilever, Kraft, Conagra, Nestle
Retail	Walmart, Tesco, Carrefour, Ahold

Source: Heffernan and Hendrickson (2002)

As Fitter and Kaplinsky (2001) note, “we are witnessing a simultaneous process of power concentration in importing countries, and power deconcentration in producing countries.”¹⁵ At the wholesale level, consolidation or merging of buyers has meant that market power has shifted out of the hands of producers to the large corporations who bulk buy goods. At the retail sector, the rise of the supermarkets has also meant that supply chains must be monitorable and contracts are only given to those producers who meet increasingly international food safety standards.¹⁶

¹³ Reardon, Thomas C., Peter Timmer, and Julio A. Berdegué. 2003. “The Rise of Supermarkets in Latin America and Asia: Implications for International Markets for Fruits and Vegetables.” Agriculture Information Bulletin: Global Markets for High Value Food Products, Anita Regmi and Mark Gehlhar (eds.), USDA-ERS.

¹⁴ Heffernan and Hendrickson (2002).

¹⁵ This reference was specific to coffee, however, the authors hypothesize that similar trends can be observed in other agricultural-based value chains. Fitter and Kaplinsky (2001), “Who Gains from Product Rents as Coffee Market Becomes more Differentiated? A Value Chain Analysis.” Institute of Development Studies, Sussex.

¹⁶ Rupert Best, Shaun Ferris and Antonio Schiavone; from Conference Beyond Agriculture: Making markets work for the poor; Paper presented, “Building linkages and enhancing trust between small-scale rural producers, buyers in growing markets and suppliers of critical inputs.” February 2005

Market domination by large multinationals has clear implications for MSEs. Such a structure means market power is concentrated in the hands of a few large firms and barriers to entry are high. Buyer power is already felt throughout the supply chain in the form of pressure to reduce costs and meet ever-increasing quality requirements. Large retailers have developed more closely integrated supply chains and reduced inefficiencies. Also, as discussed below, quality is increasingly defined by private industry standards.

Box 4: Tough Questions

A quote from a Salvadoran farmer exemplifies how small producers are being squeezed on both sides:

“How come when we buy they set the price and when we sell they set the price?”

Source: Peter O’Driscoll, “Food, Agriculture and the Fate of Small Farmers,” presentation given during the Ecumenical Advocacy Days, March 7, 2004.

1.2.3 HEIGHTENED CONSUMER AWARENESS AND REQUIREMENTS TO COMPLY WITH STANDARDS

Standards and grades have always been a part of the process by which prices are set and deals are made in agriculture and agribusiness. Agricultural products vary greatly in their intrinsic characteristics. Some, such as color or odor, are recognizable to the naked eye, whereas other characteristics related to the production process (i.e. the use of pesticides, moisture content, etc.) may require testing. Traditionally standards in developing countries have been informal, and based primarily on product shelf life, with buyers and sellers bargaining over products that can be assessed physically.¹⁷

Global markets, for a number of reasons, require formal and widely recognized standards. Products are handled in large volumes over greater distances. Buyer power has increased, and standards reduce buyer and retailer risk, as well as increasing shelf life and reducing waste. Standards permit trade by specification, reducing transactions costs. Banks are more willing to provide credit for goods with a known market value.¹⁸ In addition to these concerns, increased consumer awareness in developed countries has driven the implementation of sanitary and phytosanitary measures to address health and safety concerns, social standards to protect workers, and environmental measures such as reduced pesticide levels. The phenomenal growth of the organic market in recent years is one example of how consumer preferences are influencing agricultural practices.¹⁹

Formerly, standards were seen as the domain of the public sector while grades were determined by the private sector. Standards and grades today are increasingly determined and enforced by private industry. While many developing country ministries of agriculture continue to offer or require certain types of certification for sale or export, in many cases the standards used are less strict than those required by buyers, and thus they are irrelevant. In other cases, developing country governments lack the capacity to administer and enforce standards.

¹⁷ Walker, David J. (2005), “Enabling Rural Producers to Understand and Better Satisfy the Product, Process and Delivery Standards Required by Buyer,” Natural Resources Institute, Chatham Maritime, UK, p. 2.

¹⁸ Ibid.

¹⁹ “USDA does not have official statistics on U.S. organic retail sales, but information is available from industry sources. These sources sometimes produce conflicting statistics. New Hope Natural Media’s Natural Foods Merchandiser (NFM), an industry trade publication, published estimates of U.S. organic sales through all channels (including exports) from 1990 through 1996, which showed sales growing 20-25 percent annually and reaching \$3.3 billion in 1996. New Hope Natural Media subsequently revised its survey methods, and reported statistics about the industry in the Nutrition Business Journal (NBJ). The NBJ reported industry sales of \$3.47 billion in 1997, \$4.15 billion in 1998, \$4.89 billion in 1999, \$5.9 billion in 2000, and \$7.10 billion in 2001. Another market research firm, Packaged Facts, reported total organic retail sales through all outlets between 1996 and 2000. The firm estimates that organic food sales were \$7.8 billion in 2000, a 20-percent increase over 1999 sales.” <http://www.ers.usda.gov/Briefing/Organic/Questions/orgqa5.htm>

There are numerous potential benefits for developing countries conforming to standards, such as: reduced transaction costs, access to more stable markets and high-end consumers, increased earnings, reduced post-harvest deterioration, improved health and safety of workers and consumers, and greater provision for worker welfare and environmental issues.²⁰

Furthermore, certifications offer producers an opportunity to add value and/or differentiate their products. However, it is no wonder if developing country producers feel overwhelmed by the range of certification options they face: shade-grown, HACCP, organic, bird-friendly, ISO 9000 and 14000, fair trade.... the list goes on. Some certifications are mandatory, such as certain SPS procedures, which are required by APHIS/USDA and/or FDA. Other, “boutique” certifications are voluntary. Certifications can be quite expensive, and usually have to be updated/renewed annually. Some are required by each producer, others can be handled at the collection point by an organization (perhaps a cooperative or association). Some can be obtained in a few days or weeks, others take years (such as organic certification, which takes a minimum of 3 years).

There are three general categories of standards and certifications: quality (including food safety), environmental, and social (such as labor standards). Key components of compliance with standards and certifications include:

- The ability to trace a product (or input) back to its source of origin. “Traceability” is the ability to trace and follow food, feed, food-producing animal or ingredients, through all stages of production and distribution – from “seed to table.”
- Auditing systems. There is a wide range of systems ranging from self-declaration to third-party by specifically and formally accredited certifiers. Clearly the costs can vary drastically depending on the demands of the audit system.
- Labeling. Some products have specific and mandatory guidelines for labeling; many do not. Systems for labeling requirements are fragmented and inconsistent throughout the world; this is a source of confusion for both producers and consumers.

Compliance with international standards and certifications pose two potentially inhibiting barriers for small producers trying to gain access to foreign markets: 1) it is not always easy to gain knowledge of these standards, and 2) even armed with knowledge, producers may lack the skills, technology and capital to implement the measures necessary to comply with the standards. Under the best of circumstances, compliance with international standards may simply be prohibitively costly for small developing country producers. Some national governments and international donors have focused their interventions on reducing these barriers.

There are examples that show how certification can provide an entry ticket to new markets and result in rapid growth. In 2001, three small melon exporters in Brazil’s northeast

Box 5. Experience with development interventions to promote certification has yielded the following principles:

- Qualifying for certifications can be very expensive, and the market dictates the price it will pay for certified products. Therefore, cost-benefit analyses should be conducted before promoting any certification programs.
- Certifying entities that can provide multiple certifications with one inspection should be supported. This will reduce the producers’ and processors’ certification costs considerably, and ultimately benefit consumers as well.
- Since many certifications must be audited by third-party (usually international) entities, training for in-country auditing and audit preparation should be promoted.

²⁰ Walker, David J.(2005), “Enabling Rural Producers to Understand and Better Satisfy the Product, Process and Delivery Standards Required by Buyer,” Natural Resources Institute, Chatham Maritime, UK.

succeeded in joining the preferred provider list for the French supermarket chain Carrefour. Over the next three years, they graduated from providing melons to a few supermarkets in their region to 67 hypermarkets throughout the country, and then to stores in the 21 countries where Carrefour operates.²¹ A central challenge for agriculture development today is learning how to facilitate such processes to include and benefit small producers.

1.3 VALUE CHAIN FRAMEWORK

The examples above illustrate how globalization and trade liberalization are forcing small farmers and agro-processors to conform to international standards. Many formerly remote markets are no longer isolated, and MSEs find themselves competing with similar firms in other countries, or with multinational firms in their own markets. In such circumstances, improvements made at the firm level are often necessary but not sufficient. To be effective, development projects need to address multiple issues within the larger market system. This paper adopts and recommends a useful framework to diagnose problems and develop solutions, called the “value chain” lens.

A value chain traces the flow of products from the input stage to the final consumer. This basic analytical practice was originated by agricultural marketing specialists in the 1950s and 1960s.²² Taught at Harvard Business School under the name “commodity systems analysis,” and later termed “sub-sector analysis,” the technique has been used for decades by private agribusiness firms, development practitioners, and academic researchers. Key insights are related to the presence of competing channels through which products may flow, and the difference in prices between each stage (for any given stage, the difference in prices minus the cost is equal to the value added).

More recently, Michael Porter and researchers at the Sussex Institute of Development Studies (IDS) have also used the term value chain to denote “the full range of activities which are required to bring a product or service through the different phases of production and delivery to final consumers.”²³ The activities that comprise a value chain can be contained within a single firm or divided among different firm; activities can be contained in a single geographic location or spread over wider areas.²⁴

Porter and others also introduced the term “competitiveness” into the development and business lexicon. Defined as sustained increases in productivity, competitiveness is related to the concept of *competitive advantage*—that which is created by firms, as opposed to comparative advantage which occurs naturally in economic systems, and is associated with elements such as the abundance of natural resources or cheap labor.

The value chain framework as it is used in this paper builds on the earlier work of agricultural economists, incorporating some useful concepts developed by Porter and the researchers at IDS:

²¹ Reardon, Thomas; Department of Agricultural Economics, MSU. Presentation at seminar; Supermarkets, Standards and Small Farmer Access to Dynamic Markets: Implications for Development Programs; April 2004.

²² Goldberg, Ray (1974) *Agribusiness Management for Developing Countries – Latin America*. Balinger Publishing Company, Cambridge, MA.
Haggblade, Steven, Torben Reopstorff; "Subsector Analysis: Operational Diagnostics for a Complex Rural Economy." (forthcoming).

²³ Humphrey and Schmitz, 2000; Gereffi, 2003; and Kaplinsky and Morris, 2001.

²⁴ Kula and Downing, BDSK&P strategy paper draft, forthcoming.

- Value chains today are global and, in this context, cooperation among firms is critical to competitiveness.
- Power relationships among firms in a chain drive the nature of inter-firm cooperation, including vertical (buyer-supplier) and horizontal (among like firms) linkages, and shape opportunities for upgrading. Power in value chains typically translates into benefits, including profits as well as reduced risk.
- Market information and technological know-how may come from buyers or input suppliers; chains that function effectively are those that have developed mechanisms to transmit learning at all levels.
- Markets tend to grow first vertically. As more product and money flow up and down the chain, demand will drive the development of a market for supporting services.

Value chain analysis can be used to understand systemic competitiveness, derived from the ability of firms linked either vertically or horizontally to realize efficiencies and economies. It is also used to illuminate opportunities for MSEs in targeted value chains; to identify constraints on and opportunities for the chain as a whole as well as those that most affect MSE participation; and to develop interventions. The value chain lens used throughout this paper is a convenient way to deconstruct the critical elements of success for MSE participation in agriculture and agribusiness.

II. THE NATURE OF MSE OPPORTUNITIES IN AGRIBUSINESS CHAINS

This paper adopts the premise that interventions in agriculture and agribusiness should seek to include MSEs because in appropriate instances they can participate in and contribute to the competitiveness of targeted value chains. Moreover, by fostering MSE participation in growing value chains, development practitioners may be able to achieve economic growth that reduces poverty. The logic is that private sector development interventions should seek to enhance opportunities for viable business activity, in such a way that benefits are broadly distributed.

2.1 OPPORTUNITIES FOR MSE COMPETITIVENESS

In the agriculture/agribusiness sector, the nature of MSE opportunities or even whether or not they are likely to exist often depends on characteristics of the agricultural product. For example, mint and radishes are sold in small lots, so it is easier for MSEs to be involved in transport and distribution of these products. Thus, the production level of the chain is critical in determining the type, nature, and number of MSE opportunities as they relate to other product-specific activities throughout the chain.

One of the most enduring works on small enterprise development, *Modern Small Industry in Developing Countries*, by Staley and Morse (1965), identified five characteristics of industry functions that favor small firm participation: (a) seasonal activities; (b) low capital requirements; (c) relative labor intensiveness; (d) non-repetitive production processes, and (e) small production volumes.²⁵ These factors relate to the product characteristics (such as small volumes) mentioned above and to other advantages, such as flexibility or low overhead costs, that are typical of small firms.

The opportunities matrix below identifies several additional factors specific to agriculture, agribusiness and rural enterprise, which shape the nature of MSE opportunities. For example, population density can be important. For the distribution of inputs, low population density offers advantages to MSEs as distributors of inputs where large firms may not be interested in working. On the production side, high population density makes smallholder collaboration, consolidation of product—and thus cultivation—more viable. Specific crop strains may offer advantages to smallholders, depending on the inputs, land conditions, and other requirements associated with their cultivation. Wild plants in remote areas are more amenable to MSE harvesting. Non-perishable products are easier for MSEs to market because the risk of spoilage is eliminated.

In essence, the characteristics cited above represent the elements of MSE *comparative* advantage.²⁶ For MSEs to compete successfully over the long-term, they will need to be part of value chains that allow them to turn these comparative advantages into a *competitive* advantage.

Typically, development practitioners associate the “production” step of the agribusiness chain with the presence of large numbers of small farmers. Indeed, the challenges associated with upgrading small farmers’ production, making needed services available to them (i.e., credit, extension services), and building sustainable market linkages, are central to most agriculture development projects. Likewise, many agribusiness projects focus on processing. As Table 2 below illustrates, however, there are MSE opportunities at all levels of the chain. “First-level aggregators,” or small-scale middlemen, often collect less perishable products (i.e., rice, maize) from farmers and offer transport to local or regional markets. In some countries, depending on the market context, it is also common for small-scale middlemen to collect

²⁵ Staley and Morse (1965).

²⁶ Admittedly some characteristics, such as low perishability, do not offer any particular advantages to small firms but rather allow them to compete on an equal footing with large firms.

and consolidate perishable fruits and vegetables. Once at the market, there are numerous entrepreneurs referred to colloquially as “loaders and lumpers” or “packers and re-packers,” who offer their services to buyers and sellers alike. Moving to the retail level, MSEs may dominate transport and distribution in local markets, precisely because there are many points of sale, each serving consumers purchasing small quantities with cash.

Table 2 offers further examples of where, when, and how MSEs participate in developing country agribusiness value chains. The vertical axis of the matrix depicts the steps of a typical agribusiness chain: input supply, production (farming, cultivation, gathering or fishing), post-harvest handling or primary processing, marketing (includes processing, packaging, transport, and storage), wholesaling and retail.²⁷ While the exact division between tasks such as post-harvest handling and processing may vary from one product to another, by and large these are the major steps one would expect to encounter in a developing country agribusiness chain.

The horizontal axis of the “opportunities” matrix is divided into four columns, each related to the nature of MSE competitiveness. At one extreme (left), the production stage contains a list of agricultural products—namely commodities such as wheat, soy, corn, etc.—in which there are clear economies of scale, and in developed countries at least these tend to be dominated by large, capital intensive farming operations. These products, in general, represent the least attractive opportunities for smallholders—although as the matrix shows there may still be opportunities for MSEs in local markets, both in production and at other levels of the chain.

At the other end of the spectrum (right) are the products that, simply by their nature, are inherently attractive from the MSE perspective—and difficult for large farms to cultivate. These products and their associated activities are listed under the column titled “MSE dominated.” Classic examples would include spices, nuts, wild berries and other specialty fruits. These products can command premium prices at the retail level, enough so that even small farmers way down the chain receive decent returns per hectare. Such products may require very specific natural conditions (such as climate, soil, water) that are available only in certain microregions. Harvesting and post-harvest treatment may require labor intensive, nonrepetitive techniques. Moving down to the processing level, these products may be processed by MSEs if there are technologies available that do not require large capital investment (e.g., vanilla bean fermentation). Otherwise, large agribusiness operations may enter the picture at this stage.

²⁷ The term “marketing” can be used to include all intermediate steps between the farm and the consumer. It is used here to refer to a critical group of activities through which the product is transformed and transported to market. Wholesale and retail activities are treated separately in order to allow for a more detailed treatment of the types of MSE opportunities that exist as part of these steps.

TABLE 2: WHERE ARE THE OPPORTUNITIES FOR MSEs?

Stage in Value Chain	Dominated by Large Farms or Companies (Examples)	MSEs Can Be Competitive in Regional or Local Markets	MSEs Can Be Competitive in World Markets	Dominated by MSEs (Examples)	Comments
Input Supply	<p>The market for seeds, fertilizers, and pesticides is dominated by a small number of multinational firms (Monsanto, Dow, Dupont, Novartis, Syngenta, Bayer.)</p> <p>Packaging is a major factor affecting product quality. Production of cardboard boxes and other packing or shipping materials is very capital intensive, and therefore the barrier to enter is high for MSMEs.</p>	<p>In some rural areas cooperatives or MSEs repackage and re-sell small amounts of seed or fertilizer. MSEs do manufacture simple farm tools and implements. MSEs may also be distributors or agents for MSE-appropriate technologies.</p> <p>MSEs may operate or supply nurseries with plant material, seedlings, tree saplings, etc.</p> <p>Member-based cooperatives or associations can pool resources to purchase and/or distribute inputs in bulk.</p>	n/a	There are some examples of more innovative technology tailored for MSE use such as drip irrigation kits and treadle pumps; MSEs are often used as distributors for these inputs as well	<p>Opportunities for MSE repackaging and distribution tend to be greater in areas with low population density.</p> <p>Packaging can be a simple and effective value added activity (for example packing bulk dried beans into consumer-sized bags).</p>
Production	Most undifferentiated commodities are usually dominated by large companies, i.e. grains such as corn, soy, wheat	<p>Honeycare Africa (Kenya, Tanzania)</p> <p>Coffee</p> <p>Dairy (milk)</p> <p>Meat</p> <p>Fresh fruit and vegetables</p> <p>Rice</p> <p>Sugar cane (Mali)</p> <p>Corn</p> <p>Quinoa</p>	<p>Cotton (Francophone Africa, Egypt)</p> <p>Coffee (specialty)</p> <p>Dairy (cheese, yogurt)</p> <p>Fresh fruit and vegetables (i.e. Kenyan green beans, tropical fruit)</p> <p>Cashews</p> <p>Specialty rice (i.e., Chinese black rice, Bhutanese red rice, Thai sticky purple rice)</p>	<p>Fishing and aquaculture (carp in China, trout, tilapia)</p> <p>Spices, dried herbs and medicinal crops (vanilla, paprika, black pepper, saffron)</p> <p>Nuts (shea nuts, Brazil nuts, cashews, pistachios)</p> <p>Wild Amazon berries (açai)</p> <p>Organic capers</p>	<p>Opportunities for MSE production are greater in areas with high population density.</p> <p>High yields per unit of land are required to make cultivation viable for small farmers.</p> <p>Also useful are methods in which crops are pooled for certain operations like pesticide treatment or sale (such as cotton).</p> <p>Products which are</p>

Stage in Value Chain	Dominated by Large Farms or Companies (Examples)	MSEs Can Be Competitive in Regional or Local Markets	MSEs Can Be Competitive in World Markets	Dominated by MSEs (Examples)	Comments
Production (continued)		<p>Feed</p> <p>Potatoes</p> <p>Onions</p> <p>Beans (dried)</p> <p>Heart of Palm</p> <p>Oil seeds</p>	<p>Bananas in Ecuador</p> <p>Rubber in Malaysia</p> <p>Cocoa (Indonesia, Ghana)</p> <p>Organic products</p> <p>Meat delicacies (i.e., Mongolian goat intestines)</p> <p>Cashmere, pelts</p> <p>Specialty plants</p> <p>Mango (India, Mexico)</p> <p>Onions (scallions)</p> <p>Avocados</p> <p>Caterpillars /silkworm</p> <p>Olives (Azerbaijan, Jordan)</p>	<p>Dorian fruit (Vietnam)</p> <p>Niche and “products from home,” targeted to diaspora markets in developed countries.</p>	<p>gathered rather than cultivated (i.e., nuts and berries) may favor rural family units. Some of these products can also be cultivated on plantations, however – such as cashews and açai.</p> <p>Some small farmers are competitive despite the advantages of scale – for example, in Ghana, the high quality of cocoa is due to the genetics of the cultivars; in Indonesia quality is low but small cocoa producers dominate the world market for low-grade cocoa.</p>
Post-harvest (washing, drying, de-leafing, selection, sizing, grading, packaging etc.) Typically done on or near production site.	Mechanized processes	<p>Some processing can be done manually with low investment, such as paprika or vanilla small box fermentation. MSEs can also perform mechanized processing in cases where equipment is affordable and can be used for small quantities, or crops are easily pooled.</p> <p>In local markets, a large number of small middlemen</p>	MSEs may be involved if processes are manual or resist mechanization		Post-harvest handling or primary product processing serves mainly to stabilize the product. At this stage, quality is still variable. There is a trend to push the applications of standards back closer to the producer, so that products not making the grade get eliminated early on and do not have to be transported.

Stage in Value Chain	Dominated by Large Farms or Companies (Examples)	MSEs Can Be Competitive in Regional or Local Markets	MSEs Can Be Competitive in World Markets	Dominated by MSEs (Examples)	Comments
		purchase, store, and transport these products.			
Marketing (processing, packaging, transport, cold storage, etc.) Typically done at separate facility.	Technologically sophisticated (i.e., pasteurization)	<p>First-level aggregators buy and accumulate small lots of production, i.e. grain in Africa, maize and rice in Asia. These middlemen assemble volumes up to the level of truckload (3-11 tons) and then sell to traders. In some countries, MSEs less widespread for aggregation of fresh products because there is need for washing, cold storage, etc.</p> <p>Also, smaller processing units, i.e. sorghum processing in Mali, rice milling in Thailand, Cassava in West Africa and maize in South Africa.</p>	MSEs may be involved if processes are manual or resist mechanization		<p>At this stage, for example, paprika will be sorted into A and B pods – earlier on, producers and middlemen took lower grade produce to local market with simpler packaging.</p> <p>Non-perishable products are easier for MSE farmers and/or transporters to handle – i.e., if the truck breaks down, the product can sit until it is repaired without spoiling.</p>
Wholesale	Large retailers (e.g. supermarkets) are increasingly opting to purchase directly from producers, cutting out the wholesaler.	<p>Small traders typically link poor, remote rural communities to regional markets. Traders often provide other services such as credit and transport.</p> <p>At the wholesale markets, there are a plethora of MSEs working to pack, re-pack, load, and sort products, as well as clean market stalls. MSE services may be especially appropriate when the product is small or sold in</p>	Minimal MSE opportunities		Physical wholesale markets for commodities are disappearing – prices are negotiated in relation to world markets. Producers supply mills directly, and mills in turn supply distributors.

Stage in Value Chain	Dominated by Large Farms or Companies (Examples)	MSEs Can Be Competitive in Regional or Local Markets	MSEs Can Be Competitive in World Markets	Dominated by MSEs (Examples)	Comments
		small quantities (i.e., mint, radishes).			
Retail	Supermarkets (i.e., Belgian Food Lion, British Tesco, Dutch Ahold, French Carrefour and American Wal-mart)	MSEs can act as distributors for small independent retailers – which do still exist, especially in poor or remote areas, although they are threatened by the continued penetration of supermarkets.	Retailing may take place in a foreign country, thus local MSEs are not involved.		

The matrix is necessarily simplistic; it cannot do justice to the complex nature of markets for agricultural and food products, which at the most basic level are segmented into industry, food service and retail, and then beyond that into multiple niche markets. Also, in addition to the vertical steps in the chain there are a number of critical supporting services such as agricultural extension and finance that serve as indirect links—they are provided to the main players in the value chain. Some of these, such as agricultural extension, may also offer opportunities for MSE employment.

It is also difficult to portray, on the same scale, two vastly different markets—local markets in developing countries and global food markets. The architecture of global markets is such that there are some brands of couscous—a staple food in many African countries—that get shipped to the United States, packaged and shipped back to Africa to be sold in supermarkets. This illustrates how the huge volumes involved in global retailing can lower per-unit costs so that it is difficult for local firms to compete.

There are valid questions to be asked about whether all of these MSE opportunities are viable in the long term. As retailers consolidate and physical wholesale markets disappear, so will a number of MSE functions. Thus, it is critical to keep in mind the dynamic nature of today's markets, and evaluate opportunities carefully vis-à-vis their projected life span. If an entire channel is not competitive, then even the most productive MSEs within that channel will eventually face difficulties.

The conclusion would *appear* to be that smallholders should focus on high-value crops for international specialty food markets, while MSE involvement in other functions such as processing, transport, distribution, may or may not be viable depending on the context. One part of this conclusion should be viewed with healthy skepticism, however – namely the orientation towards international markets. Long-term experience with donor projects suggests that the challenges associated with making the transition—from supplying agricultural products locally to penetrating international markets—should not be underestimated, and though it is not always possible, there are significant benefits associated with developing high-end *local* markets.²⁸ In addition, there may be untapped opportunities to increase local efficiencies in collection distribution and sales.

²⁸ Don Humpal warns “Often MSE groups and donor project staff see high end prices in the world market without understanding the cost structure. I have seen many failed projects which have worked to organize MSEs, swamped local markets, and then tried to jump over to global channels, recreating the wheel in the process. In reality if the products have potential there will be some identifiable demand ‘pull’ from commercial actors.” Expert opinion interview August 24, 2004.

III. CRITICAL SUCCESS FACTORS

As the previous section has shown, there are a number of ways in which developing country MSEs can participate in competitive agribusiness value chains—for example, in the production and processing of specialty food items sold internationally, or traditional products sold in local and regional markets. In local markets, there are opportunities for MSE producers, aggregators, transporters and distributors. Ongoing changes in the competitive landscape, however, foreshadow challenging times ahead for small enterprise. Most local markets will not remain isolated from international competition or standards, and thus may not offer viable long-or medium-term prospects for MSEs. International markets, while they in principle offer significant opportunities for MSE growth and upgrading, are characterized by increasing barriers to entry (grades, standards, and certification) and concentration in ownership at many points along the chain.

Donor interventions aiming to achieve broad-based growth in agriculture and agribusiness should develop **competitive strategies**, which build on the advantages held by small business units—such as low-cost labor, flexibility, customization, access to land or raw materials, or unique products. To design and implement MSE-friendly competitive strategies, practitioners will want to analyze and address the critical success factors discussed in this section: the business environment; vertical and horizontal linkages; upgrading and sustainable supporting markets. The discussion that follows offers examples to illustrate how these critical factors can be leveraged to enhance MSEs’ participation in agriculture and agribusiness.

3.1 THE POLICY, REGULATORY, AND BUSINESS ENVIRONMENT

The policy, regulatory, and business environment – called the “enabling environment” - refers to the myriad international, national, and local public and private policies, regulations, and standards that define the rules of the market. Elements of the enabling environment range from multi- and bilateral trade agreements, to national economic policies, to the general resources available to business and agriculture (i.e., infrastructure, human capital and technology).

3.1.1 The International Enabling Environment

The World Trade Organization and its Dispute Settlement Body (DSB), have a mandate to further the liberalization of agricultural trade. As part of this movement developed countries may lower their protection of agriculture; recent disputes over domestic subsidies provided by Europe (sugar) and the United States (cotton) have been resolved in favor of claimants including developing countries (Brazil and Thailand)²⁹. If indeed developed countries reduce subsidies, developing country agriculture could benefit, though in many cases the products in question are cultivated by large-scale farmers.

In addition, bilateral and regional initiatives – free trade agreements (FTAs), regional integration agreements (RIAs) or association agreements – continue to open up agricultural trade between and among major markets and partners in the developing world, and to integrate regional markets in Asia, Africa and Latin America. The United States is implementing several free trade agreements beyond NAFTA, with countries such as Australia, Jordan, Chile, and has just concluded another one with Morocco. An agreement with Central America, CAFTA, is also moving forward. These agreements push participating countries to lower tariffs and other barriers while offering export opportunities to agricultural producers and agribusinesses. The result is that farmers must diversify from “traditional” crops such as beans and maize.

²⁹ <http://www.ipsnews.net>

The consolidation of buyer power also means that the global framework for agriculture and agribusiness is increasingly defined by lead firm requirements. In such a setting, private industry standards such as EUREPGAP³⁰, HACCP³¹, or the need for third party audits may, in effect, supersede phytosanitary and other regulations imposed by developed countries on agricultural imports.

3.1.2. The National Enabling Environment

Growth of the food and agricultural sector is intertwined with growth in the rest of the economy, and both are only possible if a set of macroeconomic policies are in place to permit the efficient allocation of resources. Listed below, from the macro to the micro, are a few of the most relevant components of a national business environment that is supportive to the growth of farms and agriculture-related firms of all sizes:

- **Budget policy** has a direct impact on agriculture through the funding of projects, programs, and rural investments such as roads, irrigation systems and agricultural research and extension. This affects the technological environment in which farmers operate and also may include food subsidies. An appropriate macroeconomic policy environment will weigh the relative importance of making investments in the agricultural sector versus adopting policies that favor urban workers and consumers³².
- Budget policy feeds into **macroeconomic price policy** (foreign exchange rate, interest rate, wages and inflation). Price policies in turn affect **commodity prices**; as well as the **terms of trade** between domestic and international goods and rural-urban goods.
- **Liberalized trade policies.** Firms may have trouble obtaining export licenses or importing production inputs. It is common for developing countries to rely on customs duties for incoming products to support their tax base, for the simple reason that it is possible to control and monitor the point of entry. The result can be prohibitively high import taxes on farm machinery, fertilizer and other inputs – seriously compromising the agriculture sector’s ability to compete with other countries.

Box 6. Import Restrictions

- New plant varieties enter the markets each season, and competitive agriculture industries must be ready to respond. Getting access to a “hot” new variety in the fourth or fifth season is too late – other countries have already secured the markets and buyer relationships.

³⁰ EUREPGAP started in 1997 as an initiative of retailers belonging to the Euro-Retailer Produce Working Group (EUREP). Its scope is concerned with practices on the farm (GAP - Good Agricultural Practices). This private food safety certification includes standards for labor, the environment, and ‘fair trade.’ See www.eurep.org.

³¹ Hazard Analysis and Critical Control Point: Originally developed in the United States, HACCP is a food safety certification commonly required by European importers of agricultural (including processed) goods.

³² Recent literature on agricultural development uses the concept of “food policy,” a conceptual approach which helps resolve the apparently contradictory “food price dilemma” which confronts all poor societies. According to this dilemma, high food prices help farmers raise rural productivity and household income, while low food prices help poor consumers gain access to adequate amounts of food.³² Thus it appears that there are trade-offs between policies that benefit the urban or rural sectors. Timmer (in Eicher and Staatz, 1998) offers a way to reconcile the trade-offs in the food-price dilemma posed above, which involves a phased approach to agricultural development. In the least developed economies, significant investments should be made in rural infrastructure and technology to “get agriculture moving,” and the price structure and incentives should favor production. One of the major goals of this stage is food security. The second stage views “agriculture as a contributor to growth” and involves establishing market links with industry, and improvements in factor markets to mobilize rural resources. The third stage, “integrating agriculture into the macro-economy,” is characterized by the declining share of food in urban budgets, and there is a push to make agriculture efficient and shift resources out of the sector. In the last stage, “agriculture in industrial economies,” food represents a small share of consumer budgets and agriculture a relatively small share of labor and output. A number of challenges may remain, however, such as income distribution, unemployment in the industrial sector, environmental concerns and “way of life” issues.

Clearly defined **property rights**, including intellectual property, are important to developing country agribusiness firms. Firms may want to import patented protected plant varieties; investors may want to buy land and make productive investments. Many developing countries do not have mechanisms to document land ownership; indeed, many countries (such as Ethiopia) do not allow private land ownership. This has significant negative impact on producer-entrepreneurs' willingness or ability to access credit (since they cannot use land as collateral) and/or making capital investments on leased property (such as irrigation systems or greenhouses).

- **Consumer and environmental protection.** Many countries, in a well-intentioned attempt to protect consumers or the environment, issue contradictory or competing regulations with cross-purposes. Deciphering the plethora of regulatory issues can be a major challenge for small firms – in their local markets, and for regional and export destinations as well.
- **Contract law.** Lack of contract enforcement is a common deterrent to outgrower schemes and product sourcing agreements between developing country producers and buyers in developing countries. Buyers who have no recourse if producers do not deliver are unlikely to provide advance inputs, payments or technical support, which are key requirements for successful outgrower schemes.
- **Competition law.** Laws can prevent large agribusiness firms from “predatory pricing,” or selling below cost in order to eliminate smaller firms from the paying field.
- Producers and exporters of agricultural products are often frustrated by **financial regulations** that provide disincentives to growth or exports, i.e., restrictions on foreign exchange, the ability to finance purchases of inputs and equipment with lines of credit, and the availability of letters of credit and/or purchase agreements to support export transactions.
- **Research and development capacity.** In developed countries there is a “virtuous circle” whereby well-educated and entrepreneurial farmers contribute to research that takes place in universities and private firms, while both the government and the private sector, via research projects, supply the farmers with funding, technical, and business assistance.³³ Despite donor efforts to build research capacity during the 1970s and 80s, this virtuous circle is usually absent in developing countries. Perhaps most important, going forward, is ensuring that research and development efforts are responsive to the needs of the private sector – meaning developing country farmers and agribusiness.

3.1.2 HOW INTERVENTIONS CAN FOCUS ON THE ENABLING ENVIRONMENT

Donor assistance can be used to improve policy and regulatory functions through capacity building at the government and industry or commodity group association levels. The following three aspects of policymaking and regulatory enforcement are important from the perspective of MSE integration:

- **Participatory policy development.** It is now common practice to bring together stakeholders—including ministry and customs officials, large buyers or exporters, and representatives of smallholder or agribusiness MSEs (usually represented by their relevant association). Broad stakeholder participation throughout the process can ensure that changes in regulations are necessary, relevant, and they are actually implemented.

³³ Rivoli (2005), talks about how labor-intensive cotton farming was until “the USDA and university scientists invented these jobs away.” Where the farmers’ sons used to stomp on the cotton, a hydraulic press now “turns it into a snowy brick”; irrigation pipes have been replaced by a “giant computerized sprinkler”, and chemicals have almost completely eliminated the need for weeding.

- **Enforcement.** In many developing and transition countries, there are actually laws on the books that theoretically protect the rights of small landholders, establish a fair tax code, and govern commercial contracts. However, resource constraints on the part of regulatory agencies and the court system, a lack of awareness by the general public, ingrained cultural tradition, and general inefficiencies and/or corruption may prevent their enforcement. Programs that provide legal and other expertise to developing country policymakers typically look for ways to make sure reforms that are written into law are in fact implemented. For this to work, formalized and systematic methods of gathering feedback from the affected MSEs must be incorporated into the process; i.e., are their shipments being held unreasonably at borders? Can they import the inputs they need at competitive prices? Do governmental inspections and certifying agencies work?
- **Strength of the overall policy process.** Building a business-friendly regulatory environment that offers MSEs a chance to compete, is a cycle with several steps, including the development of a cohesive framework, translation into laws and regulation, promoting public awareness, enforcement, monitoring and assessment, adjustments, and revisions or new policy development. Policy projects wishing to influence change need to address the entire cycle.

3.2 VERTICAL LINKAGES

Vertical linkages refer to market and non-market relationships between firms operating at different levels of the value chain. In some developing country markets, vertical coordination has replaced vertical integration as the most desirable way for large buyers to source their products. MSEs may not be connected to value chains that reach beyond their local community. Understanding the entire chain and facilitating the establishment of these linkages are often among the initial steps needed to provide MSEs access to more promising market opportunities.

The relationships between buyers and their suppliers are often symptomatic of the larger economic order and closely related to the relative size and resources of each player. Power is likely to reside with those who control access to markets and information about competing suppliers; understand consumer demand; define grades and standards; know how to employ specific technologies or production processes, and possess the ability to advocate for policy advantages. In most cases, MSEs must operate their businesses within the limitations set by more powerful buyers, suppliers or both.

Strong and dynamic vertical linkages (the relationships between buyers and their suppliers) are critical to the long-term competitiveness of value chains, as well as to the inclusion of MSEs in those networks. These linkages are often the primary mechanism through which MSEs learn about changing market requirements. And it is through vertical linkages, in the form of contracts and other purchase agreements, that value chain coordination or governance is established.

Common mechanisms used to link large buyers to farmers include formal or informal supply arrangements, variously referred to as contracting, pre-contracting, outgrower schemes, and satellite farming. There is a useful distinction to be made between marketing contracts and production contracts. A marketing contract is an (oral or written) agreement between a contractor and a grower that specifies some form of a price or pricing system and outlet *ex ante*. Production contracts are more extensive forms of coordination and typically include detailed production practices, inputs supplied by the contractor, specifications regarding the quantity and quality of a commodity and a price or pricing system.³⁴ Production contracts may also offer support such as the provision of credit, technical assistance and/or

³⁴ Swinnen, Johan, "When the Market Comes to You – or Not," Final report of the World Bank on Dynamics of Vertical Coordination in ECA Agrifood Chains: Implications for Policy and Bank Operations. Unpublished memo, February 2005.

transportation. Contractors may be supermarkets, processors, or hotel, restaurant and institutional buyers. Such supply agreements spread the production and marketing risk between buyers and producers, capture economies of scale in bulk purchasing of inputs, reduce transactions costs, and provide a mechanism for buyers to source higher quality products.

Most buyers typically prefer to contract with larger producers, since transactions costs are lower, larger farms are more likely to be able to make necessary investments, and small farms usually require more assistance per unit of output. However, there are many circumstances under which large buyers will contract with smallholders.³⁵ In a “supplier’s market,” where there is a substantial gap between the amount of supply available and the amount demanded, buyers will work with small suppliers. In other cases, buyers may have no choice if small farms represent most of the supply base or control most of the land. In addition, contract enforcement may be more problematic with large farms. Processors may wish to diversify their supplier base, in order to ensure sufficient supply of raw materials at the right time and to avoid dependence on a few large suppliers. Small farms may have cost advantages in labor-intensive production activities. Last, farms’ willingness to learn and attitude may be more important than size.³⁶

These contractual linkages can assist smallholders to upgrade—move from subsistence farming or traditional agriculture to the production of high-value products for local or export markets. With a guaranteed buyer, farmers face less risk and may be more willing to make investments needed to meet production quality requirements. In addition to reducing risk, supply agreements also alleviate the need to obtain information on market requirements, since product specifications are a component of the contract. For example, food processing usually requires specific varieties of raw materials to meet finished product quality requirements and to efficiently operate the processing facility (low per unit costs are critical for competitiveness). This means that farmers must produce a certain variety of tomato—with specific color, viscosity, sugar content, etc.—if they are supplying a tomato processor,

While the benefits to small producers may include upgrading opportunities, contract farming is not always beneficial to MSEs. Small producers may be excluded; small producers may become trapped in unfavorable agreements and be unable to break the contracts; local markets may narrow as contracted production for goods demanded internationally squeezes out local production of staple goods; contract terms may deteriorate as contracts mature, and contract farming does not generally provide many opportunities for small producers to participate in value-added activities beyond the farmgate.

Production contracts are favored by buyers that need assured sources of time-specific supply, and are unwilling or unable to increase their own production. They are also popular with processors that require product variety not commonly grown or produced, i.e., fruits harvested in the wild, an onion variety well-suited to drying, high solids potatoes for French fries, or goat’s milk required for specialty cheese.

First popularized in developed countries in swine and poultry, contract farming is common throughout developing countries. In India and Thailand,³⁷ there are well-known examples of successful production contracting in the dairy and poultry sectors. In Latin America, production contracts are common in sectors as diverse as poultry, grains, dairy, fruits and vegetables, sugarcane, tobacco, tomato paste, and sesame

³⁵ Swinnen (2005) found significant evidence of contracting with small suppliers in the European transition countries and Central Asia; much more than would be predicted given the expressed preferences of the agro-processors. However, he cautions, those who are concerned about the inclusion of small farms should not be complacent, as supplier assistance program sometimes discriminate between farms with the focus on upgrading the better farms while ensuring a minimal supply base and quality from the rest as long as it is required.

³⁶ Ibid.

³⁷ Reardon and Farina (2001).

seed.³⁸ In the transition countries of Europe and Central Asia, disruptions caused by the privatization and restructuring of farms and agribusiness firms have left a gap in the supply of farm products for processing. Private contractual initiatives on the part of large traders, agribusinesses and food processors (labeled “vertical coordination” as opposed to vertical integration) have emerged to fill this gap.³⁹ In Kenya and other African countries, production contracts have long been used by traders, and more recently by supermarkets, to source fresh fruits and vegetables from smallholders.⁴⁰

The structure of contracts depends on several elements:

- **Consumer demand.** More discriminating demand calls for more stringent quality control, which can be structured into the contract. In some cases, this can be addressed simply by using appropriate packaging materials and procedures.
- **Commodity-specific characteristics.** For example, perishability, the frequency of harvests and/or deliveries, the ease with which quality can be ascertained, asset specificity (investments needed for the transaction), the nature of inputs, etc.
- **Transaction costs.** The nature and level of these costs vary by sector. Some transaction costs may be easier for large numbers of small-scale producers to bear jointly than one large farm by itself, or vice-versa.
- **Market power.** The balance between farmer and buyer affects stipulations and power distribution varies among commodities. In addition, the ability to access finance can tilt the power in the direction of one player, or force the inclusion of a third player (trader, bank) into the deal.
- **Risks.** Some risks may be easier for large numbers of small-scale producers to bear jointly than one large farm by itself, or vice-versa.⁴¹
- **Stage of market evolution.** In some markets, just securing an adequate supply is the main goal of production contracts, whereas in more developed markets the contracts tend to focus on quality measures. Another factor related to the development of markets is whether contracts are enforced, or they must be written containing incentives to make them “self-enforcing.”
- **Timing of harvest and delivery for processing.** Processing facilities need appropriate volumes of the right quality material (i.e., fruits, vegetables) to efficiently use their processing capacity.

3.2.1 HOW INTERVENTIONS CAN FOCUS ON VERTICAL LINKAGES

Often MSEs lack direct access to market signals because they are structurally and/or physically separated from large buyers. Development projects can help build technical, logistical, and organizational linkages forward in the chain, and can develop mechanisms that allow small farmers to meet the quality requirements of large buyers. Projects can:

³⁸ Swinnen (2005).

³⁹ Swinnen (2005).

⁴⁰ Weatherspoon and Reardon (2003).

⁴¹ Such as environmental pollution. Manure disposal, for example, has become a major impediment for large hog producers in the US, Taiwan, and Southeast Asia.

- **Partner with lead firms to develop contracting agreements that are equitable and foster learning by MSE suppliers.** For example, lead farmers who receive export marketing assistance from USAID provide inputs (seed, fertilizer, technical assistance) to “outgrowers” who supply specific crops for export. As the outgrowers learn, they are able to offer more value-added at the farmgate through activities such as in-field packaging.
- **Empower small farmers via education, the provision of information, and facilitating dialogue.** There are many examples of simple and affordable ways to provide small farmers living in remote areas with market information; these include community internet access and cell phone text messaging. Simply knowing the prices of their commodities in the capital cities gives the farmers far more negotiating power when dealing with buyers at the farmgate.
- **Stimulate competition in input and output markets to reduce power asymmetries.** Examples would include helping small farmers or exporters access new market channels, to reduce their dependence on one buyer or intermediary. Note: the idea is not to circumvent or eliminate existing relationships, but to help MSEs diversify their business contacts, thus allowing them more bargaining power.

3.3 HORIZONTAL LINKAGES

Horizontal linkages refer to market and non-market relationships between firms at the same level of the chain. MSE cooperation can take the form of informal or formal groupings of MSEs, as well as networks of MSEs that are managed or facilitated by a third party (e.g., lead firm, broker, trader, etc.) Development projects can contribute to the formation and strengthening of horizontal groupings as a way to increase the market power of small producers. Often these organizations (such as cooperatives or other member-based associations) provide a platform for smallholders to move into value-added processing activities; they also offer needed support services to their members.

Associations or cooperatives are frequently found in the agricultural sector, and development projects have been working with these entities for decades. When small farmers are grouped together, they can overcome many of the disadvantages of being small: lack of economies of scale, poor negotiating position with buyers and suppliers, inability to differentiate products, lack of access to market information and services needed to upgrade, and limited political clout.

Inter-firm cooperation can further enhance competitive position or market power when producer groups organize themselves to perform other functions in the value chain, such as purchase of inputs; post-harvest packaging and processing; transport, or sales and marketing. When competently managed, such initiatives can increase benefits to smallholders by allowing them access to profits from multiple levels of the chain. Organized groups may also provide access to knowledge and learning, reduce transaction costs, and offer services related to marketing, input supply, extension and business services, and advocacy. These services are described below

- **Marketing.** Farmers, especially smallholders, are often forced into a reactive position towards traders after harvest. They are likely to be at the mercy of middlemen, with little or no price information and no negotiating power. In addition the small volumes they offer are typically uninteresting to large buyers. Organizations can serve to pool production to achieve larger volume. Higher prices and profits then can allow for infrastructure investments that can add value and reduce risk, and the hiring of sales and marketing staff that can represent the group. Infrastructure investments may include facilities used for consolidation and storing, as well as packing or processing, in volumes sufficient to attract the best buyers. Another advantage to pooling the product is a smoothing of price fluctuations, which are common to many agricultural sectors.

Though many agricultural products are difficult to differentiate, significant volume accompanied by quality control allows associations and cooperatives to brand their product. Some processing and marketing cooperatives in the United States—Land O’Lakes, Ocean Spray, and Sunkist—were formed to market farmer-members’ production. Along the same lines, several USAID projects have promoted the establishments of “Seals of Quality” which help reinforce buyer confidence.⁴²

- **Input supply.** Individual farmers cannot purchase large volumes of inputs. However, organizations can plan for and purchase their members’ needs (in bulk) for entire seasons. Large advance orders can reduce costs by as much as 20 percent. Some organizations are formed for the sole purpose of purchasing large quantities of inputs, while other combine input purchase and distribution with extension services, marketing, and the dissemination of information (see Box 6).

In some sectors, knowledge about how to use supplies is almost as important as the inputs themselves. For example, smallholders may not be familiar with certain varieties of seedlings, pesticides, or drip irrigation systems. Input suppliers can be valuable allies in a development program, and sometimes may even improve MSEs’ negotiating position with buyers. Overall, the price, quality, and timeliness of inputs can influence the ability of MSEs to upgrade and compete.

Extension and business services. Depending on member needs, producer associations and cooperatives may provide a variety of services necessary for upgrading, such as:

- Technical assistance through field specialists who work with members on cultural, harvest, and post-harvest practices;
- Business skills training; such as record keeping to determine profit and loss;
- Provision of market information to enable farmers to make informed decisions, and improve negotiating power with buyers;
- Financial services through savings and loan organizations or credit unions;
- Marketing campaigns to differentiate products (thereby adding value), and increase demand, and
- Research and development to find new varieties, increase production, and/or reduce production costs.

Advocacy. Farmers and related MSEs share similar problems. With a single voice, they cannot affect change. As a group, they can. While identifying problems is relatively easy, prioritizing them typically is

Box 7: Input Services

- The Amul dairy cooperatives in India purchases veterinary services and products on a mass scale for distribution to their smallholder members.
- In Mali, the Office du Niger purchases inputs for cotton farmers across the Niger valley.
- Centro de Desarrollo de Agronegocios, a USAID project implemented by Fintrac in Honduras, targets input suppliers as a key source of information dissemination; for example inviting storeowners who carry pesticide to view demonstrations of effective fumigation techniques.
- In Colombia, the Federación de Cafeteros buys large quantities of fertilizers and pesticides, and warehouses and distributes them on a national scale and at a cost lower than other channels. The Federación also handles output—offering extension services and handling the grading, marketing, and selling of coffee beans. By combining input purchase with value-added services, this organization has been able to significantly increase the benefits accruing to smallholders.

⁴² The “Seal of Quality” has been used by Land O’Lakes in their Macedonia Agricultural Marketing Activity program. Land O’ Lakes, Inc. “Macedonia Seal of Quality Program: A Case Study.” Land O’ Lakes, Inc. <http://www.sealofquality.org.mk/> Joe Carvalho, Expert Opinion Interview; September 8, 2004.

not, because it requires agreement on how to target the association's limited resources. The process of prioritization forces members to understand that while there are benefits to speaking with one collective voice, there are also trade-offs.

One of the important lessons learned regarding donor assistance and support to nascent organizations is that top-down motivation is not sustainable. Members must have financial ownership and accountability. To ensure this, members can pay dues, or they can self-assess based on volume of production. Accumulated funds can be spent for staff salaries, marketing activities, research and development, or accrued for capital expenditures such as packinghouses or processing facilities. Donor dependency can be avoided through rigorous and transparent cost-sharing arrangements, and by avoiding the provision of free services.

The services mentioned above may also be provided by independent actors, on a fee-for-service basis, by input providers, or may be offered by buyers as part of a production contract. Ideally, MSEs can freely choose to purchase or use one or the other service from a variety of providers at varying prices. In some rural markets, however, it is unrealistic to expect such choice. It is, at a minimum, important that services that will be needed on an ongoing basis be delivered on a commercial, and therefore sustainable, basis, and that farmers and agribusiness MSEs have the information they need to be discriminating consumers of such services.

3.3.1 HOW INTERVENTIONS CAN FOCUS ON HORIZONTAL LINKAGES

Horizontal linkages may emerge as a result of MSE collaboration, or they may be fostered by an outside party. There are many legal and organizational options available to institutionalize inter-firm cooperation and an even greater variety of informal mechanisms that have been used (cooperatives, associations, consortiums, producer groups or other collaborative structures). Perhaps more important than the mechanism *per se* are the principles that collaboration must serve the membership base, and be commercially grounded. Grouping arrangements tend to hold together only as long as there are clear incentives that reinforce mutually beneficial behavior. Projects often make strengthening horizontal linkages a key part of their approach – examples are discussed below.

- Projects may partner with horizontal organizations such as informal producer groups, producer or processor associations, cooperatives, and collection points. For example, in Kenya the Business Development Services (BDS) project implemented by Deloitte and Touche and the Horticultural Crop Development (HDC) project implemented by Fintrac :
 - raise *productivity* through market intervention by promoting the production of higher grade, better quality fruit by facilitating access to improved stock and seedlings, productive inputs, training, extension and information services;
 - increase *market outlets* in selected areas by facilitating direct links between smallholder producers and lead firms involved in fruit export and processing;
 - facilitate *inter-firm cooperation* and organization within the overall value chain, between producers, input suppliers, producers and buyers, by organizing and building the capacity of tree fruit producer groups, linking smallholder MSEs to lead firms that provide embedded services, and facilitating other business arrangements and relationships, and
 - promote the development of commercially viable *business solutions/services* for rural MSEs.
- Projects can mediate disputes and enhance transparency. In some cases, brokers can play a very important role for consolidating and distributing products for smaller farmers and even their

associations. Projects can work with brokers, buyers and retailers to shape their standards and/or payment terms so that MSEs are able to comply and benefit.

- Projects can offer policy, management, or technical expertise to organizations. For example, projects can provide funding to hire a professional manager from the private sector for the first year or two to introduce business-oriented policies and procedures to an association or cooperative. Technical assistance can be provided to association staff members, who in turn train the members (this “train-the-trainers” method can be very cost effective for the development agency).
- Disseminate information about services and work with organizations to develop a plan for financial self-sufficiency, including calculating service costs and fees.

It is important to note here that, while some form of consolidation is necessary (to purchase inputs and pool production to build meaningful volumes), producer groups do not necessarily have to be formalized. Indeed, they may last for just a season. Each case will be unique, but the key is that the grouping arrangements must benefit both the producers and the buyers. For projects, working with associations or other institutionalized groups is often a cost-effective way to transfer resources and technology to a large number of producers.

3.4 UPGRADING

Upgrading refers to innovation or improvements among a firm or group of firms that increases value added and/or competitiveness. There are five categories: *process* upgrading, based on increased efficiency; *product* upgrading, i.e., making quality improvements; *functional* upgrading, or “moving up the value chain”; *intra-industry* upgrading (moving to a new market channel in the same value chain), and *inter-industry* upgrading (moving to a new value chain to offer a completely different product). MSEs may lack incentives to upgrade; they may lack access to skills, information or finance that would permit them to upgrade; or they may simply be unable to implement an effective upgrading strategy on their own, without the collaboration of other firms.

Upgrading can happen at the firm or chain level. Agriculture projects are often designed with the entire chain in mind, but may focus on one or more critical weak links. Projects may work directly with smallholders to increase productivity or with private enterprises to upgrade the processing function. Alternatively, they may aim to work through lead firms such as buyers or input suppliers, to encourage the provision of high quality embedded services or equitable contract farming agreements.

MSEs may often represent the weakest link in the value chain. Upgrading strategies put in place by commercial actors are likely to attempt to “filter out” these players, keeping them in the picture only as long as or where they are necessary.⁴³ Development projects that focus on MSE participation can solve MSE-related problems that undermine the competitiveness of the entire chain; reduce the risks for lead firms of partnering with MSEs; improve communication between players, and ultimately provide a demonstration of why more inclusive approaches to supply-chain development are beneficial to lead firms.

Table 3 shows examples of upgrading strategies specific to agriculture and agribusiness. In all of these cases, returns to smallholders and/or to MSE agribusinesses are expected to increase. Lead firms (buyers) are also expected to benefit from process and product upgrading; in other types of upgrading lead firms may be displaced or find themselves in a less favorable bargaining position than before. There is a natural

⁴³ Swinnen (2005).

sequence to upgrading, where process and product upgrading often must precede any attempt to move channels, industries, or forward integrate.

TABLE 3: UPGRADING STRATEGIES FOR AGRICULTURE AND AGRIBUSINESS

Type of Upgrading	Applications to Agriculture and Agribusiness
Process upgrading	<ul style="list-style-type: none"> • Improving the productivity of agricultural land, labor or capital. Examples include providing technical assistance (cultural and postharvest handling practices) and/or improved inputs (improved varieties, fertilizers, etc.) • Reducing costs through improved inputs or technology. Examples include higher producing seed varieties, more effective cultural practices, smarter harvesting timing, better sorting, grading and packaging of harvested products, etc.
Product upgrading	Quality improvements, i.e., complying with grades, standards, varieties, harvest and post-harvest practices. This requires knowledge of what the end consumer wants. Improvements can include planting desired varieties, better harvest and postharvest handling, packaging improvements, more efficient transport, etc.
Functional upgrading	Often, this implies moving into value-added activities beyond the farmgate (forward integration). Examples include better sorting and grading practices, field packing, simple processing (such as drying), or packing into consumer-ready packs (such as dried beans in small bags).
Intra-industry upgrading	Moving to a new market channel, i.e., selling to large retailers or export brokers rather than local markets. This requires knowledge of exact product specifications. MSEs must have some access to this information as well as the ability to comply.
Inter-industry upgrading	Moving to a new value chain to offer a different product. This would include diversifying crops or substituting high-value crops for traditional production.

There are many constraints to MSE upgrading in the agricultural context. Chief among these is access to information. Typically, small farmers are willing and able to comply – if they understand clearly what is required of them. Small farmers with continuous access to market information may be able to form long-term relationships with input suppliers, supply supermarkets directly (or through their associations), and/or work as partners with exporters to supply regional or international markets. While one-time leaps may occur, for example from one channel to another, upgrading is best viewed as a continuous process. Upgrading can be stimulated by lead firms, development projects, or the impetus may come from within firms or groups of firms. Successful upgrading will require ongoing access to supporting services, discussed below.

3.4.1 HOW INTERVENTIONS CAN FOCUS ON UPGRADING

Projects can support MSE upgrading in many ways, discussed below. The most effective approaches to product upgrading usually include some type of industry-specific demonstration which allows MSEs to judge for themselves the cost (especially the risks) and benefits of changing their production practices (see Box 8).

- **Provide analysis to help identify viable upgrading strategies.** This usually begins with an in-depth analysis of the entire value chain. Once the weak or missing links are identified, project interventions can be targeted to solve those problems. It could be that the farmers are planting the wrong varieties, or harvesting when the color is wrong; perhaps better postharvest handling and improved packaging can

add significant value at the MSE farmgate. While outside analysis may provide useful one-time insights for MSE farmers or processors, ongoing information will need to come from the next link in the chain – whether the middleman who collects the product with his pick-up truck at the end of the road, or the buyer for an international retail supermarket.

- **Build local technical and managerial capacity.** Training can be provided directly to lead farmers or managers of member-based associations.
- **Partner with lead firms interested in chain-level upgrading that is inclusive of MSEs.** Projects can provide down-line value chain support to exporters, for example, by sending people to international trade shows (to see first-hand what consumers demand and what the competing countries are capable of) and/or sponsoring inward buying missions. This support should not substitute for the exporter passing along information and technical assistance to MSE suppliers.

Invest in MSE-led upgrading initiatives. An example here would be a project providing finance or grant for a packing facility situated closer to MSE farmers. Simply by packing closer to the farmgate, more value will accrue to the producers.

Box 8. Incentives for Product Upgrading

In USAID's Competitiveness Initiative project in Mongolia, cashmere processors were having trouble sourcing high-quality cashmere to increase their processing capacities. The project initiated a series of cashmere market days that resulted in face-to-face contact between herders and processors. The market days enabled the cashmere processors to access more raw cashmere and allowed herders to witness the premium that processors would pay for high-quality cashmere. This then gave herders, for the first time, a market-based incentive to make changes in their herding practices in order to improve raw cashmere quality. The changes included culling of older goats and purchase of improved breeding stock.

3.5 SUPPORTING MARKETS

Supporting markets for products and services like finance, business services, inputs, and information and communication technologies develop around dynamic value chains. The demand for these goods and services are derived from the growth of the core value chain, meaning that demand may be low to non-existent in value chains that are just forming, but can grow quickly as volumes begin to push through the chain.⁴⁴ Because these products and services are often key ingredients to enterprise growth and competitiveness⁴⁵, development projects have a long tradition of working to ensure their availability.

Experience has shown that when governments or projects try to offer supporting services directly, both the quality and sustainability of services may be compromised.⁴⁶ Successful interventions have instead focused on the development of deep and diverse supporting markets, minimizing the amount of subsidy for service provision. Alternatives to direct provision include: “facilitating” service provision through a

⁴⁴ Interview with Michael Field, March 9, 2004.

⁴⁵ For example: there may be opportunities for MSEs to transform their inherent comparative advantages, such as access to land or natural resources, into unique products that are competitive in world markets—which can only be realized if access to finance is available or certain production techniques are used.

⁴⁶ Between 1998-2000, the Donor Committee for Small Enterprise Development sponsored a number of conferences and papers aimed at elaborating a set of principles key to the success of enterprise development projects. The resulting guidelines recommended that donors adopt a more hands-off approach, while projects would aim to develop *markets* for a broad set of business development services. See Gibson (2000) for more details.

third-party organization which provides training or product development support to a variety of suppliers; stimulating demand by offering vouchers to eligible MSEs, which cover a portion of service fees during a limited time; improving the availability of information about services, and building alliances with lead firms willing to “embed” services into their contracts with MSEs. Any of these approaches may make sense in a given context; what is important is that MSEs have sustained access to supporting services—beyond the life of a donor project—so that they can continue to upgrade in response to market demand.

In agriculture, business services are frequently provided as part of the buyer-supplier relationship (through vertical linkages) or by producer associations or cooperatives to their members (through horizontal linkages). For this reason, most of the industry-specific supporting services were covered above in the sections on vertical and horizontal linkages. The discussion below makes brief reference to the different types and modalities of business services most relevant to agriculture and then goes on to cover two that were not discussed earlier: finance and information and communications technology (ICT).

3.5.1. Sector-specific and cross cutting business services

Types of business services used will vary depending on the firm’s placement in the value chain. For example, business services for farmers are likely to be industry specific. Most common is production-related technical assistance, often provided by private member organizations such as associations or cooperatives. In some cases, usually in more developed and dynamic markets, farmers may have the option to source technical assistance from input suppliers, buyers, or free-standing service providers.

Agribusiness MSEs, on the other hand, may be users of more generic services, such as those that can help prepare them for certification (see Box 9). Last, it has been emphasized –here and in the section on horizontal linkages - that producer groups often act as an important channel to get services to farmers or other MSEs. These groups themselves may require business services; especially marketing assistance and business skills training.

Box 9. Quality Standards for Small Agribusiness Firms

Swisscontact -Ecuador recently concluded a pilot project that supported the implementation of generic quality improvement processes, pre-ISO certifications, and pre-HACCP certifications to firms in a wide variety of sectors. Participants from agribusiness value chains included an artisanal cheese maker and a producer of banana chips. Productivity and quality indicators were customized for each firm; however, the training and consulting services offered through the program drew from the same framework and contained a number of common elements.

3.5.2 FINANCE

Agriculture is the original seasonal business; farmers often have substantial cash only when harvest is sold. If external finance is not available, the producer is limited to cash in hand to acquire assets or finance inputs. Add to seasonality the uncertainties of weather and price volatility: poor weather limits production, while good weather can produce bumper crops but may depress prices. Lending for agriculture is risky, and commercial bankers and other lenders have typically steered away from lending in the agricultural sector.

Formal lenders tend to focus on collateral for loans, either because of an intrinsic belief that adequate acceptable collateral (usually land) will ultimately make the loan good, or because of regulatory pressure that all loans be collateralized. In many places land is not owned outright, or the title records are unclear, so land cannot be pledged. Many lenders also have negative perceptions vis-à-vis agriculture, due to past failed efforts at channeling credit through state agricultural banks. Lessons learned have led to improved practices and support to financial institutions such as commercial banks, microfinance institutions and credit unions can yield excellent results; however, this approach requires a medium-to long-term perspective.

Value chain financing (buyer or supplier credit), on the other hand, is predicated on controlling the source of loan repayment, and is based on cash flow. The majority of short-term finance provided to farmers and small processors in developing countries today is in the form of in-kind loans from input suppliers or advances from middlemen, repaid through the sale of crops. These systems of interlinked transactions tend to develop around markets for agricultural goods, allowing the private sector to function when financial institutions do not.

Value chain finance costs are usually embedded in the transaction, i.e., the cost of credit is not explicit. Often credit is offered as an incentive for the farmer to sell output to the supplier or middleman. Technical advice and services may accompany the provision of inputs; for example, it is typical for a processor or middleman to provide an advance in the form of seed and fertilizer. Use of the “package” is likely to improve the buyer-seller relationship. Suppliers usually operate close to the farm site; in addition to the convenience factor the lender’s continued presence encourages repayment. Transaction costs are relatively low for both when an ongoing relationship is established.

Limitations to value chain financing include the short-term nature of most credit and the concentration of power in the buyer/lender figure, which in addition to limiting benefits to producers, may make it difficult for producers to diversify or switch crops. Transactions are not transparent, and embedded costs may reach usurious levels. The biggest limitation, however, is that the amount of credit available is limited to the pre-existing liquidity within the value chain, making expansion difficult. Donor interventions can try to build on or expand available value chain finance, whether by making additional amounts of financing available, enhancing or making possible a particular mechanism (such as warehouse receipts, discussed below), or simply by facilitating linkages or credit flows between actors that did not previously work together.

The most effective approaches to developing agricultural finance today are viewing the problem - and identifying solutions - through both the financial sector lens and the value chain lens. Projects may opt to strengthen financial institutions by helping them to better assess agricultural risk – for example, via technical training for loan officers on specific topics such as livestock disease. Alternatively, projects may seek to increase amounts or enhance the terms of existing value chain finance flows. In this way, a project concerned with next year’s growing season can identify ways to increase existing credit flows without displacing current value chain actors. Projects can also work to make a range of financial products available so that the long-term growth of the agricultural value chain will not be hampered due to a lack of financing options.

In some cases, projects may make linkages between the two sets of players. For example, banks may be willing to lend to support value chain financing (see Box 7). While the borrower usually remains only one of the participants in the value chain,⁴⁷ the loan transaction is more creditworthy because the bank can identify a reputable sales outlet and payer for the consolidated agricultural products, and establish that the prospect of continued business gives the participants incentives to perform. Thus, the value chain as a cohesive entity can mitigate barriers that a bank may have in lending to individual participants.

⁴⁷ Banks will rarely consider group loans or guarantees.

By using the financial institution and value chain lenses together, donor interventions can draw on the strengths and overcome the limitations of each approach on its own. The result has been the development of a number of new financial products, in which banks may be involved, but are not the only protagonists. One mechanism that has recently become more widely available is financing obtained through warehouse receipts. Farmers can expect to make a higher profit if the crop can be held off the market at harvest time and released when supplies are scarcer, hence prices higher. However, farmers usually need cash at harvest. Warehouse receipts allow the farmer to obtain a loan secured by the crop—enough to delay crop sales. The farmer will sell later at a higher price, hoping to pay back the loan plus interest and have some leftover profits as well. The lender has less risk than the farmer because the loan will generally be for less than 100 percent of value. Bonded warehouses provide a solution where quality assurances, and insurance, are in place such that the storage risk is minimized. These conditions give rise to warehouse receipts for standard crops, so the holder need not receive the exact crop that was placed in the warehouse. Warehouse receipts are more liquid than the crop itself, as the bank can take the receipts as collateral, rather than the crop inventory, and the receipts can be easily bought, sold and transferred.

Box 10: Bank Financing Based on Lead Firm Referral and Payment

Lura, the largest dairy in Croatia, is using multi-year contracts with its farmer-producers to increase the quantity, quality and traceability of milk, to meet EU standards in anticipation of Croatia's accession to the EU. As part of this upgrading process, a number of farmers are investing in updated milking and other machinery. With support from the Croatia Agribusiness Competitiveness Enhancement Project (ACE), Lura is encouraging banks to make term loans to the farmer-producers secured by fixed assets and real property owned by the farmers, and will make payments from sales per long-term contracts directly to the banks. While Lura is not guaranteeing, nor is otherwise liable on these loans, the banks weigh the referral from Lura (which amounts to a qualifying of the client) and the long-term contract between Lura and the farmer-producer in their decision.

Along the same lines, an increasingly popular source of fixed asset finance is leasing. A lease is substantially self-collateralizing, and typically higher loan-to-value ratios are allowed than with bank financing. While vehicle leasing is the most widespread, all types of equipment, as well as real estate improvements such as cold storage facilities, can be leased. Title to the leased asset remains with the lessor, thus mitigating problems concerning public recording of liens.

Box 11: ASME Leasing

The Armenia Small and Medium Enterprise (ASME) project provided technical assistance for the creation and start-up of the first (and only) privately financed leasing company in Armenia. ACBA Leasing was financed with by \$4 million (\$1 million in equity and \$3 million in loans) from the International Finance Corporation, Agricultural Cooperative Bank of Armenia, Credit Agricole of France, and the Lebanon Leasing Company. The enterprise also received a 1.2 million grant from USAID through ASME. Leasing activity was initiated in late 2003 and volume is growing rapidly. By March 2005, 105 leases with a total of over \$2.6 million had been executed to supply equipment from 12 different countries to Armenian small and medium-sized enterprises. Leased equipment includes agriculture machinery and agroprocessing equipment, as well as nonagricultural items. The increased demand for equipment has in turn stimulated local investment, for example in a new tractor assembly and implement manufacturing company.

3.5.2 INFORMATION AND COMMUNICATIONS TECHNOLOGY

ICTs offer a growing number of ways to address constraints faced by agribusinesses in developing countries as well opportunities to exploit. ICT can help reduce transaction costs, increase access to markets, provide better and more frequent access to critical market information, and improve communication throughout the value chain.

Today, the term ICT is often used as synonymous with the Internet, but it encompasses a much broader set of technologies. Certainly use of the Internet is included as well as presence on the Internet via a website, but so is the use of radio, cell phones (including text messaging applications), hand-held computers (personal digital assistants or PDAs), stand-alone computers, print media, the use of RFID (radio frequency identification) tags, digital cameras, and combinations of these technologies.

ICT can be used to provide needed information to players in the value chain as well as enable more frequent, regular and specific communication and business applications among these players, including small farmers, traders, input suppliers, transporters, exporters, importers, and food processors. In fact, more and more frequently, global or regional value chain players depend on technological approaches for all communications with their customers and suppliers. The table at the end of this section provides several examples of ways ICT is being used in developing countries to address constraints or opportunities in value chains.

Accessibility to and costs of ICT dictate what options are practical for agribusinesses. In developing countries, access to the Internet, phone lines, stand-alone computers and even radios may be too costly in many rural areas. Fortunately, several factors are helping to lower the costs of information technology: investments in infrastructure (sometimes helped by the use of a government’s universal access funds) are steadily improving and new technology, such as wireless telecommunications options, can dramatically increase how that infrastructure can be leveraged across users. Further, technological adaptations help lower costs—e.g., shared Internet access points; applications that provide information to intermediaries (e.g., cooperatives, NGOs) that can then provide it to small farmers; applications that combine cell phones, PDAs or radio with Internet access. Many rural Internet access points use solar power and very small satellite dishes. Finally, proven business approaches have emerged for providing access to telecommunications in many locations on a sustainable basis.

It is important to avoid “technology push” when using ICT—that is, focusing more on an appealing technology rather than the constraint to be overcome. Radios, email and cell phones (text message applications or simply verbal communication) will often be sufficient and right on target. Internet access alone may be sufficient and websites unnecessary. Given the growing sophistication of the web and the importance of search engines, if a website seems to be the correct solution to a problem, great care must be taken in its design, how it will be found by the target audience, and how it will be kept up to date. Far too many agribusiness websites have been created without these considerations.

Those involved in improving an agribusiness value chain need to be aware of innovative ways to use ICT. Examples are helpful in making the connection between a constraint and innovative uses of ICT (see Table 4).

TABLE 4: USING ICT TO OVERCOME KEY VALUE CHAIN CONSTRAINTS

Problem/Constraint	Examples
<i>Information:</i>	
Domestic and international product prices, availability	Web, print: Egyptian Horticulture Export Improvement Association offers EU importer and retail contacts for fresh fruits and vegetables via web www.heia.org (USAID APRP)
Market research regarding competitors and key players in the value chain	Text via cell phone: Daily prices in domestic regional market(s): Senegalese farmers (Manobi) www.manobi.net
Import and export requirements, standards, tariffs, customs procedures	Community Radio: Mali Agriculture Market Watch provides market prices, farm extension information (USAID) http://www.aec.msu.edu/agecon/fs2/fact/malimarketfact.pdf
Agriculture extension information, including information on inputs	Web, phone, chalkboards or other appropriate media: Domestic regional market prices for Peruvian farmers www.michacra.net

Problem/Constraint	Examples
Information on availability of and requirements for credit	<p>Web, radio: daily market prices for crops in 3 Bolivian markets (USAID) http://www.fdfa-valles.org/</p> <p>Web: http://www.agribusinessonline.com international market prices; information on standards, import requirements, more. From Fintrac.</p> <p>Web access, email: research on competition, target markets, customer satisfaction, customer preferences, market trends</p>
<p><i>Communications and Applications</i></p> <p>Full range of customer service regarding orders, availability, shipments, more ordering (and sometimes consolidating) inputs</p> <p>Communicating with prospective customers</p> <p>Making offers, demands for products, negotiating and closing deals</p> <p>Managing transportation (ordering, monitoring, changing)</p> <p>Exchanges relating to specific agriculture problems</p> <p>Financial management including obtaining credit, making and receiving payments</p>	<p>Web access and application: eChoupal, an e-commerce platform of a private Indian firm, reaching over 1 million farmers. Allows farmers to opt to sell products at better prices; information on production techniques; aggregates village demand to buy inputs at volume discount prices. See example for coffee: www.plantersnet.com</p> <p>Web application, digital cameras: Peruvian farmers and lenders use intermediary's ICT application to reduce risk, obtain financing, address agronomic problems fast. http://www.meda.org/about/QR_pml2.html (Do search on page for agromonitor)</p> <p>Email: simple email—with professional and timely responses—between customers, suppliers.</p> <p>Web, Satellite Radio</p> <p>IT and technology application: 600 Dairy collectives in India use applications to weigh milk delivered, to speed payments, shorten queues, reduce spoilage, and reduce corruption. Private investor and private Indian technology firm.</p>

3.6 PUTTING IT ALL TOGETHER: COMPETITIVE STRATEGIES FOR MSEs IN AGRICULTURE AND AGRIBUSINESS

The original concept of competitive strategy, as applied by management consultants for large developed country firms, is based on a set of factors not unrelated to the critical elements discussed in this section (the enabling environment; horizontal and vertical linkages; upgrading, and supporting markets).⁴⁸ In the traditional private sector scenario, one (large) firm will evaluate its competitive position in the industry and international context in which it operates, and formulate a strategy that is likely to be successful. Strategists emphasize that operational efficiency or productivity on the part of the firm is *necessary but not sufficient* to strategy; other important elements of strategy include market positioning and uniqueness. Two key points are relevant to the MSE development approach discussed in this paper: 1) the development of a successful competitive strategy requires an understanding of the structure and dynamics of industry(ies) in question, and 2) individual firm performance is linked to performance of other firms in the same industry.⁴⁹ The 'value chain lens' has emerged as a conceptual framework which incorporates the importance of understanding complex dynamic relationships in markets and among firms, and the power of inter-firm coordination and cooperation in developing a competitive strategy.

⁴⁸ For example, Porter's five forces: the threat of new entrants; the threat of substitutes; the bargaining power of buyers; the bargaining power of suppliers, and the degree of rivalry among existing competitors; diamond for industry attractiveness, etc.

⁴⁹ Porter, Michael, (1998). On Competition, 1998 Harvard Business Review, Cambridge, MA.

In agricultural development, practitioners have been working for decades to develop strategies for *groups* of smallholders, often through member organizations such as cooperatives and associations. Other projects offer assistance to individual agribusiness MSEs, usually processors. Some of these strategies in the past may have relied too heavily on improving productivity, without considering what is required to bring value added closer to the farmgate—i.e., successful market positioning or ways to achieve uniqueness. Projects may have attempted unsuccessfully to circumvent or remove established players (typically the middleman) from the market—essentially subsidizing MSEs while pitting them against larger competitors. More recently, some development projects are working to partner with large players in agribusiness value chains, such as processors, buyers, and input suppliers, as key providers of embedded services to smaller firms. This approach works to “pull” products through the chain based on pre-existing consumer demand.

One such project is Kenya BDS, a five-year project funded by USAID and implemented by Emerging Markets. Kenya BDS began operations in 2002 and has selected three subsectors including tree fruit. The project has been successful in catalyzing rapid growth in the avocado value chain, by partnering with a local exporter to provide embedded services – such as pest control and the provision of high-quality inputs - to help producers upgrade their avocados. Over time, local stand-alone service providers have emerged, and the exporter has been able to focus on sourcing and marketing the product. In this case, vertical backward linkages, from the exporter to the avocado producers, were key in stimulating the development of the avocado value chain. In this case, the project encouraged the exporter to provide embedded services that might otherwise have been seen as an unnecessary investment, and was able to ensure that small producers were included. In other chains, such as mangoes, Kenya BDS is working to strengthen horizontal linkages among producers in order to pool production and reduce transport costs. [

The most powerful strategies for MSEs will focus not only on MSE productivity (ensuring a high quality product via production-based technical assistance) but on market positioning and uniqueness. Donor interventions need to consider the role of both large and small players in the same value chain; the most effective approaches are likely to deliver benefits to *both* lead firms and MSEs⁵⁰. Support to MSEs that does not benefit other players in the chain is unlikely to result in changes that last beyond the life of the project, for a number of reasons. First, large firms will resist benefits accruing to small firms if those benefits are perceived to be at the large firms’ expense. Second, productivity or other improvements must be recognized by the market in order to translate into price increases or willingness to purchase MSE output. Most importantly, *if the entire value chain or sector does not remain competitive*, MSE owners, as well as workers in large firms, may lose their livelihoods.

There are different ways in which development projects can enhance MSE and value chain competitiveness. Strategies that call on lead firms to serve as facilitators for MSE development are likely to be based on product and process upgrading, and will need to focus on improving the competitiveness of MSEs *as contributors to the competitiveness of the chain*. Strategies that focus on the competitiveness of groups of MSEs may also aim for functional, intra- or inter-industry upgrading - these interventions may be more complex. Projects will typically develop market linkages and provide direct learning inputs to support a transition from one function, channel, or industry to another. In agriculture, this may mean the introduction of new crops via demonstration plots and the provision of agricultural extension services. FINTRAC has used demonstration plots in their projects in Honduras (see Box 6 above) and Kenya (where they are working with passion fruit, among other tree fruit products), and often provides agricultural extension services to farmers working with new crops.

⁵⁰ While this paper has stressed a value chain approach to agriculture and agribusiness development that is inclusive of MSEs, it may be equally important to avoid being trapped in a restricting, sometimes myopic “size lens.” Interview with Jim Winkler. DAI; see list of experts interviewed for Goldmark and Barber (2005).

However, there are a number of measures needed to ensure sustainability. Projects should be careful not to crowd out the development of private service providers. Solutions to MSE business challenges should be commercially viable, if they are to be available once the program has ended. The best solutions, or services, are those offered in such a way that their costs can be recuperated, either through fees or via the sale of products. Lead firms offering embedded services may recuperate their costs through the sale price of inputs or crops; stand alone service provision is more common in mature markets. Horizontal linkages between MSEs may take time until they work smoothly – in such a case the project may serve as moral guarantor or mediator of disputes. In the case of vertical linkages, projects may need to stimulate competition among lead firms, in order to reduce power asymmetries and work to establish dialogues and information flows that empower MSEs.

There are proven commercial strategies, which can be harnessed to benefit MSEs in agribusiness chains, such as branding, penetrating niche markets, and socially responsible marketing strategies. A good example of such a business strategy undertaken with developmental benefits is a brand which is associated with the product's geographic origin rather than with a particular firm. In Egypt, a USAID project devised a national branding strategy for cotton, based on unique quality attributes. The resulting visibility increased sales, delivering benefits to multiple levels of the Egyptian cotton chain. Haitian Bleu is another example of a successful geographic branding exercise (see Box 12 below). By differentiating the otherwise commodity product (coffee) with stringent quality controls from production through harvesting and processing practices, the Haitians were able to attract the attention of niche buyers. Through these relationships, long-term sales contracts were established, which greatly benefit all involved – including the MSE producers who represent the initial link in the value chain. The Haitian Bleu example also illustrates how vertical and horizontal linkages, in the form of producer cooperatives organized into a federation, can allow small producers to compete successfully in high-value markets. Quality improvement and product differentiation takes place all along the chain, starting with the producers and following through the processing/packing functions of the Federation.

Perhaps as important as choosing the right competitive strategy is understanding the dynamic value chain characteristics that affect whether project results can be sustained. There are three value chain factors that are useful to consider: power relationships between firms; the dynamics of learning and innovation, and the nature of benefits⁵¹. Power in commercial relationships, for example, primarily comes from owning the key determinant or determinants that drive sales, such as a brand name, control over a retail or wholesale channel, or exclusive rights to a production process or technology. Powerful firms have every incentive to maintain market dominance, and project implementers will want to understand this when deciding whether to partner with lead firms or work to develop alternative market channels.

Learning and innovation at first glance would appear fluid; they are, however, closely tied to incentives that encourage or discourage the delivery and absorption of new knowledge. In local markets, producers often have incentives to limit risk-taking. In more sophisticated value chains there are typically some mechanisms and incentives in place to push innovation and learning, but these are likely to be related to a narrow set of skills such as production or processing. There are also counter incentives to discourage suppliers from seeking their own direct marketing channels. The theoretical link between learning and innovation and increased competitiveness is clear; however in practice it is often necessary to “unblock” this mechanism through positive examples, an appropriate role for a project. For this reason, agriculture projects often create networks or linkages that allow MSEs ongoing access to information—about market pricing but also related to technical practices (varieties, cultural and harvest/post harvest handling, processing guidelines, etc.).

⁵¹ This discussion adapted from a handout prepared by Michael Field, USAID, March 2005.

Closely related to the concepts of power relationships and learning is the idea of benefits. In addition to increased income, benefits can mean reduced market risk (more stable income) and increased value of assets. The dynamics that drive where and how benefits accrue are tied to how power is wielded and whether innovation and learning are actively encouraged. In addition, the distribution of benefits depends on the strength of a value chain's infrastructure, including the quality of the enabling environment, the number and nature of vertical linkages, the effectiveness of cooperation to address joint constraints, and the depth and robustness of supporting markets. Problems or weaknesses in these areas are likely to skew the flow of benefits. Projects will want to consider which of these factors is most important (and most feasible) to address, with the goal of restoring equilibrium as well as improving the competitiveness of a value chain.

Successful projects develop competitive strategies—by choosing combinations of interventions from the menu above in such a way that addresses the critical value chain constraints and opportunities. The “critical” constraints and opportunities may mean more than simply the most important ones—as all program implementers can attest, there are advantages to sequencing interventions so that activities that show results quickly are carried out first, creating a positive dynamic and demonstration effect around the program. The best project activities will achieve two things at the same time: succeed in the marketplace in the near-term, and provide a sustainable stream of increased benefits for MSEs over the long-term.

Box 12: Haitian Bleu

Amidst the political turmoil and poverty of Haiti, more than 25,000 small coffee growers are successfully using the cooperative model to consolidate their harvests and promote their export brand, Haitian Bleu, at four times commodity coffee value. These producers, among the poorest in the hemisphere, have gained the ability to deal directly with specialty roasters in the United States, Europe, and Japan. Despite a worldwide coffee crisis, they have insulated themselves from commodity prices and ensured healthy profits.

The structure behind this success consists of 37 cooperatives that own the Federation des Associations Cafeiere Natives (FACN). Cooperative members elect leaders and managers of the cooperatives and board members to govern the federation. Each cooperative buys coffee from its members, processes it, and sends it to the federation. The federation conducts another processing step and exports, and is responsible for ensuring quality standards of Haitian Bleu and managing marketing activities. The advantage of this institutional structure is that membership in FACN gives each MSE access to resources and services that would otherwise require substantial skills and investment. Most of these producers, largely illiterate and poorly educated, manage small but diversified hillside farms producing many crops in addition to coffee. With an average farm size of less than a hectare, and many farms constituting little more than gardens, production levels of these low-yield varieties are too low to justify resources to process the crop. Most farmers do little to affect plant yields; they simply harvest what the plants naturally produce. Prior to FACN, most producers lacked depulping technology, forcing them to dry the coffee cherries, producing “naturals,” a lower-priced product. Also, growers had to carry their crop long distances, placing themselves at the mercy of buyers’ usury pricing.

Under FACN, producers carry their fresh cherries to local depulping stations where they receive an initial cash payment by volume, satisfying cash flow issues. Each cooperative depulps, ferments, dries, and stores coffee for its members. By processing coffee as “washed” rather than “naturals,” the cooperative provides the MSE with a previously unpracticed service that adds value to the product and generates a significantly higher price to the farmer. Proper drying procedures, which are most efficient with large volumes, are standardized and centralized by the cooperatives to maintain the intrinsic character of members’ coffee. The federation, rather than intermediaries, provides transport, economized by cooperative volumes, to the member-owned FACN dry mill, a resource normally held only by large export houses. At the dry mill, MSEs receive state of the art coffee preparation, international quality evaluation expertise, and proprietary inventory software to produce a limited and unique export crop that satisfies specialty roaster criteria.

Reaching this uniformed and controlled quality level has enabled the members to benefit from a unique marketing structure, piloted with FACN. Under this model, MSEs sell their crop to select roasters under fixed-price long-term contracts that compensate quality at prices well above the commodity market. For example, Haitian Bleu has maintained a price of about \$2.00 per pound since 1996, while prices for washed mild coffee have fluctuated from just under \$2.00 to a more recent \$0.60 per pound. By providing guaranteed exclusivity and fixed harvest percentages to these few roasters, FACN gives the roasters the security that they need to invest in promoting Haitian Bleu, which in turn increases the demand. A full-time English-speaking Business Manager guides and manages the operations and marketing of FACN’s business. Under the cooperative structure, all of the processes are provided at cost, avoiding middlemen’s margins. A final payment is made to each cooperative after all coffee is exported and federation costs are deducted. This amount differs between cooperatives because it reflects the final selling price of each cooperative’s coffee, creating a reward for well-cultivated and processed beans.

Through the Hillside Agricultural Program, FACN has increased its processing capacity, improved cooperative incentive structures, opened up access to cooperative credit, and tightened its quality control procedures. The first profitable harvest was in 2001, and as of 2005 operations are expected to be completely self-sustaining.

IV. EXPERIENCE AND LESSONS LEARNED

4.1 EVOLUTION OF APPROACHES TO AGRICULTURE, AGRIBUSINESS, AND MSE DEVELOPMENT

The collective experience of international donors in supporting agriculture in developing and transition countries spans half a century. Support to agriculture reached its peak in the late 1960s—early 1970s, with significant investments in building national capacity to conduct agricultural research. In the early years, development assistance to agriculture tended to concentrate on supply-side approaches—investments in infrastructure, publicly managed credit programs, and production assistance. Though important lessons were learned (i.e., the failure of subsidized credit channeled through state banks) the general approach was appropriate for countries in the early stages of development. Timmer refers to the first of four phases in agricultural transformation, for which the most important goal is to “get agriculture moving.”⁵²

During the Green Revolution, important advances were made in agricultural productivity via the development and dissemination of a set of high-yielding crop strains. While agriculture in some areas experienced long-term benefits, a number of regions could not benefit from the new strains because of the characteristics of their natural resource base (poor soils, low or inconsistent rainfall, etc.) The events following this breakthrough led to increased attention on the importance of a number of other factors, such as the proper functioning of input and output markets. By the 1980s, donors such as USAID began to focus on developing private enterprise to carry out the processing and marketing functions of the chain—agribusiness. More recently, donor projects have adopted a demand-pull approach to developing agriculture and agribusiness, supporting export diversification and compliance with private industry and international standards.

The scale and intensity of donor support to agriculture has decreased significantly since the 1970s and progress has been uneven across regions. Asian countries, especially India, appeared to benefit significantly from the Green Revolution and have today achieved self-sufficiency in food production at the national level. Latin America has also made significant progress, due in part to increases in agricultural exports and crop diversification. In transition countries, private vertical coordination initiatives on the part of large buyers have emerged to fill gaps in the supply of farm products caused by disruptions associated with privatization and restructuring. The situation on the African continent is more problematic. Critics claim that Africa was “left behind” when the Green Revolution failed to produce significant benefits for African farmers, and worry that the region will have difficulty catching up now that donors have reduced their support to the sector⁵³. Many of the national research institutions that were created with international assistance are deteriorating and unable to sustain the high quality of research that is need to produce continued breakthroughs. In addition, some parts of the continent face formidable ecological constraints, which raise questions as to whether significant improvements can be made in agricultural productivity.

Despite this widespread pessimism, there is evidence that agricultural growth is possible in Africa. A recent study on successes in African agriculture highlighted a number of instances in which significant progress has been achieved: commodity-specific research breakthroughs in maize and cassava breeding;

⁵² Timmer, in Eicher and Staatz (1998), *The Agricultural Transformation*, p. 117.

⁵³ A recent study, “Investing in Africa’s Future: U.S. Agricultural Development Assistance for Sub-Saharan Africa” concluded that despite recognized need and high level of interest from developing countries, funding levels for agriculture development assistance have been relatively flat since 2000.

adaptive banana breeding by farmers; improved control of pests and disease such as the rinderpest livestock disease; booming horticultural and flower exports in East and Southern Africa, and increased cotton production and exports in West Africa.⁵⁴ It is noteworthy that in two of the cases (horticultural and flower exports) the drivers of the process were private traders. In the case of fruits and vegetables, production contracts with smallholders were coupled with a series of upgrading activities to ensure adequate quantity and quality of supply.

Just as the agricultural development field has evolved, so has the field of enterprise development. (Table 5 below illustrates key moments in the history of two related fields, agriculture and small enterprise development). Beginning in the 1950s with India's post-colonial programs to develop indigenous small enterprise, small enterprise promotion has been enduringly popular with developing country governments and has often crossed paths with agriculture and agribusiness. In the 1970s, researchers began to notice the important role of small-scale, non-farm rural enterprises in generating income for rural families, especially during seasonal periods of low agricultural activity. These enterprises proved to be less risky to finance than farms, and with the spread of microcredit in the 1980s and 1990s many organizations focused on rural and peri-urban MSEs. The appropriate technology movement, *circa* 1975–1985, introduced a number of inventions—some useful, others not—designed to help rural and urban MSEs generate greater incomes.

Around the late 1990s, there was an interesting convergence in thinking between donors working in microenterprise development and those promoting the growth of small and medium-sized enterprises. Lessons from activities supported by a number of donors⁵⁵ were distilled into a set of widely accepted key principles: 1) the importance of clearly identifying the market failure or failures an intervention is trying to address; 2) a reduced role for governments, donors, and project implementers, who should act as market “facilitators” rather than players, in combination with an expanded role for private firms; 3) avoidance of highly subsidized or free services; and 4) increased local capacity with a carefully planned exit strategy by donors and implementers, so that impacts are sustainable.

And now, the new millennium brings with it the challenges of globalization and trade liberalization. With most markets opening up to global competition, firms, whether large or small, urban or rural, need to do more than just generate income—they need to be competitive. An emerging generation of projects focuses on competitiveness, originally via clusters (horizontal groupings of firms) and more recently through a value chain approach (encompassing both vertical and horizontal linkages). The next section briefly reviews USAID's experience in agriculture and MSE development, highlighting lessons from a few programs that have shown promising results in applying the principles of competitiveness to groups of agricultural MSEs in developing countries, by targeting the value chains in which they operate.

⁵⁴ Gabre-Mahin, Eleni, and Steven Haggblade, (2004) “Successes in African Agriculture: Results of an Expert Survey,” World Development Report.

⁵⁵ The Donor Committee on Small Enterprise Development, chaired by the World Bank, published a set of guidelines in 2000 aimed at improving practice in enterprise development projects. Other donors active in the process included the International Labor Organization (ILO), International Finance Corporation (IFC), the Inter-American Development Bank (IDB), the German Technical Cooperation Agency, and the United States Agency for International Development (USAID).

TABLE 5: EVOLUTION OF ASSISTANCE TO AGRICULTURE AND PERSPECTIVES ON MSE DEVELOPMENT

Decade	Themes in International Development and Agriculture	Approach Toward MSE Development Within Agriculture, and Milestones in the Enterprise Development Field
1950s	<p>Implicit model was the Marshall Plan, in which large transfers of physical capital from the United States quickly rebuilt postwar Europe.</p> <p>Agriculture viewed as a “black box” from which people, food to feed them, and perhaps capital could be released.”</p> <p>Developing country farmers should adopt agricultural practices and technologies from the industrial countries.</p>	<p>Belief that small farms would/ should consolidate, as in industrialized countries; farmers should transfer to industry.</p> <p>Community development advocates worked with rural villagers to design and implement self-help programs.</p> <p>Ghandi’s call to rebuild India’s cottage industries leads to the development of a set of integrated “cradle to grave” enterprise assistance programs</p>
1960s	<p>The failure of the technology diffusion model adopted in the previous decade led to a move away from agricultural extension and the beginning of investments in agricultural research and human capital. Donors helped build national research capacity in developing countries.</p> <p>International funding for agriculture reached its maximum level in the late 1960s-early 1970s.</p>	<p>“Leave them alone.” Farmers and herders are calculating, rational economic agents; will adopt profitable agricultural technologies if made available.</p> <p>Beginning of large-scale attempts to channel subsidized credit to the agricultural sector</p>
1970s	<p>The ‘Green Revolution’: High-yielding rice and other grain varieties developed by researchers were rapidly adopted in Asia and to some extent in other regions.</p> <p>Dependency theorists and radical scholars were the first to focus attention on the relationships between villagers and the wider economic system; and how structural conditions in the economy affect who can participate, and how benefits are distributed, in a market economy.</p> <p>Rise and decline of Integrated Rural Development: projects that “tried to do too much”</p>	<p>Critics of the Green Revolution argued that small farmers did not benefit; subsequent researchers asked to focus on “scale-neutral” varieties.</p> <p>Debates about the advantages of large versus small farms, research on rural small-scale nonfarm enterprises.</p> <p>International Labor Organization (ILO) coins the term “informal sector,” citing employment benefits and linkages between the informal and formal economies.</p> <p>First critical evaluations citing the failures of the subsidized credit model are published</p>
1980s	<p>International debt crisis, widespread macroeconomic reform and institutional restructuring of developing economies.</p> <p>Currency devaluations fuel increased agricultural exports from Latin America</p> <p>Institutional reforms allow smallholders and the rural poor to capture some of the benefits of growth.</p> <p>International funding to agriculture decreases.</p> <p>Privatization of government agencies involved in agricultural marketing</p>	<p>Appropriate technology is developed for small processors.</p> <p>Failure of the subsidized credit model is acknowledged.</p> <p>Microcredit begins to receive international attention.</p>

Decade	Themes in International Development and Agriculture	Approach Toward MSE Development Within Agriculture, and Milestones in the Enterprise Development Field
	Rise of nongovernmental organizations in the provision of public services and in development.	
1990s	<p>Donors focus on “second-generation” issues, i.e., environment, gender, equity.</p> <p>Critics say Africa “left behind” with decrease in support to basic production agriculture.</p> <p>Focus on agribusiness and marketing; market linkages; “demand-pull” approaches and export diversification</p>	<p>Acknowledgment that microfinance has not solved the rural finance problem</p> <p>Use of subsector analysis to identify points of leverage through which large numbers of small enterprises can benefit</p>
2000	<p>Donors focus on competitiveness, supply chain development and compliance with standards.</p> <p>Strategies that have proven successful gain attention, such as branding and the cultivation of growing niche markets (i.e. organics).</p>	<p>Donor committee on Small Enterprise Development publishes guidelines stressing a “market-led” approach to building service markets</p> <p>Development projects aim to partner with private companies (“lead firms”) which control market access and/or manage extensive supply chains in developing countries.</p> <p>Principles associated with national or industry competitiveness are applied to MSEs and to the value chains in which they participate.</p>

Source: Staatz and Eicher (1998); authors' elaboration.

4.2 USAID PROGRAMS FOCUSING ON MSES IN AGRICULTURE AND AGRIBUSINESS

Some of the historic lessons learned are evident in today's programming, while others have proven harder to put into practice. A recent inventory of enterprise development programs conducted for the Accelerated Microenterprise Advancement Project (AMAP) Business Development Services Knowledge and Practice (BDS K&P) research project yields a few useful insights in recent programming trends in USAID support to agriculture and agribusiness (see Box 9). Most notable was the tendency to identify and focus on specific crops, the prevalence of processing activities, and the apparent choice made by program implementers to develop and strengthen primarily either horizontal or vertical linkages.⁵⁶

Current practice in USAID programming for the agriculture sector, as well as the current agency strategy,⁵⁷ reflect a focus on market linkages and the tendency for programs to address multiple constraints in the value chain. Just as there is a history of support to MSEs embedded within broader agriculture programming and vice-versa, another recent trend is to integrate support of agriculture-related economic opportunities into environment projects such as watershed or biodiversity conservation

⁵⁶ A qualitative review of the programs in the database suggests that non-profit implementers tend to opt for the development and strengthening of horizontal linkages—often even creating new associations—while private contractors tend to use industry expertise to fortify vertical linkages.

⁵⁷ “USAID Agriculture Strategy: Linking Producers to Markets,” U.S. Agency for International Development, July 2004.

initiatives. Whatever the heading may be—MSE development, agriculture, environment—the lessons presented below aim to provide guidance for practitioners interested in integrating commercial upgrading solutions for agriculture-related MSEs into broader private sector development programs.

Box 13: Inventory of Programs

As part of the background research conducted for the Impact Assessment activities of AMAP BDSK&P, a database of MSE development programs was compiled and analyzed. The inquiry focused on four major donors: USAID, the U.K. Department for International Development, the World Bank Group including the International Finance Corporation, and the IDB.

Programs that met the criteria for inclusion were identified as microfinance, business development services, competitiveness, trade and investment, agribusiness, or sub-sector development programs, although those that focused exclusively on microfinance and/or policy advocacy or paid no special attention to small enterprises were excluded. To be included in the inventory, a program needed to have “linking MSEs into value chains” as one of its objectives (stated or implicit), although this need not be the sole or even the main objective. The time period was limited to programs that ended after 1995; those that were currently being implemented (in 2004); and the latest USAID program designs as described in recent RFPs (2004).

A brief analysis of the database was conducted with specific reference to the USAID-funded agriculture programs. Findings are summarized below.

- 167 USAID programs were identified which included MSE development in their scope. Of these, 121 focused on agriculture.
- 60 programs listed specific crops or horticultural/aquaculture activities in which they were active. Of the remaining 61 programs, the majority (75 percent) focused on processing. Many of the crop-focused projects also included processing activities.
- The programs tended to focus on crops that offer advantages to small producers and/or opportunities to differentiate in international markets (i.e., dairy, leather, cocoa, coffee, fruits, vegetables, nuts and seeds, aquaculture, etc.). In the case of grains, almost none worked with cereals or soya, while six projects worked with rice.
- In addition to processing, program activities included policy advocacy, production assistance, improving transport and infrastructure, compliance with local and international quality standards, provision of or development of markets for support services, and the development or strengthening of horizontal or vertical linkages.
- Most programs used multiple approaches, i.e., combining policy advocacy with production assistance and horizontal linkages.
- Policy was an interesting component as there were some strong positive and negative correlations in terms of the combination of approaches. Competitiveness programs working at the sector level were likely to include policy advocacy, while programs focusing on firm-level assistance tended not to work on policy issues. Programs focused on horizontal linkages were very likely to include policy-related activities.

Sources: Snodgrass, Donald et al., (2004). “Inventory and Analysis of Donor-Sponsored MSE Programs,” Report produced under AMAP BDSK&P and Rees, Matthew, “Trends in Agribusiness Programming by USAID,” DAI Memorandum, 1/11/05.

4.3 CONCLUSION

A model for agriculturally driven growth with poverty reduction will need to contemplate the participation of large numbers of MSEs. In addition to the role MSEs play in diffusing the benefits of growth throughout rural areas and to low-income households, it is important to recognize that

- MSEs are active participants at all levels of agriculture and agribusiness value chains;
- they may possess comparative advantages deriving from their access to land, labor, or other factors of production, or from the flexibility associated with their small size;
- they can contribute to the competitiveness of agribusiness value chains.

There are forces at work today that threaten to exclude MSEs and the poor from the economic development process, i.e., globalization and trade liberalization, the consolidation of retailers and concentration in ownership in food systems, and the emergence of international grades and standards, which imply high costs for compliance. There are also glimmers of hope—emerging technologies that reduce the isolation associated with long distances and lack of market information, and examples of competitive strategies that have been successful in allowing MSEs to integrate into global markets. Such strategies may be sophisticated and include large-scale branding efforts, such as in the case of Egyptian Cotton or the Haitian Bleu example used earlier; or they may be ad-hoc and respond to specific one-time market opportunities, as in the case of Kenya BDS' work with avocados or the Centro para el Desarrollo de Agronegocios in Honduras. Depending on the nature of the market constraints and opportunities, institutional arrangements to strengthen horizontal linkages may be complex and long-term, such as the creation of a federation of grower cooperatives; on the other hand, producer groups may simply be organized around the pooling of one crop during one growing season. As important as developing the best market strategy is understanding dynamic value chain factors, namely: power relationships among firms, mechanisms for learning and innovation, and the distribution of benefits. These factors, and how they are addressed, will influence whether project results are sustainable over the long term.

This paper aims to inspire development practitioners in agriculture and agribusiness to develop creative, economically viable solutions to MSE business problems. By linking MSEs to each other and to lead firms, small-firm strategies can benefit from large-scale resources, and achieve large-scale success. A blueprint for future agriculture and agribusiness programming to stimulate broad-based growth via MSE development should include the following elements:

- A policy and regulatory environment that provides incentives for smallholder and MSE participation in markets;
- Vertical linkages—and systems of vertical coordination—that take a long-term, inclusive approach to working with smallholders and MSEs;
- Horizontal linkages and cooperation among like firms to reduce transaction costs and achieve external economies;
- Upgrading of both the chain and firms in the chain by promoting product and process innovations, improving the flow of information and learning, and addressing systemic constraints;
- Supporting markets to ensure sustainable access finance, business services, and inputs; and
- Competitive strategies that bring these elements together into commercial solutions that offer developmental benefits, i.e., national branding, penetration of niche markets, social marketing strategies.

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