Success in Adding Value: The Case of the Agro-Processing Sector in Ghana, West Africa

Leigh Anne Yow

April 23, 2002
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# List of Abbreviations

- **African Growth and Opportunity Act (AGOA)**
- **European Union (EU)**
- **Federation of Associations of Growers and Exporters (FAGE)**
- **Federation of Chilean Agro-processors (FEPACH)**
- **Fresh Fruits and Vegetables (FFV)**
- **Ghana Export Promotion Council (GEPC)**
- **Government of Ghana (GOG)**
- **Gross Domestic Product (GDP)**
- **Horticulture Export Group (HEG)**
- **Institute of Statistical, Social and Economic Research (ISSER)**
- **International Monetary Fund (IMF)**
- **Ministry of Trade and Industry (MOTI)**
- **Multinational Corporations (MNCs)**
- **National Democratic Congress (NDC)**
- **National Patriotic Party (NPP)**
- **Non-governmental Organization (NGO)**
- **Non Traditional Export (NTE)**
- **North Carolina (NC)**
- **Quality, Reliability and Efficiency (QRE)**
- **Research Triangle Park (RTP)**
- **Sanitary and Phytosanitary (SPS)**
- **Seafreight Pineapple Exporters Group (SPEG)**
- **Sigma One Corporation (SOC)**
- **Trade and Investment Program (TIP)**
- **Trade and Investment Reform Program (TIRP)**
- **United Kingdom (UK)**
- **United States of America (US)**
- **United States Agency for International Development (USAID)**
- **Value Added Production (VA)**
- **Value Added Tax (VAT)**
- **Vegetable Producers and Exporters Association of Ghana (VEPEAG)**
- **World Bank (WB)**
Acknowledgments

My sincere thanks to those who have made this project a success, from its inception, to the research opportunity, to the writing, and lastly, the completion of the final product.

For the report framework, I would like to thank:
• Meenu Tewari, for her suggestion of Judith Tendler’s capable work as a guide for the structure of this report

For the research opportunity, I would like to thank Sigma One Corporation. Their staff both in the US and Ghana made the collection of the data possible:
• Dr. Joseph Goodwin, for his patience while briefing me on the current situation in Ghana
• Ms. Esther Ofosuapea, for her administrative expertise
• Mr. Emmanuel Owusu, for his keen sense of measurement proxies and data availability in Ghana
• Mr. Emmanuel Ahwireng, for his flexibility
• Mr. Abrar Sattar, for his efficient instructional capabilities
• All listed interviewees, for the generosity with their time

For the conscientious help and critiques during the writing of the report, I would like to thank:
• Meenu Tewari, who helped me produce from my very rough draft in December to a finely-tuned argument in April
• Roberto Quercia, for his willingness to suggest and teach a class that very effectively instructed me how even to approach the writing of a draft

Finally, for the completion of the final product, I would like to thank:
• My sister, Jan Yow, for her willingness to read and critique a very long document at very late hours (and after all that, the kindness to say she even thought it was good!)
• My fiancee, Jon Friesen, who took time from his busy law school schedule to do what law students do best: read and critique my argument

Thanks again to a great team. This research report is as much their success as it is mine.
Abstract

Agricultural entrepreneurs in developing countries have begun to look toward value-added (VA) production as the next key strategy for economic growth. Increasing competition due to the globalization of production and trade has led a growing number of developing countries to encourage exports as important part of improving international competitiveness. This strategy is consistent with the current consensus in the literature. The strategy further suggests targeting non-traditional exports (NTEs) to diversify the economy. VA production is a way to increase the amount of price control over NTEs, and improve the income potential for developing countries. For this reason, this research explores why some Ghanaian agricultural firms have succeeded at VA exports and others have not. In addition, it looks at what conclusions can we draw about what firms, business associations, and the government can do in developing countries to stimulate and encourage VA production.

The argument of this research paper is that in successful cases, the achievement of viable VA production was the result of a sequence of steps. These steps form the three themes that this paper will discuss within the context of Ghana. The first, leverage of resources through organizational arrangements and mergers, helps firms to capitalize on the assets of other organizations through vertical and horizontal linkages. The second, interfirm knowledge transfer, occurs between buyers, industry cohorts, and entrepreneurial partners. It allows firms to experiment with new procedures, and compare their results with other firms’. The third, novel combination of information and inputs, enables firms to take advantage of their flexibility and creativity to quickly identify alternative courses of action, thus avoiding failure.

The implication of these findings for firms is that those who exhibit the three characteristics above are more likely to be successful at shifting to VA production than those who do not. The implications for business associations is that they must play a key role by keeping the necessary information flowing through a network that has vertical and horizontal exchanges. The implication for the state is a role of economic stabilization and sustenance of a legal and business environment supportive of private enterprise, as well as working with local firms to help them gain entry into market networks.
Introduction

Agricultural entrepreneurs in developing countries have begun to look toward value-added (VA) production as the next key strategy for economic growth. In the past decade, as countries around the globe have opened up to freer trade, production has become more internationalized. One result is that competition has dramatically intensified. In this increasingly globalized environment, a growing number of developing countries have begun to encourage exports as a key development strategy. Among donor and policy circles, a consensus is emerging that sustained export growth is important to increase the competitiveness of national and regional economies. The sense is that sustained exports in the face of intensified international competition calls for an inevitable shift from the export of commodities to value added exports.

The literature cites several reasons for this shift toward non-commodity exports. Many developing countries have economies too small for growth to be sustained by the size of their domestic markets. Therefore they must trade to have access to the technology, equipment, and other goods and services that they cannot efficiently produce. These same countries have historically relied on the trade of traditional commodity exports such as rice, grain, cocoa, or industrial metals. In extremely competitive markets, they must accept a uniform price as determined by the world market. Thus, in these markets they are “price-takers”. Many donor agencies and non-governmental organizations (NGOs) argue that a small domestic market, and price-taking, renders these
countries powerless to control the future of their economies against the fluctuations and cyclical declines of commodity markets, as well as the low income elasticity of demand for traditional commodities (Sigma One Corporation TIRP technical proposal, 1998).

Ghana, West Africa, has also found itself facing the economic challenges discussed above. To combat these challenges, Ghana has recently embarked on an ambitious journey to reach middle-income status by the year 2020, a campaign christened “Vision 2020”. Their goal is to become the “Gateway of Africa”: the entry point for all of West Africa’s international trade. Ghana is among a handful of good performers in Africa. Nonetheless, it faces powerful challenges in successfully breaking into export markets. The challenges that Ghana, and other countries like Kenya and Nigeria, face in exporting traditional commodities is evidence of the value of the consensus converging in the international development literature on non-traditional exports (NTEs) as a viable developmental strategy [Harris-Pascal et. al. (1998); Barrett et. al. (1997); Gereffi (1994)].

Many policymakers see diversification of a country’s exports to those on which the country has not historically focused as a way to improve the country’s ability to sustain a stable economic base, and thus begin to grow. However, if this diversification of exports is only to more commodities, although non-traditional ones, that does not solve the problem of being subject to low world prices and fluctuations in demand. Therefore, an ensuing question of
importance is what types of diversified exports will be able to demand a higher price in the world market, and how producers can learn how to shift to the production of these more sophisticated products.

Agricultural entrepreneurs have begun to address this question with the promotion of value-added (VA) production. “Value added” (VA) production can be defined as “an increase in the amount of money a producer can charge for a product resulting from its transformations at a particular stage of production.”¹ The various VA products can utilize the tools of marketing or branding to increase the amount consumers will pay for the product on the market. In this sense, the use of VA products is an important way to capitalize on an economy’s diversification program in order to get the most return on their investment.

**Why Ghana?**

This research places the case of Ghana within the context of the current VA debate. Aided by this placement, this research makes a very necessary contribution. There is a substantial amount of the current literature about the constraints of value added production and the Fresh Fruit and Vegetable trade between East Africa and Europe on which this report builds. However, very little research is available in the literature that examines other parts of Africa, and

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¹ The difference between a VA product and a commodity is that the latter is homogenous in characteristic, while the former is not. Products that have value added to them, however, take on any number of distinguishing characteristics. For example, one raw pineapple looks, feels, and tastes very much like every other raw pineapple. The extent of differentiation is variety. On the other hand, once value is added to the product, it can take on many forms. These forms can range from a transformation as simple as packaging the raw pineapples in attractive boxes for export by sea, to cutting and chilling the pineapple for export by air.
their links to the United States (US). To examining the ways that the constrains currently addressed in the literature have manifested themselves in West Africa, as well as the innovative ways that entrepreneurs in countries like Ghana are responding to them, more fully rounds out the literature on this subject.

The US government’s new initiative to stimulate economic growth in Africa, via the African Growth and Opportunity Act (AGOA), gives my report findings additional merit. More information about the nature of West Africa’s development constraints will aid policymakers in evaluating the impact that AGOA will have on the continent. Therefore, given Ghana’s potential for leadership in the region, an investigation of how some of its firms have met the challenge of value added production will be very useful in the determination of future policies in this area.

In addition, the government of Ghana (GOG) is in the process of partnering with the United States government development agency, the US Agency for International Development (USAID) to address these concerns. Since 1992, the two countries have collaborated on programs aimed at developing Ghana’s NTE sector, and improving the VA production in the country. From 1992 to 1998, the countries jointly launched the Trade and Investment Program (TIP) with the objective to "increase private sector non-traditional exports, and improve the enabling environment for private sector export firms". Among other products, these non-traditional agricultural exports included the production and export of pineapples, cashews, bananas, and yams. Key to this increase was an
important institutional contribution by TIP. TIP created numerous business associations as well as a federation to oversee them. As this paper will point out, these associations play a very significant role in successful upgrading to VA production.

The follow-up to the TIP program is the Trade and Investment Reform Program (TIRP). It began in 1998 and will run until 2002. TIRP builds on the success of TIP by expanding the diversification mandate to address issues of business linkage development and policy reform. TIRP, therefore, has two components. The first is increased private enterprise performance. The goal of this component is to help local entrepreneurs develop commercial linkages with domestic and foreign buyers. The second is improved policy environment and financial intermediation. This component’s goal is the reformation of broader macroeconomic and trade sector policies aimed at creating a legal and business environment that better meets the needs of the growing private sector. These programs illustrate Ghana’s commitment to change, as well as highlight the importance of a strong institutional structure in successful VA production upgrades.

This paper will take just one of the industries on which TIP focused, the pineapple industry, to illustrate the key themes of successful VA production discovered in Ghana’s agro-processing sector. It will look at why some agricultural firms have succeeded at VA exports while others have not. In addition, it sets the stage to help draw conclusions about what firms, business
associations, and the government in developing countries can do to stimulate and encourage VA production.

I expected to find a situation on the ground in which access to capital was the main constraint, given the emphasis in the literature, in governmental and in donor accounts on the importance of access to working and expansion capital. Indeed, my research results show that among the key constraints facing Ghana’s VA producers are lack of sufficient access to capital (due to import constraints, lack of access to long-term credit, and lack of sufficient investor interest), a lack of necessary infrastructure (especially cooling chains), and the ultimate lack of governmental provision in these areas.

However what was surprising, and what becomes an important contribution of this study, is that I found that despite their common problems, some firms were doing better than others. Therefore, it is the goal of this research to explain how this is so, and examine how some firms got around the same problems that were holding back other firms.

The three factors I found to be critical were (1) advantageous organizational arrangements, (2) the use of innovative problem solving techniques, and (3) the ability to learn from industry counterparts. These are the key reasons why some firms have succeeded despite these constraints.

One can draw several conclusions from the results. One interpretation, in the case of organizational arrangements and mergers, is that these relationships are important for establishing the horizontal and vertical linkages needed for
networking that facilitate interfirm knowledge transfer. Another interpretation, of the significance of this learning process, is that it is important to have opportunities for entrepreneurs to network (at a local, regional, national, and international level) in order to learn more innovative ways to produce. One can make a final interpretation, regarding the novel combinations of information and inputs companies create, some of which are facilitated by the learning they do from observing other entrepreneurs. These combinations are important because they highlight the flexibility and creativity inherent in private enterprise that allows them to take advantage of VA production and ultimately surmount the obstacles they encounter along the way.

These interpretations have implications for the program, policy, and future research in the area. With respect to the program, informants suggest that it should have a narrower focus on the stimulation of VA production, as opposed to covering such a broad range of policy issues from fiscal and monetary policy to labor and trade regime policy. The research detailed in this report also suggests more attention be placed on developing organizational arrangements. These arrangements allow firms to take advantage of the knowledge and contacts of their industry members to help them better meet the challenges encountered in VA production.

With respect to policy implications, the informants recommended improved duty drawback policies that would reduce the reimbursement delays. They also believe the government should take a more pro-active role in creating
incentives for VA production through improved infrastructure such as cold-storages and better financing options.

However, my research shows that VA upgrading is not just about cold storages and logistics. What is different about NTEs and what makes NTEs difficult for poor regions is the critical nature of product quality (Dolan and Tewari, 2001). This includes the freshness of the fruits and vegetables in the cold storages, and therefore refrigerated storages are critical. Unlike grain storages, refrigerated storage and transport facilities are extremely costly, and often exceed the cost that single producers can bear. Therefore, a case can be made here for the government to treat them as public goods and provide them as collective facilities.

Regarding the impact of these results on firms, business organizations, and the state, this report concludes that firms who implement the innovative practices identified here are more likely to be successful at shifting to VA production. Business associations play a key role in that success by keeping the necessary information flowing through a network that has vertical and horizontal exchanges. The vertical information exchange occurs through forward and backward linkages connecting nodes of production in a commodity chain. The horizontal exchange occurs between the nodes of production and international donor consultants, governmental extension agents, and industry counterparts from other countries. The state’s role then becomes one of economic stabilization and sustenance of a legal and business environment supportive of
private enterprise, as well as working with local groups to help them gain entry into such a market network.

Finally with respect to future research, the interpretations and implications in this report should be further developed and explored. In addition, a more comprehensive, quantitative, and generalizable study of the agro-processing sector in Ghana would certainly shed more light on the current situation. These further endeavors in VA production will help focus it as a lens through which policy makers can view the real issue at hand of production, trade, and its effect on development at the firm level.

**Methodology**

The methodology used is a “One group design” comparison, including a “Before and after a program initiation” evaluation of the Trade and Investment Reform Program (TIRP) program. The qualitative data source is formal, in-person interviews with topic-oriented, open-ended questions. Topic areas were Financial Markets, the Trade Regime, Productivity and Profitability, Labor, Organizational structure, Transparency/Equality, and Improved GOG services (Appendix B). Further concept measurements are the following: Value added production will be defined as a firm producing and selling at least one product that has experienced at least one upgrade from a raw to processed product. Success will be defined in a variety of ways. It is the ability of an organization to upgrade in order to adjust, adapt, and respond to the demands placed on it by
today’s ag-export markets such as timely delivery, high quality, and low cost. In addition, firms entering new markets or surpassing challenges will also be considered evidence of success.

Additionally, I would like to clarify that the research detailed is a look at the agro-processing sector in Ghana, and not intended to be a comprehensive, quantitative, or highly generalizable study. A small sample size and the scarcity of firm-level data in a developing country are among the obstacles to be overcome for future research projects that build on this one. However, this introductory study of one of the most important economic sectors in Ghana offers particular insights into the challenges the VA poses, and serves as a concrete example of what has been done successfully, and what has not. It strives to place Ghana’s VA experience within context of the current literature debate, which will be an effective starting point for the discussion.

**Structure of the paper**

My goal in this paper is to explore the reasons why some firms in Ghana have succeeded at VA exports and others have not. In addition, I will draw conclusions about what firms, business associations, and government can do to stimulate and encourage VA production. In the introduction of the report, I briefly outline the rationale for the study of VA production, as well as define it. I detail the contribution this research makes to the current literature, and touch on the report’s methodology.
Then, I introduce the case study of Ghana that examines the pineapple industry in Ghana. I will use this industry to illustrate key themes I found across the agricultural sector, and note what steps countries like Ghana are taking to improve this production. This discussion will include the implementation of TIP and TIRP whose goals I summarize. Finally, I lay out my argument that in the successful cases of VA production, access to capital was not a unique enabler but the result of a sequence of steps that led up to it including the firms’ participation in helpful organizational arrangements, innovative problem solving, and interfirm knowledge transfer.

Next, I review the current debates and issues in the literature with respect to VA production. This section outlines the theoretical framework for the paper, that of Gereffi’s Commodity Chain. It highlights the key players in such a chain, and discusses to position in which Ghana finds itself within this framework.

In the Findings section, I discuss the three key themes found throughout Ghanaian agricultural firms and business organizations that constitute my argument. They deal with how firms are able to overcome the constraints of VA production. This section also discusses the implications of these findings.

In the Implications for Policy section, I discuss the policy implications of these themes, and begin to draw conclusions about what firms, business organizations, and government can do to stimulate VA production.
The case of Ghana

Ghana, West Africa (Table 1), is facing the economic challenges of a small domestic market, and lack of control over the prices of the commodities it exports: traditionally cocoa, gold, and aluminum.

Table 1. Ghana at a Glance (1991-2000)

<table>
<thead>
<tr>
<th></th>
<th>1991</th>
<th>2000</th>
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<tr>
<td>Surface area</td>
<td>238.5 thousand sq. km</td>
<td>238.5 thousand sq. km (1997)</td>
</tr>
<tr>
<td>Population per sq. km</td>
<td>50.0 (1984)</td>
<td>84.0 (1997)</td>
</tr>
<tr>
<td>Population growth</td>
<td>2.6% (1984)</td>
<td>2 %</td>
</tr>
<tr>
<td>Life expectancy</td>
<td>52 (M) / 56 (F)</td>
<td>60 years (1998)</td>
</tr>
<tr>
<td>Population below national poverty line</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>GDP</td>
<td>5.2 bil US$ (1988)</td>
<td>5.4 bil US$</td>
</tr>
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</table>

Sources: EIU Ghana Country Profile (1991); World Development Indicators Database (2000)

To combat this, Ghana has recently embarked on an ambitious journey to reach middle-income status by the year 2020, christened Vision 2020. Due to their strategic location (Figure 1), their goal is to become the “Gateway of Africa”, the entry point for all of West Africa’s international trade. Agricultural entrepreneurs
in the country of Ghana have begun to address this challenge in various ways, one of which is VA production.

**Figure 1. Map of Northern Africa and the country of Ghana**

This focus of this research is value added (VA) *agricultural* production because the labor and economy of the majority of developing countries is dependent on the agricultural sector. The majority of NTE literature tends to target agricultural products. Products range from meats (beef and poultry); seafood (fish, shrimp, tuna); and nuts (cashews and brazil); to beans (coffee and soy); and horticultural products (fresh fruits, vegetables, fresh flowers). These
products seem to be the most readily available in lesser-developed countries, and simultaneously the highest in demand by more developed countries. Fresh fruits and vegetables (FFV) are particularly in demand by the more developed countries, especially during their off-season of production. It is primarily this demand for year-round produce in these countries that drives much of the international commerce between the lesser and more developed countries and, consequently what drives the NTE literature.

This is the case in Ghana. Among the various sectors of the economy of Ghana, the food and agricultural sector appears to be the most important in terms of its contribution to the gross domestic product (GDP), foreign exchange earnings, tax revenue, employment and as a source of income for the citizens. For instance, in 1999, agriculture’s contribution to the GDP in 1990 constant prices was estimated by the Ghanaian Statistical Services to be about 40.5%. This looks like it has declined considerably from about 50% during the last two decades. However, this decline is mainly due to the expansion of the service sector. The estimates for the other major sectors of the economy, industry and services, in 1999 were estimated at 27.6% and 31.9%, respectively for 1999 (Table 2).
Table 2: Contribution to GDP by Sector, 1990-99 at Constant 1990 Prices (Percentage)

<table>
<thead>
<tr>
<th>Year</th>
<th>Agriculture</th>
<th>Services</th>
<th>Industry</th>
<th>All</th>
</tr>
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<tbody>
<tr>
<td>1990</td>
<td>43.5</td>
<td>42.4</td>
<td>14.1</td>
<td>100</td>
</tr>
<tr>
<td>1991</td>
<td>43.3</td>
<td>42.8</td>
<td>13.9</td>
<td>100</td>
</tr>
<tr>
<td>1992</td>
<td>41.4</td>
<td>44.4</td>
<td>14.2</td>
<td>100</td>
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<td>1993</td>
<td>40.5</td>
<td>45.3</td>
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<td>1994</td>
<td>40.8</td>
<td>31.3</td>
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<td>1995</td>
<td>40.6</td>
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<tr>
<td>1999</td>
<td>40.5</td>
<td>31.9</td>
<td>27.6</td>
<td>100</td>
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Given the importance of agriculture in Ghana, many entities there—the government, Grower/Exporter Associations, even the producers themselves—are advocating VA agro-processing as the key to export success. However, not much of substance appears to have been achieved. In a recent news article in Ghana, the Deputy Trade and Industry Minister, Boniface Abu Sadique, told manufacturers to “add value to products”. He said that, “It is government’s policy to add value to our primary products for export.” (Daily Graphic, Accra, 6/28/01). He said this, presumably, because he is aware of the increased price-control a country has over its VA products. Likewise, the Vegetable Producers and Exporters Association of Ghana has recently added a new objective to their mission statement: “To encourage processing as a means of adding value to
products” (Gyamfi, 2001). The seriousness of the intent of this commitment is evidenced by their on-going partnership with USAID in the TIP and TIRP programs.

**TIP and TIRP**

It is important to note that the move toward VA production has not just been left solely for the market to decide, but supported in important coalitions between industry, key public institutions, and donor agencies. Key institutions like the GOG and USAID have implemented two programs aimed, in part, at developing Ghana’s NTE sector, and improving VA production in the country. These programs are the Trade and Investment Program (TIP) from 1992-1998, and the Trade and Investment Reform Program (TIRP) from 1998 to the present.

Since 1992, the GOG and USAID have collaborated on programs targeted at Trade and Investment. The key actors in this endeavor include the government of Ghana (Ministry of Trade and Industry [MOTI], Ministry of Finance [MOF]); Ghanaian exporting firms (Agriculture, Manufacturing sectors, etc.); Monitoring organizations (International Monetary Fund [IMF], World Bank [WB]); Governmental Aid organizations (USAID); and NGOs (National and International Consulting firms such as Sigma One Corporation in Research Triangle Park (RTP), NC; International Aid organizations such as CARE, etc.).

In 1992, USAID/GOG launched the “Trade and Investment Program” (TIP) with the objective to "increase private sector non-traditional exports, and
improve the enabling environment for private sector export firms”. These exports included pineapples, cashews, bananas, and yams. Under TIP, pineapples increased in volume and value. TIP ended in 1998. Currently, there are around 10 major raw pineapple producer or exporters, and numerous smaller organizations and small farmers. In addition, there are two major value-added producers doing juice concentrate and chilled sliced fruits. Associational representation comes from the Horticultural Exporters and Growers Association (HEG), and the Seafreight Pineapple Exporters of Ghana group (SPEG).2

When TIP was completed in 1998, USAID judged the program successful (Table 3) based on the fact that it surpassed its targets in nominal value of NTEs, number of new full-time jobs in NTEs, and number of firms participating in NTEs (Ariza-Nino et. al., 1996).

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<th>1993</th>
<th>1995-6</th>
<th>TIP Goal</th>
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<tbody>
<tr>
<td>Value of NTEs</td>
<td>$72 mil</td>
<td>$388 mil</td>
<td>$250 mil</td>
</tr>
<tr>
<td>Number of Direct Full time equivalent jobs</td>
<td>11,999</td>
<td>64,667</td>
<td>42,000</td>
</tr>
</tbody>
</table>

Source: 1996 Ariza-Nino study

A major contribution of TIP was its establishment of various product associations including the Ghana Yam Producers and Exporters Association, the

2 They are preparing to merge in the coming year.
Organization for Export Development of Seafood, and the Horticulturalists Association of Ghana. Encompassing the product associations is one umbrella organization, the Federation of Associations of Ghanaian Exporters (FAGE). TIP created FAGE in 1992 to be a credible private sector partner to the government, and to unify a fragmented private sector front. According to the Executive Director of FAGE (Augustine Adongo), the organization initially had difficulty fulfilling this role. TIP established the organization using top down methods, and therefore grassroots private sector support was more difficult to get. Many in the private sector did not trust, nor were not interested in working with, an organization created by the National Democratic Congress (NDC) government.  

During the past three to five years, FAGE has mainly had a lobbying role, but is now repositioning itself to provide more services and products. These include weekly fruit and vegetable price reports in the national newspaper, training opportunities ("Strategic Management: Growing Your Business in a Hostile Environment"; Computer courses); internet use; web page designing and hosting services for exporters; and a resource library.

The Trade and Investment Reform Program (TIRP) is the follow-up to the TIP program. It began in 1998 and will run until 2002. TIRP builds on the success of TIP by expanding the diversification mandate to address issues of business linkage development and policy reform. TIRP, therefore, has two components. The first is increased private enterprise performance. The goal of
this component is to help local entrepreneurs develop commercial linkages with
domestic and foreign buyers. The second is improved policy environment and
financial intermediation. This component’s goal is the reformation of broader
macroeconomic and trade sector policies aimed at creating a legal and business
environment that better meets the needs of the growing private sector. The
GOG is supporting TIRP’s efforts by declaring the new millennium as the “Golden
Age of Business”.

Appendix A details TIRP’s program theory with respect to VA. As the
diagram shows, my initial hypothesis was that one of the key explanations for
why some firms succeed at VA and others do not is related to their respective
access to capital. However, as this report will show, the ingredients of successful
VA production are more diverse than just access to capital. A review of the
secondary data as well as the stakeholder interviews reveals that the firms’
ability to form advantageous organizational arrangements and mergers, find
innovative solutions to challenges, and to gain knowledge from multiple sources
are also important factors. Thus, this project will examine several firms who
have been successful at VA production, and others who have not with the goal of
determining how these factors influence their achievements.

An important point to be made here is that success can look different at
different points in the program. As mentioned above, USAID has one set of
criteria that it is uses to evaluate TIP and TIRP, but my research conducted on

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3 This was the current government at the time. They had been in power for almost 30 years, and had the reputation for
not wanting to engage the private sector. They were replaced in 2000 by the National Patriotic Party in free elections.
the ground allows me to elaborate on the criteria for success, thus accounting for several aspects of success that a narrower focus would miss. For example, firms entering new markets or surpassing challenges, too, can be considered evidence of success.

Thus, beginning with a look at TIP and TIRP, my research was framed as an evaluation of Ghana’s VA initiatives in agro-processing. I wanted to examine how VA production was playing out on the ground with agricultural producers in Ghana. Given the rhetoric of the Ghanaian government and their successful involvement in TIP and TIRP, I went into the field expecting to find many examples of companies doing VA production. I was surprised to have trouble finding more than a handful of companies engaging in it. I then looked at why some of those agro-processors were successful doing VA production and others were not. When I asked this question, my respondents indicated initially that the main issue was lack of access to capital, both working and expansion.

**Hypothesis and Central Argument**

My preliminary hypothesis, therefore, was that the key for successful VA producers was adequate access to capital. During my analysis of the data, I did find that access to capital was a problem. However, looking deeper, I found that the answer was much more complicated and interlinked with other issues. In part, the cases in which firms had been successful with VA production, there was something that they had done in response to a domestic problem, for example,
taking advantage of an opportunity to link up with outside buyers. Or, they were doing something innovative in response to a local problem that improved their reputation abroad, and caught the attention of foreign buyers. What followed the attention received, were connections, capital, markets and technical assistance.

My argument, then, is that in the successful cases access to capital was more often than not the result of a sequence of steps. These steps form the three themes that this paper will discuss within the context of Ghana. They are (1) taking advantage of organizational arrangements (finding buyers, linking up with outside partners); (2) learning from those buyers and partners, and (3) finding innovative solutions to daily production challenges. My research results show that access to capital had more to do with these three steps than with simply getting a loan, or receiving infusions of donor capital.

**Key insights**

In exploring the practices of some successful agro-processing firms, this paper highlights various ways that these firms and regions are meeting the challenges they have faced. It also examines how they have succeeded in meeting these challenges in developmental ways that generate learning that has broader spillover effects. From these stories, this sub-section extracts a list of five insights garnered from the research findings.
One, it is important that my initial hypothesis—infusion of capital was the main way successful firms overcame VA production constraints—is part, but not all of the answer. Two, just as important as capital access is how efficiently and creatively that capital is obtained and used. In cases of success, it will be used to foster effective organizational arrangements that yield improved opportunities for learning and novel combination of information and inputs.

Three, also significant is the identification of a clear pattern underlying successful VA production in pineapples in Ghana, and that the unit of analysis of that success for policy analysis is not just the individual firm, but the group network of associations and the relationships contained therein. Four, a significant lesson is the realization that a commodity web, more so than just a commodity chain, exists to link the various players engaged in VA production. This web, then, is the supporting structure that nourishes the success of the entire operation. Five, a final lesson to focus on is that novel combination of information and inputs is a very important skill for entrepreneurs to have and one that merits policies and programs that encourage its nurture and improvement.

**A Framework for the discussion of NTEs: the Global Commodity Chain**

The framework that has been commonly used to understand the production of non-traditional agricultural exports is the global commodity chain. This framework is the concept that each one of the production sites in a
particular industry is not a lone unit, but connected by both backward and forward links to its suppliers and buyers respectively (Gereffi, 1994). The main actors are clear, but the industry is not uniform (Harris-Pascal et. al., 1998).

Nevertheless, it is possible to provide a general characterization of the relationships (Figure 2). Players in this chain in the African FFV trade typically include Retailers/Buyers (Supermarket chains, Small retailers, Catering trade, Wholesale); Wholesale/Regional Supermarket Distributor; Importers (Category Managers); Exporters; and Producers (large contractors, plantations).
Figure 2. Produce flows and players in the Fresh Fruit and Vegetable Commodity Chain (from Harris-Pascal et. al., 1998)
The *buyers* are the main actors. They drive the global commodity chain for the FFV trade by demanding certain standards from the chain (for example: top quality product, consistency of product quality, reliability of supply, efficiency (QRE); and conformance with external standards, value added). Some will have multiple category managers for the same product line while others will have just one or two. They are responsible for interpreting the desires of customers and society and shaping the chain to meet them. The *Regional Supermarket Distributor* is the intermediary between Category Managers and Supermarkets. *Importers* manage a particular range or ‘category’ of fresh produce. Previously they were wholesalers. They take responsibility for developing new sources of supply, supporting producers and monitoring performance. Some managers own exporters and plantations in Africa. Some will supply one or two supermarkets, while others will have multiple customers. They are typically proactive in research, design, and innovation. They play a role in translating new product ideas into viable production, processing and transport, performing market research, keeping abreast of competitors’ retail offers, and monitoring and auditing production.

Some African *exporters* have their own category manager in the place to where they export (for example, the United Kingdom [UK]), but it varies considerably the extent to which they source their products from their own farms and plantations. They, too, are proactive in research, design, and innovation.
They perform trials for new varieties and seek to adapt crops that have been successful in other countries to their own growing environment.

*Producers* are often large operations, and owned by exporters. They, also, are proactive in research, design, and novel combination of information and inputs. In the context of the African FFV trade, Ghana is considered primarily considered a “producer”. As Gereffi points out, this location in the chain feels considerable pressure from the end-buyers of their product which accounts for a number of the challenges Ghana, like other developing countries, must overcome to be successful at VA agricultural production.

The nature of these links with global buyers highlights both the upside and the downside of an NTE program. While it gives local agro-processors access to global markets, unless certain criteria are met, the insertion of a small developing export trade program into a powerful buyer driven chain may foster dependence on those buyers, and offer few positive spillover effects in the form of local inter-firm linkages. In addition, these narrow dependencies of local firms on large foreign buyers tend to foster vertical, rather than horizontal relationships (Harris-Pascal et. al., 1998).

An additional caveat for a lesser-developed country attempting to newly establish itself in highly competitive and developed export markets is to make sure the government provides the necessary support in infrastructure, financial sector development and policy environment (Harris-Pascal, et. al., 1998). Finally, keeping all these concerns in mind, the literature emphasizes the
importance for firms to engage in innovative problem solving and learning among firms (Harris-Pascal, et. al., 1998 and Perez-Aleman, 2000).

Thus, this research places the case of Ghana within the context of the current VA debate using the framework of the global commodity chain. Does Ghana attribute any importance of VA over commodity production in its agricultural sector? Do Ghanaian producers and exporters face similar constraints to those the literature highlights? What are the ways that Ghanaians surmount the obstacles they face in VA production? The next section of this research report will address these questions and more, as we move into a discussion of the research findings.

**Findings: Three key themes**

Three key themes arose from the interviews regarding how firms are able to overcome the constraints of value added production. The themes observed were, one, the use of both horizontal and vertical organizational arrangements to leverage information and resources found in other organizations; two, the creation of innovative ways to access scarce resources; and three, the ability to learn from a variety of resources.

When examining these themes, it is important to note the significance of the following evidence of success in the Ghanaian pineapple industry. Success in undertaking VA agricultural exports in a developing country is not easy (Dolan and Tewari, 2001). The literature mentions key constraints that Ghana also
experiences. VA production entails the need to meet demanding quality requirements including consistency of top quality production, efficiency, innovation, and a viable company size (Harris-Pascal et. al., 1998). In addition, Barrett (1997) as well as Raikes and Gibbon (2000) mentioned the need for investments in infrastructure such as airport facility cold stores.

In addition to experiencing similar constraints as pointed out in the literature, the key informants in Ghana identified other constraints. These were lack of access to capital (specifically delays in return receipt of duty drawbacks, access to long-term credit, and lack of sufficient investor interest); infrastructure issues (primarily the absence of a cooling chain from farm to port); and finally, lack of sufficient government provisions in the above-mentioned areas.

Thus, one can see the numerous barriers to entry for these countries, and therefore the added significance of their success in this area. In the following three sections we will explore what this success looks like by examining each of these themes in turn.

**Leverage of resources through organizational arrangements and mergers**

Firms consolidate to take advantage of situations that can lead to access to capital. Upon first glance at the situation in Ghana, access to capital did indeed present itself as a problem. The leverage of resources through organizational arrangements and mergers is one way firms access resources
otherwise unavailable to them such as capital, credit, expertise, innovation via expanded contacts and economies of scale.

In horizontal linkages and mergers, firms either collaborated with other firms in their industry (in the form of business associations such as SPEG) or consolidated with other firms of a similar type (the conglomeration of separate pineapple growers into one organization). Vertical mergers and linkages generally take the form of collaboration between a producer and a supplier (for example, organic pineapple growers receiving technical training from the organic juice producer), or the consolidation of a producer and supplier (the addition of exporting firms to the aforementioned conglomeration of pineapple growers).

One big advantage of this consolidation—the reduction in time lost due to numerous transactions—is detailed in the NTE literature. Routinely, time is lost complying with traceability requirements. These require documentation by producers to prove safety in food production and preparation, labor ethics, environmental protection, safe chemical use, and animal welfare. They are becoming an important concern of consumers, and therefore of buyers and producers. Producers are therefore required to document each step of the production process now more than ever. This makes for an additional burden on the part of exporters, as the buyers push back the due diligence responsibility to them.

The nature of this burden is an inherent disadvantage for smaller producers, due to the high-level of transactions costs associated with it. As one
exporter said, “I would much rather work with one farm of 100 acres than 100 farms of one acre.” In Kenya, smaller farmers have minimized these transactions costs by forming produce groups of 30-40 farmers called a “Woni.” The Woni can then bulk the produce, check quality and traceability, and ensure that each box can be traced back to the groups and individual farmers. The Woni is responsible for transporting the produce to the appointed collection point at the agreed-upon times, keeping records, and paying the members. This organization appears to be a good arrangement for both growers and exporters (Barrett et. al., 1997).

In Ghana, an example of this type of organizational arrangement and linkages that overcome the constraint of VA production is the company of Farma Pine. This firm is a WB-financed pineapple conglomerate that linked 5 pineapple co-ops and 2 exporters. I consider this firm successful because of the way its innovative organizational arrangement has allowed it to meet the new demands on agricultural production that increased international competition has imposed.

Farma Pine has met these demands with the help of TechnoServe. Farma Pine’s collaboration with them provided the credibility needed to obtain a World Bank small business loan for five years. The increased confidence afforded by the World Bank’s stamp of approval has had a spillover effect in local financial markets. The improved credibility increased the ease with which they can borrow local funds, which has made it even easier to do business.
One can see another example of the power of organizational arrangement in the case of Henri Wientjes. He is a Dutch 30-year veteran Banana producer in Ghana who started his own company called “WIENCO”. I consider him successful because of his ability to survive and even grow his business during the past 30 years of Ghana’s tumultuous economic situation. In his case, he surmounts the challenge of access to capital by seeking credit via his organizational contacts in Europe. By virtue of having grown up in the Netherlands, as well as having extensive business abroad, he has cultivated financial sources outside of Ghana, where they are tenuous at best. In this situation, it is important to differentiate between the issues of the relationship versus access to capital. The fact is that the nature of the relationship between Mr. Wientjes and his European contacts is ultimately what generated the capital.

As the example of Athena Foods’ shows, native Ghanaians, too, are capable of establishing external financial relationships, but it is much harder. If they have not lived abroad, or otherwise had meaningful contact with external funders, the only other opportunity for interaction is via involvement in viable business associations. Through these associations, they have access to other Ghanaian firms who have made these contacts, and who can offer technical advice and contact names. Since this type of information is often proprietary, and the firms therefore have little incentive to make it generally available, it presents an opportunity for the government to facilitate the activities of business associations to fulfill this purpose.
Effective governmental intervention is an example of one success strategy that the literature cites. Structuring financial incentives to foster ag-export development is one of the most effective roles for the government. Barrett et. al. (1997) says the government should be proactive, as in Kenya, supporting the private sector industry through a tight-regulatory framework. This strategy includes a framework for financial services and incentives. While the government is discouraged to be the primary force of scarce resource allocation, it does need to play the role of establishing a favorable business and legal environment within which private enterprise can flourish. Often, governments attempt to take a “hands-off” role in the development of a country’s private sector, which ends up being very detrimental in the areas of infrastructure and financial sector development. This effect is an observation that has caused WIENCO’s president much concern.

As will be elaborated on in the policy implications section, Mr. Wientjes was especially emphatic about the financing options, saying the amount of government-level funding to encourage production and export growth is very low. He believes the government needs to take the lead in making cheap money—with performance requirements—available to encourage VA production. Without these incentives, Ghana will be in a much worse position to produce the amount of products that will meet world demands.

In addition to the aforementioned types of arrangements, Athena Foods is an example of a partner in a successful joint venture created with the help of
foreign aid money. Athena Foods is a Ghanaian pineapple juice producer. I consider it an example of a successful VA producer because of its innovative ability to adjust and respond to the new demands placed on today’s ag-export markets, as well as its demonstrated ability to enter new markets. Athena Foods’ ability to adjust and respond innovatively to new demands is through its novel combination of information and inputs. This aspect is addressed in more detail in the section below.

Regarding its ability to enter new markets, an example is the joint venture into which it has recently entered with a Danish company via DAN-AIDA, the Danish International Development Aid organization. This situation has helped Athena Foods access more capital for VA upgrades. Simultaneously, Athena Foods’ business successful relationship with this company improves its international credibility. That has simultaneously opened up new markets for the company as well. In addition to their traditional market in Ghana, they now have access to the prestigious European Union (EU) market. Athena Foods’ medium term goal is to be perceived in the EU as a good and dependable supply source of juice concentrate. In addition to the EU market, the company finds that with every one or two shipments, they get a new inquiry on their product. These inquiries have come from places like Eastern Europe, Bulgaria, Israel, and Spain. Spain expressed an interest in a long-term contract through an intermediary.

Athena Foods’ international involvement has also spawned new regional linkage interests. Since the neighboring country of Togo has a much larger
supply currently of organic pineapple, there is a possibility that they may begin
to supply Athena Foods with organic fruits until more farmers in Ghana are
trained and certified to produce them.

The NTE literature cites the ability to attract viable funding opportunities
as high on the list of recommendations for developing countries with particularly
scarce sources of capital, both financial and human. Attracting funding from
domestic investors and foreign aid programs for these investments and
organizational restructuring activities is a viable option. The traditional
international funding agencies such as the World Bank and International
Monetary Fund can provide assistance, as was seen in the case of Farma Pine.
However, this assistance often comes with many additional performance
requirements, and may prove more difficult to utilize. A firm’s situation is more
flexible and viable if such funding is stretched by complementing it with
additional sources of external funding.

Many regions have worked to attract such types of innovating funding
opportunities to help expand their agro-exports. Barrett et. al. (1997) notes that
the easy availability of soft finance from bi- and multi-lateral aid agencies from
all over the world for export from Africa has been a key factor in the expansion
of its FFV trade. Cut-flower exporters have been the latest to benefit, with public
finance available for cool chain development of main cool stores at Nairobi built
with soft loans from Japanese aid. In Ghana, the “Ghana Fresh Company” is an
example of a creative funding arrangement. This cold-store located at the
airport in Accra was built via a private joint venture between Ghana and Zimbabwe primarily to store the latter’s cut flowers. However, after the builders did a survey to determine potential uses for the facility, they found that cold-store space is very much in demand among Ghanaian agricultural producers. So, they built the facility larger than originally planned to allow for additional space to be sold (Gyamfi, 2001). However, the overall demand has been so great, that the extra space is rather expensive, and has not been sufficient to meet it. Thus, the issue of cold-stores remains a challenge in Ghana.

Regarding the literature’s information on funding sources in the coffee and tea sector, Japanese companies and a wider range of multinational companies (MNCs) with coffee interests have formed joint ventures with Latin American instant coffee producers. Some of these ventures have built their own roasting and instant coffee production capacity in the Far East. Raikes and Gibbon (2000) claim that this dynamic seems to have passed Africa by. Based on my findings, I would argue that there is growing evidence in Africa that indicates otherwise.

Turning to the question of what these results imply, we see that one interpretation is that these relationships are important for establishing the horizontal and vertical linkages needed for networking that facilitate interfirm knowledge transfer and novel combination of information and inputs, both to be discussed in more detail below. This research indicates that success in VA production does have a pattern, and that the unit of analysis is not just the individual firm, but the network of associations and the relationships in which the
firm is a part. This distinction regarding the unit of analysis is important for two main reasons. One reason is because this perspective is different from the current trend in the literature to focus either on macroeconomic policy change at the national level, or individual firm practices at the local level. However, precisely as a result, they miss out on the dynamic that my research has shown to be essential to firm success in making the transition from the production of traditional to VA products.

The other reason that the unit of analysis is important is because it impacts the way programs and policies should be designed and implemented to best take advantage of the group dynamics. Under the TIP and TIRP programs, special attention was paid to creating the institutions needed to capitalize on this dynamism. This research now indicates the need for a stronger focus to be placed on helping the individual firms take better advantage of those organizations.

**Interfirm knowledge transfer**

Through horizontal and vertical organizational interactions, firms find ways, in the context of chronic failure or extreme uncertainty, to do something via the implementation of experimental ideas coupled with the constant reflection and monitoring of their results. The organizational relationships discussed here impact the learning processes they facilitate by providing opportunities for entrepreneurs to network in order to learn more about ways of
doing things such as producing, funding, innovating, and sourcing materials.

The literature refers to this concept as “learning by monitoring” (Sabel, 1996; Perez-Aleman, 2000). Firms start with what they know best as a benchmark, then implement ideas within the current situation to see what works and what does not. They expose themselves to other firms’ experiences to compare how they fared in comparison. The element of comparison is a key part of this learning.

A recent study of Chilean tomato paste producers showed that this process of learning operated at many levels of the economy (firms, associations, the state), and guides the communication between economic actors. The state encouraged creation of relations among and within firms, or between the state and the economy, that continually fostered flows of knowledge and maximized the possibility of learning and improving production performance (Perez-Aleman, 2000; Damiani, 1999).

In all these accounts of learning by comparison and observation, the government has a critical role to play. The government has the responsibility of facilitating these relationships, to avoid having the producers rely solely on their foreign buyers to teach them how to do successful agro-export. Therefore, small producers are not left to become too dependent upon, and thus vulnerable to, large buyers (Harris-Pascal et. al., 1998). In the case of Chile, Perez-Aleman (2000) demonstrates one way the government can fulfill this responsibility. To do this, she uses the example of the reorientation of the agro-industry business
association in Chile (FEPACH—Federation of Agro-processors) into an organization that very effectively facilitates relationships among and within firms in the Agro-processing industry.

The implementation of this concept is significant because firms take advantage of a variety of learning resources to overcome constraints to VA production. The horizontal and vertical relationships of the nature discussed above facilitate the companies’ abilities to draw on a variety of learning resources.

According to the literature, lack of necessary infrastructure and technology is commonly found to be a shortage of airport-based cold stores, packaging equipment, and refrigerated transport (Barrett et. al., 1997; Raikes and Gibbon, 2000). This deficiency is the initial barrier to entry of developing countries into the export of NTE products. These infrastructural investments are very important to meet the high food quality demands placed on exports by international buyers such as perishability, attractive food presentation, as well as reliability of supply (Harris-Pascal et. al., 1998; Barrett et. al., 1997).

The Ghana Vegetable Exporter/Grower Association (VEAPEG) illustrates an example of learning about infrastructural investments that demonstrates their tremendous importance. The international aid organization CARE organized and funded a trip for representatives of VEAPEG to learn about charcoal-based buildings that cool on-farm commodities without the use of electricity. This is extremely significant information given the prohibitive expense of more common
cooling technologies. It allows smaller producers the ability to keep their products fresh from the moment of harvest, therefore keeping them attractive and enabling their timely arrival to the marketplace.

In addition, this is an example of the essential communication that the literature cites must occur between area and regional producers. It is of utmost importance to be able to continually meet upgrading demands (Harris-Pascal et. al., 1998). Without it, producers and exporters will be unaware of the constantly changing needs of their customers with respect to quantity and quality, and the always heightened international standards of food safety, as well as the use of new technology.

Foreign aid consultants are also key players in helping developing countries meet VA upgrading challenges. Organizations like Sigma One Corporation (Research Triangle Park, NC), TechnoServe (Norwalk, Connecticut), and AMEX International (Washington, DC) are examples of US-based non-governmental organizations in Ghana providing technical consultants via USAID. Other consultants operate in Ghana via alternate international donor funding. These organizations provide various services including technical training and capacity building, policy analysis and reform recommendation, and the building of business linkages between Ghanaians and local, regional, and global entrepreneurial partners. For example, one of TechnoServe’s newest projects is cashew production and processing. On the production end, the TechnoServe consultants have trained the cashew farmers how to harvest the cashews in new
ways so they remain wholly intact until arrival to the processing house. On the processing end, they have trained Ghanaians in business management skills to run the processing facility as well as manage the cashew farmers.

An example of policy analysis and reform recommendation is Sigma One Corporation’s work to help Ghana’s Ministry of Employment and Manpower reform the country’s labor code. Sigma One’s analysts worked with government officials to analyze the code, and the submitted recommendations at a major labor conference in 1999. Sigma One judged its work successful when all of the suggested recommendations were either addressed or allowed by the draft of the new labor code (R. Franklin, 2001).

An example of building linkages between Ghanaian and other entrepreneurial partners is AMEX International’s work to link up the local artisan cooperative with similar cooperatives in the US that sell international handicrafts. This type of linkage not only helps the Ghanaian producer to learn how to improve their product, but also gives them channels through which to access new markets for it (Armah, 2001).

In addition to technical consultants, the NTE literature cites additional sources of knowledge to do VA upgrades. One source is the buyer itself, who tends to push the more labor-intensive activities—like packaging—back down the commodity chain toward the producers. Another source of knowledge is larger producers in the industry. Unfortunately, this method is not well developed in Ghana. If it were, the relationships that these larger organizations would form
with smaller enterprises, who do not have the money to pay for in-house knowledge, could be very advantageous for the smaller producers.

Business associations are important in meeting the needs of smaller producers who do not have the capital they need individually to access certain resources. Therefore, in addition to partnering with larger producers who have the know-how and equipment needed, smaller agricultural firms can also use equipment collectively purchased by their commodity or business association (Perez-Aleman, 2000). This type of advantage to being a member of such an organization is very useful in giving smaller businesses the edge (and equipment) they need to be competitive with the larger producers.

A cold-storage chain is essential for producers in developing countries to meet the international demands of quality such as freshness, attractiveness of presentation, and just-in-time delivery. In the case of Ghana, VEAPEG’s goal for solving the need for an unbroken cold-storage chain from farm to market is to buy a refrigerated van in the next two years as a complement to the charcoal houses they learned about in Kenya (Gyamfi, 2001). Thus, the initial learning about feasible infrastructure in Kenya has lead to a continued upgrading process which is leading Ghana closer to being highly competitive on the world market.

Finally, according to the key informants, the impact of Business Associations has been limited, despite the literature’s identification of their potential usefulness. However, SPEG did report having recent success lobbying
the government for pineapple sea shippers. On an additional positive note, VEAPEG reports one of its new objectives is to encourage VA production. Nevertheless, reports from several interviewees indicate that historically, these associations have been moreover just “talk shops”. This is unfortunate, because another important point the literature makes is that regions can maximize their effectiveness in distribution of trade information via producer and export associations (Barrett et. al., 1997; Perez-Aleman, 2000; Damiani, 1999). Without an effective organizational structure, much opportunity is lost to capitalize on the collective strengths of a region’s industry.

This ability to learn from the implementation and subsequent monitoring of techniques from various sources is significant because it further emphasizes the “connectedness” concept of Gereffi’s commodity chain. It indicates that each stage of production, especially production intended for international markets, is not a process separate from the other production processes that supply it and that it, in turn, supplies. It is part of an entire chain that is intimately affected by its suppliers and buyers.

However, this research goes further, beyond exploring the concept of a commodity chain. It indicates the increasing importance of a type of “commodity web” that includes not only the vertical (forward and backward) linkages of the commodity chain, but also the horizontal inputs of information from international donor consultants, governmental extension agents, and industry counterparts from other countries.
This web can be organized either by product, sector, or distribution chain. Athena Foods is a case of the web as defined by a product. They specifically align themselves with those pineapple producers whose product is unfit for raw export, but has all the characteristics needed for high quality juice production. In the case of SPEG, the members are networked based on sector (pineapple growers) as well as distribution chains (they band together to ship pineapples by sea). Thus, the respective commodity webs are the supporting structure that nourishes the success of each of these VA enterprises.

**Novel combination of information and inputs**

Novel combination of information and inputs is significant because if a resource becomes unavailable or is not accessible in the needed form (for example, capital, raw inputs, complementary/auxiliary inputs, etc.) entrepreneurs are flexible and creative enough to quickly identify alternatives and thus avoid failure. This phenomenon of innovation is very dynamic and highlights the entrepreneur’s ability to use production flexibility to his or her advantage.

The literature is clear that it is important for firms of developing countries to bring some portion of product innovation in-house (Harris-Pascal et. al., 1998; Barrett et. al., 1997). This recommendation helps to avoid one of the greatest developmental challenges that producers and their exporters face, which is becoming too dependent on their overseas buyer for business. With all the money and effort that goes into such upgrading and meeting of specific
standards, a firm or country risks gearing all of its production upgrades to a specific buyer, and then having the buyer decide to work with another supplier (Barrett et. al., 1997).

Multiple uses of scarce resources one example of novel combination of information and inputs that meet VA upgrading challenges. A good example of this is one of Athena Foods’ new products called “Flavored water”. The flavored vapors produced by the juicing process are condensed into this by-product that can be sold as a drink. This Flavored water is then used to make another Juice drink they are now piloting that will use the “bottoms” (a pineapple pulp by-product) of the processing. The pulp extraction is washed with the flavored water, and sent back through the processing line to make a thicker, juicier product. The pulp adds a good source of fiber, too.

This example of organic pineapple flavored water, an innovative, new product, highlights the potential advantages that the literature cites for finding niche markets. The literature notes that in the Fresh Fruits and Vegetable (FFV) trade between Kenya and the UK, a significant factor has been the presence of a population of Asian origin. The Kenyan producers of Asian origin have chosen to specialize in the production of vegetables demanded by the UK Asians and enjoy success at it because of their ethnic ties (Barrett et. al., 1997). Ethnic ties or unique tastes are both ways in which the exploitation of niche markets can be successful.
Novel combination of information and inputs is simply a creative use of resources. For example, a sudden lapse in Athena Foods’ plastic cup source caught them in a difficult situation. On short notice, their former source of plastic cups for their purified water product “Purita” was unable to send them cups in which to package the drink. They did some research on the Internet, and linked up with a company in South Africa who can also source the plastic cups. To retrieve the cups, Athena Foods shared storage space with another company for a fraction of the shipping costs. As the literature notes, packaging is one of the more labor-intensive activities that gets pushed back down the commodity chain toward the producers (Perez-Aleman, 2000). This ability to come through on a key issue like packaging, is a particular strength and selling point in the eyes of the buyer.

Creativity of product presentation is a final type of novel combination of information and inputs. The literature cites an example in Kenya where exporters began offering their UK buyers microwaveable sachets of mixed “light” vegetables, ready-to-eat tropical fruit salads, and ready-washed salad mixes (Barrett et. al., 1997). On the ground in the case of Ghana, I use the example of Esi Nyadodui, Managing Director of Golden Harvest Cashews, a project co-sponsored and funded by TechnoServe via a World Bank loan. Golden Harvest produces nuts and nut products. I see this enterprise as successful because of Ms. Nyadodui’s ability to find innovative solutions in difficult situations. For example, one significant challenge was that the nuts were arriving from the
farms broken, and were unable to be packed and sold as whole or half nuts. Ms. Nyadodui decided to use the broken nuts for alternate products including cookies, soup paste, and mixed nut sachets (Nyadodui, 2001). Thus, the challenge of the broken nuts was the impetus for several new products that now complement Golden Harvest’s product line.

The juxtaposition of innovative examples from Ms. Nyadodui and Mr. Mensah is particularly interesting in examining the part that educational attainment plays in addressing why some entrepreneurs adopt innovative solutions and others do not. Conventional wisdom says that the more education an individual has, the more successful they will be.

What does the evidence on the ground indicate? In the case of Dr. Tony Mensah, president of Athena Foods, his educational background includes an undergraduate degree and four years of business school in the US. Ms. Nyadodui, on the other hand, has minimal formal education, and received her initial business training selling baked good in the streets of Ghana. Yet both individuals are equally capable of creative solutions to VA production problems, a result that shows that the conventional wisdom of the correlation between education and success is, at best, mixed. An alternate explanation is ironically another piece of conventional wisdom: the will to survive. To create and sustain a successful business, one must be creative about how to use resources. This creativity gives rise to the novel combination of information and inputs that
ultimately sustains the organization through the challenging times it frequently faces.

In light of these findings it is important to again note that an approach that focuses solely on access to capital misses out on these key factors underlying good performance. The results emphasize that the flexibility and creativity inherent in private enterprise is key to allow them to take full advantage of the benefits of VA production and ultimately surmount the obstacles they find along the way.

The significance of this theme is that it reiterates the importance of networking and organizational arrangements. It says that those who have the most information about how to be innovative will be the ones who have success in meeting these VA challenges. This theme illustrated how those entrepreneurs who were able to find innovative solutions to daily production problems were those who could flexibly manage VA production, as in the cases of Mr. Mensah and Ms. Nyadodui. The importance of this skill for success in VA production underlines two points. One, just looking at issues of access to capital will not automatically shed the appropriate light on the situation for policymakers. Two, there is a need for policies and programs that encourage the nurturing of this skill of novel combination of information and inputs.

It will now be helpful to discuss the implications for policy of these three themes. This is the goal of the following section.
Implications for Policy

There are four facets to the implications of these results: one, the program; two, the policy; three, the meaning of the findings for firms, business associations, and the state; and four, the meaning for future research.

One, with respect to the program implications, interviews with the key informants indicated that several of the key constraints of VA still exist, despite the work of the TIRP program. These constraints—highlighted in this report—are lack of access to capital (specifically delays in return receipt of duty drawbacks, access to long-term credit, and lack of sufficient investor interest); infrastructure issues (primarily the absence of a cooling chain from farm to port); and finally, lack of sufficient government provisions in the above-mentioned areas. Given that these constraints persist, there are two ways that the program might be retooled to better confront these challenges.

One way to retool that the informants suggested is that TIRP adopt a narrower focus to improve the effectiveness of program dollars. Currently, in addition to addressing value added policy concerns, the program is attempting to deal with around 50 different policy issues. The informants’ concern was that with the breadth of the program’s scope, the implementers have only enough time and money to issue a report about a particular topic, such as duty drawbacks, and are not able to devote extra time to follow up with the effort needed to see effective implementation of the policies specific to VA production (Sigma One, 2001).
This report suggests a second way to retool. The program should focus more on the facilitation and encouragement of suggested organizational arrangements, given that the other two themes of novel combination of information and inputs and interfirm knowledge transfer flow directly from it. This is because they seem to make interfirm knowledge transfer, and thus innovation, more feasible.

Two, in addition to program methodology criticisms, the key informants and I address two main policy implications suggested by the research findings. First, regarding the challenge on duty drawbacks, the president of SPEG (Steve Mintah) and the president Athena Foods (Tony Mensah) both suggested that once the government identifies a good for export promotion or support, the government should not require import duties to be paid for up front. Instead, individuals should be required to payback the money saved on import duties only if the government determines later that the item was not used for the claimed export promotion or support.

Second, regarding governmental support of VA production incentives, the president of WIENCO (Henri Wientjes), a representative of the national airline, Air Ghana (Kingsly Ameyaw), and a representative of Farma Pine (John Addaquay) all agreed that the government should show be more active in the areas of providing improved infrastructure (especially cold storage space from farm to port), and better financing options.
Wientjes, the president of WIENCO, was especially emphatic about the quality of financing options, saying the current amount of government-level funding to encourage production and export growth is embarrassingly low. He believes the government needs to take the lead in making cheap money—with performance requirements—available to encourage VA production. He believes the amount should be close to $10 million. This money would ideally be interest free funds for expansion or doubling of production that are re-payable in 3 years. However, he says there is seemingly no interest on the government’s part to offer this type of funding.

One caveat regarding the success of TIRP is that the recent change in government has slowed the rate that positive economic effects have appeared in the economy. Before the new government (the National Patriotic Party, or “NPP”) took power in 2000, many of even the most basic stabilization policies some of the NDC members sought to institute—presentation of a broad budget, elimination of negative intervention in the foreign exchange market, etc.—did not have the backing of, nor enforcement by, the government at large that was needed to see the effects. Thus, the new implementation period (under the newly elected NPP) has not yet been long enough for policies to fully take effect. While the new government’s stricter polices are starting to produce positive results, it will clearly take time to reverse the effect of 30 years of the previous government.
Three, the implications of this report’s findings on firms, business associations, and the state are very significant. Three main implications have emerged. First, the findings say a firm is more likely to be successful if it efficiently and creatively uses its resources by forming effective organizational arrangements that yield improved learning opportunities and encourage novel combination of information and inputs. Firms who are able to capitalize on these arrangements are more likely to succeed at VA production than those who cannot.

Second, the findings say that business associations must be a key player in facilitating the commodity webs that develop to support a VA production network. In as much as these associations are not transparent, and do not truly serve the needs of its constituency, it impedes this network’s success. In addition, the findings imply a need for government to play a role in facilitating these associations, since the information is often considered proprietary, will little incentive to reveal it otherwise.

Third, on a macro level, the state has a key sectoral-level role to help forge marketing ties among regional buyers and then outside buyers by encouraging them to attend forums, trade meetings, and technology expos. This finding implies the usefulness of a professional, customized approach to providing informational needs, market intermediation, and qualified technical training for small firms.
On a micro level, it has the role of identifying those firms who do not embody the themes identified in this report, and better facilitating their inclusion into the necessary associations, working with local groups as much as possible.

Finally, this report considers the implication for further research on the matter of VA production in Ghana. It is significant to note that VA in and of itself is not the end goal, but a lens to view the bigger issue of production, trade, and its effect on development at the firm level and regional level in the host country.

This is important to note, because it suggests that there are some downsides to VA production that must not be overlooked. As the literature discussed, there are various caveats for a lesser-developed country attempting to newly establish itself in highly competitive and developed export markets. These caveats center mainly around the need for exporters not to become exclusively dependent on one buyer, and the importance of the necessary government support in infrastructure, financial sector development and policy environment if the exporters are to have a good chance at success (Harris-Pascal, et. al., 1998).

Harris Pascal et. al. comments that while the improved trade might enable the Africans to become excellent producers, it may be at the expense of relying on UK supermarkets and importers for marketing, product innovation, and technical assistance. This would leave them highly vulnerable to substitution by competitors from other countries. If these non-production value added activities are located largely outside Africa, it follows that the producer may only learn to carry out a narrow range of production and quality control activities which are
required to meet the customers’ needs. Therefore more general production skills are not acquired, thus limiting the scope for acquiring new competencies and sources of income. Thus, it will be important to keep these caveats in mind when conducting future research in this area. A more comprehensive, quantitative, and generalizable study of the agro-processing sector in Ghana would greatly contribute to policymakers’ abilities to better tackle the real issue at hand of production, trade, and its effect on development at the firm level.

**Final summary**

This case study has served two main purposes. One, is has briefly outlined the current state of Ghana’s pineapple industry, specifically, and agriculture, in general. And it has placed the case of Ghana within the context of the current VA debate. Two, it has identified some of the key issues that should be further studied to understand what is required to create the appropriate policy and incentive environments for VA production to grow and thrive. Appendix A detailed a part of TIRP’s program theory with respect to VA. As the diagram shows, my hypothesis was that one of the key explanations for why some firms succeed at VA and others do not is related to their respective access to capital. However, as the results have shown, there are three issues that are more key to a better understanding of successful VA production.

A review of the secondary data as well as the stakeholder interviews indicated that these three issues are, one, the firm’s ability to form advantageous
organizational arrangements and mergers; two, find innovative solutions to challenges; and, three, to gain knowledge from multiple sources. These findings thus indicate a new diagrammatical program theory (Appendix C). These results are summarized in the following:

First, use of both horizontal and vertical organizational arrangements to leverage information and resources found in other organizations was of great value to successful VA processors. This report gives three examples from the field to illustrate this theme. One is that of Farma Pine, a WB-financed pineapple conglomerate that linked 5 pineapple co-ops and 2 exporters. This firm is an example of a consolidation of enterprises—either vertically or horizontally—that reduces the time lost due to the amount of transactions necessary to complete a job. Their increased credibility with local financers has improved their access to credit, which has greatly enhanced their production capabilities. Another example of success with organization arrangements is Wienceo Company. The Dutch owner, with 30-years of experience in Ghana, routinely uses his strong relationship with European funders to meet his financing needs. Finally, the example of Athena Foods’ joint venture with a Danish juice company underscores the new market opportunities that such a relationship can bring, from international to regional, and even local.

There are two main implications of these results. One, these organizational arrangements are very important in that they establish the basis by which firms are able to learn from each other and thereby acquire information
that spurs innovation. Two, programs and policies should be designed and implemented to best take advantage of the group dynamics necessary to capitalize on such synergy.

Second is the ability to take advantage of learning from a variety of resources. Through the organizational interactions discussed above, in the context of chronic failure or extreme uncertainty, firms find ways to do something by implementing experimental ideas coupled with the constant reflection and monitoring of their results. Thus, they engage in interfirm knowledge transfer. The government has a critical role to play in facilitating these relationships. They must help the producers avoid having to rely solely on their foreign buyers to teach them how to do successful agro-export.

Three examples from the field given in the report illustrate how the GOG is meeting this need. The first is VEAPEG’s CARE-sponsored trip to Kenya to learn about charcoal cold-stores. The second is the work by foreign aid consultants invited by the GOG. Their work includes technical training and capacity building, policy analysis and reform recommendations, and the building of business linkages between Ghanaians and local, regional, and global entrepreneurial partners. The third is the promotion of business associations, like those created under TIP and TIRP.

The implication of these findings is that Gereffi’s commodity chain is importance to fully understand the nature of these linkages. However, this research goes further, indicating the increasing importance of a type of
“commodity web” that includes not only the vertical (forward and backward) linkages of the commodity chain, but also the horizontal inputs of information from international donor consultants, governmental extension agents, and industry counterparts from other countries.

Third is the novel combination of information and inputs. Multiple use of scarce resources is one example of this finding. The report gives four examples of this finding on the ground in Ghana. One is Athena Foods’ use of flavored vapors captured during the juicing process to produce a flavored water product. That product washes the pineapple pulp by-product to make a thicker, juicier, final product. In addition, Athena Foods’ work with organic pineapples is an example of how firms can take advantage of the premium garnered by niche markets.

Two, Athena Foods demonstrated innovation by finding a creative way to solve a sourcing challenge. When their plastic cups supplier ran out of inventory, they used the internet to find an alternate source in South Africa. Then they located a Ghanaian producer who had unused shipping space in his shipments from South Africa, and contracted with him to buy some of his space for a fraction of the cost to ship the cups from South Africa alone. Thus, Athena Foods simultaneously solved a sourcing challenge, enhanced their network, and saved money in the transaction.

Three, Golden Harvest’s director, Esi Nyadodui, demonstrated creativity of product presentation. She took the nuts that were arriving from the farms
broken—unable to be packed and sold as whole or half nuts—and used them in alternate products including cookies, soup paste, and mixed nut sachets.

The implication of this finding is that it brings the discussion full circle, restating the importance of networking and organizational arrangements. It says that those who are organized to have access to the most information about how to be innovative will be the ones who have success in meeting these VA challenges.

Finally, the paper concludes with a discussion of the implications for policy. It identifies four elements: one, implication of the program; two, of the policy; three, of the meaning of the findings for firms, business associations, and the state; and four, of the meaning for future research.

One, since key informants indicated that many of Ghana’s VA constraints still exist, they suggested two program modifications. First, that TIRP adopt a narrower focus to improve the effectiveness of program dollars. Second, that TIRP focus more on the facilitation and encouragement of suggested organizational arrangements, since the other two themes of novel combination of information and inputs and interfirm knowledge transfer come out of it.

Two, the key informants and I address two main policy implications suggested by the research findings. First, that import duties should not be required to be paid up front by importers once the government identifies a good they are importing to be for export promotion or support. Second, that the
government should work harder to improve provision of improved infrastructure (especially cold storage space from farm to port), and better financing options.

Three, there were three significant implications emerged for firms, business associations, and the state. First, a firm is more likely to be successful if it efficiently and creatively uses its resources by forming effective organizational arrangements that yield improved learning opportunities and encourage novel combination of information and inputs. Second, the findings say that business associations must be a key player in facilitating the commodity webs that develop to support a VA production network. Third, the state has a macro-level role to help forge marketing ties among regional buyers and then outside buyers by encouraging them to attend forums, trade meetings, and technology expos. The state also has a micro-level role of identifying those firms who do not embody the themes identified in this report, and better facilitating their inclusion into the necessary associations, working with local firms to give them access to such networks.

Four, the paper considers future steps for further research. It would certainly be helpful to conduct a more comprehensive, quantitative, and generalizable study of the agro-processing sector in Ghana. When proceeding, it is important to keep in mind that VA production is not a silver bullet that alone can bear all the competitive burdens that a developing country faces. It can, however, serve as a lens through which policymakers look at the challenges of increased international competition. Value addition can serve as just one of the
tools in a comprehensive approach to development at the national level. Thus, the goal of these further endeavors in VA production will be to help policy makers better tackle the real issue at hand: that of production, trade, and their ultimate effects on development at the firm level. This information is essential to make Ghana, and countries similar, more competitive in the increasingly globalized marketplace.

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Technical Appendices
Implementation of TIP/TIRP Program

Becomes cheaper to borrow money because there is more available

The investment environment both for local and foreign investors is more attractive.

ACCESS TO CAPITAL
- More upgrades are made to processing equipment; cold stores, etc.
- Investors initiate upgrades and joint ventures with local processors
- Exporters have more capital to reinvest in VA production.

Increase private sector access to credit

Stabilize macro situation (i.e., inflation rate, interest rate, exchange rate)

Exporters get reimbursed in 3 months versus 2 years (if at all) for the money spend on import duties for products to be exported

Improve implementation of the VAT and duty drawback policies

Goal: VA production is stimulated
Appendix B. Key informant interview topics

♦ Financial Mkts
  - Competitive RER
  - Improved access to credit
  - Increased formality (including formal financial mkt)

♦ Trade Regime
  - Improved duty and tax relief for exports
  - Streamlined procedures

♦ Productivity and Profitability
  - Farmgate prices to reflect world markets
  - Increased stability in econ enviro and higher prices (and lower costs) for ag products
  - Value-added activities more attractive than intermediation (ie: trading, smuggling, speculating, etc.)
  - Increased exports
  - Improved credibility toward meeting int’l commitments (forward contracts, etc.)
  - Meeting pressures to upgrade required by int’l buyers
  - Attraction of int’l investors and foreign buyers
  - Usufruct rights

♦ Labor
  - Rural exodus
  - Off-farm income improvement
- Improved workforce flexibility (ie: use of seasonal workers)
- Expanded use of non-family workers
- Increased OJT

♦ Organizational structure

- Increased Vertical integration
- Increased opportunities to expand in farm to market chain
- “Push-pull” capacity (ie: pushing larger export firms to pull smaller producers into exports)
  - Characteristics of successful P-P linkages
  - Characteristics and evidence of local development

♦ Transparency/Equality

- More equal playing field
- Smaller firms given a voice via public dialogues and improved business organizations

♦ Improved GOG service (extension, research, technology, weather reports, etc.)
Implementation of TIP/TIRP Program

The VA producers attempt some of the practices that might work for them, and learn what to do differently from which practices work and which do not.

Government of Ghana works to facilitate the work of business associations such as SPEG, HEG, and FAGE.

More producers become active in such groups, and begin to see benefits from such interactions.

Increased interactions with VA producer counterparts stimulates producers to think innovatively about production problems.

Producers increasingly respond successfully to production challenges with innovative solutions.

Private sector VA producers begin to monitor their counterparts’ practices.

Goal: VA production is stimulated and successfully sustained
Appendix D. List of interviewees

Mr. John Addaquay, Farma Pine Representative, TechnoServe
Mr. Nicholas Railston-Brown, Ghana Country Director, TechnoServe
Mr. Emmanuel Addison, Director, Research Planning Division, GEPC
Mr. Augustine Adongo, Chief Executive, FAGE
Mr. Ernest Adzim, Quality Assurance, Oké Bananas (VREL)
Mr. Matthew Armah, Deputy COP (Wood/Handicrafts/Garments), AMEX
Mr. Emmanuel Ahiwireng, Office Support, Sigma One Corporation-Ghana
Mr. Kingsly Ameyaw, Operations Manager, Air Ghana
Mr. Augustine Gyamfi, Executive Director, VEPEAG
Mr. Gary Kilmer, Deputy COP (Agriculture/Marketing), AMEX
Dr. Tony Mensah, Managing Director, Athena Foods
Mr. Steve Mintah, General Manager, SPEG
Ms. Esi Nyadodui, Managing Director, Golden Harvest (TEXPO)
Mr. Henri Wientjes, Managing Director, WIENCO
Appendix E. Key informant interview summaries

John Addaquay, TechnoServe, Chairman of the Farma Pine board of Pineapple growers and exporters
- Need improved import breaks for exporters
- Linkages and consolidation of coop’s helped overcome some constraints
- Add’l loan challenge is too much collateral needed (also says 2 others: Adongo, Gyamfi and Kilmer)
- Many infrastructure issues...
  - lack of cooling chain: “Ghana Fresh” does have a cooling facility at the airport, but it’s not big enough for all the pineapples there are; there is talk of building a Swiss/Dutch funded cooling facility at the Tema port (Tema Fruit Terminal), but nothing done yet
- Increased monitoring and documentation requirements mean higher costs for producers (these costs aren’t guaranteed to be returned to the producers, but they have no choice but to upgrade)...what FP actually gets paid has been reduced ~10-20%
  - reason why increase has been seen in value-added products (dried, chopped, juice)...so producers can control the price and not be a price-taker; also, seasonality of raw exports causes cash-flow issues (though is still competitive)
- Value added production challenges
  - Access to reasonably-priced capital (it’s too expensive)
  - Breaking into the market: to be credible, Ghanaian company often must be in a partnership with foreign company that is well-known
  - Increased food safety requirements: tougher standards for quality of packaging, bar coding (difficult to sell directly to the market because of lack of this capability)
  - No incentives to produce value-added products (though gov’t says it want to increase them): to import processing equipment is not duty free
- There is evidence of new markets: A S. African company is importing pineapple juice from Ghana because of its taste

Emmanuel Addison, Ghana Export Promotion Council
- Duty drawbacks a big problem: high interest and inflations leads to decapitalization
- Lack of technology (computers, data processing software, etc) a big challenge for them and producers/growers; TIP ended and several impt resources disappeared... left PCs that haven’t been updated since; dropped subscriptions to CDs and info sources
- Exporting easy...Importing hard (??): 100% of earnings can be kept in $$; bonded warehousing a plus, A2 forms dropped
More incentives now for VA production (now about 65-70% of total Ag production is VA NTEs), but the disincentive is the difficulty of finding the necessary resources (financing, technical expertise, human capacity, etc....including QUANTITY)

- EA recommends implementation of a more concerted effort by govt to say “we understand the costs and pledge to make the sacrifices to do what it takes to move firms along

Stark exporting improvements: Fresh fruit juice (pineapple, OJ)—nature of the “Sugar Loaf” and “Sweet Cayenne” pineapples very sweet and tasty (also due to good soil of country); BUT lack of ability to export extra sweet pineapples (more tasty) is due to lack of technical assistance to know how not to have it ruin before it reaches the mkt

Lack of investor interest
- If the investor strength was in Gh, interested in setting up 3 more similar size banana farms, but it’s not; two issues: (1) is there interest in bananas, and (2) are their resources available to materialize the interest (funds, land, people, technology)
- GEPC has the responsibility of making this type of info avail to potential investors

Augustine Adongo, FAGE, Work with Ag growers and exporters

- Re: implementation...Ex: problems with exporters receiving duty drawbacks/VAT/IRS refunds (instead of 3 mos, it takes 2 years at best to receive money, and not with interest)...Recommendation: work at the implementation level to truly facilitate effective policy change
- Reduced to a few regulations on paper, but try clearing goods at the port—difficult!
- Increased movements toward value added activites...ex: Blue Skies is exporting chilled sliced pineapples; Starkist’s canned tuna has improved reputation
- Resources for meeting needs: AMEX Int’l; Product association; Some help from MOFA for training and assistance; FAGE (Training); West African Sub-region COLEACP organization

Ernest Adzim, Quality Control, Oké Bananas (VREL), Banana Producer

- Learning via trips abroad to Honduras and Netherlands
  - Lessons from Ecuador: they have a passion for quality and know quality bananas; their workers not only know what to do buy why and this makes a difference
- Innovational experiments re: banana washing (bath or shower)
- Need more volume of banana production...right now, Ghana can’t even fill the export market it has access to, and isn’t anywhere near its quota req’t
**Kingsly Ameyaw**, Air Ghana Representative, Export transportation
- Gov’t needs to do more than give lip service to encouraging exports
- Constraints:
  - No coldstores: **Recommendation**: gov’t should take on the responsibility of providing cold storage space since it would help the country make more money; there’s talk of this, but no action...too much reliance on int’l money (IMF,WB) to pay for this type of thing
  - Many companies are small
  - Forecasting mkts or weather requires technology and expertise that isn’t readily available
  - Land acquisition is difficult (laborious; chieftains)
  - Bad infrastructure—roads
  - Difficult to finance—high interest
  - Not enough mkt links
- **Recommendations**: small farmers should group together; gov’t should provide central pkging services

**Nicholas Railston-Brown**, TechnoServe work with small ag Producers
- Overall pessimistic about Ghana
- Farma Pine is good P-P example: see text for detailed info
- To make a difference, the development focus must be on the enterprise involving the rural poor, not the rural poor themselves.
- Constraints of Juice producers: are only at 20% capacity due to lack of wking capital, production rate of raw products, and no storage mechanisms (neither for raw nor processed)...problem with no stores is that you must sell when everyone else is, and don’t have reserves to sell more when price is high
- VAT rebates are a nightmare to obtain
- How are upgrades achieved? variety of ways (experience, other firms, their buyers, consultants, etc.)

**Augustine Gyamfi**, Director of VEAPEG, Exporters and Growers
- One of their goals is to promote VA production
  - They also want to encourage processing and value added activities (their new objective)...when produce meets overseas markets’ quality standards they can prepare the veggies for the supermarket by doing packaging, pricing tags, bar codes, etc.
- Constraints to upgrading and int’l std compliance
  - On-farm hygiene: no money to invest; often come together to consolidate and use a larger producers facilities
  - Quality Std: no precooling or cold chain, no money for van...alternatives learned in Kenya (charcoal facility)
Exemptions of sales tax (VAT): however, you can’t get the money back...if effective, it would make packaging material cheaper and thus make Ghanaian products more competitive

Gary Kilmer, AMEX (Private Sector component implementers with working with Ag Producers and Exporters)
- Linkages: GK has seen more mergers between growers and exporters (they are increasing in Gh); Farma Pine is good example; forced by needs to meet int'l stds;
- Growing importance of international standards qualifications: many groups clamoring to meet the EU-GAP and SPS...mostly those of foreign ownership
  - Difficulties
    - lack of working capital
    - lack of training for outgrowers [soln: consolidate exporters (this has been happening...shown by an increase in the # of exports, but decrease in # of exporters); need fewer, higher quality exporters to give Ghana a good name re: quality]
    - lack of proper packhouse and cold storage facilities and chains
    - lack of discipline of workers
- Business Assoc (SPEG/HEG) have historically been (and for the most part still are) talk shops, just networks through which good ole boys can protect their good deals.
- Exporting is easy, it’s the importing that’s hard: duty drawback probs...decapitalization; pineapple guys have trouble importing boxes

Tony Mensah, Athena Foods, Pineapple juice producer/exporter
- Access to credit difficult
- Innovation is key: see “Spin-off products” and “Cost-cutting mechanisms” for examples
- Need niche mkts (like organic) to control prices
  - they are certified organic with the EU, and plans to break into the US market (taking advantage of the AGOA legislation)
  - they are doing well here; there are some organic pineapple farms in Ghana, but they aren't certified...Athena Foods is encouraging more farms to certify (this is the way to go to get increased margins)
- Re: VAT and duty drawbacks...the concept is good, because it would give a way of financing entrepreneurs (and frees up money for then)
  - Unfortunately, the implementation (exporters pay upfront, and get reimbursed later) defeats the purpose
  - TM suggests that the fees are waived upfront, and investigate 3-6 months later whether or not the imports were actually used solely for
exports OR take the money upfront, but have the gov’t pay interest afterwards on what is owed until it is paid to the exporters

• A.Foods has access to the EU market via a Joint venture with a Danish company (3.5 years as of 8/1/01)...their medium term goal is to be perceived in the EU as a source of good/dependable supply of juice concentrate (they are close to this now)

• Challenges...
  ➢ Lack of organic farmers...but A.Foods is certifying them now
  ➢ Conventional ability to purchase capital
  ➢ Must provide a strong market for farmers to assure them steady sales so they will produce a lot
  ➢ Input problems: Ex...difficulty sourcing plastic cups for “Purita” product; Ex: Lost free source of metal storage drums in which to store their asceptic bags when Lever Bros stopped importing the inputs for women’s hair gel and Nestle, lactose syrup...TM is thinking that they and the Danish company can have a drums reconditioning division for this need ,but they’d need money to buy the drums in bulk (problem is that their competitors in Thailand are getting the drums for free)

• Increase in int’l buyer interest...Yes
  ➢ Danish company was interested in Joint Venture: DAN-AIDA (Danish counterpart of USAID) helped finance this
  ➢ EU buyers
  ➢ Eastern Europe, Bulgaria, Israel, Spain
  ➢ Togo

• Constraints to upgrading:
  ➢ don’t have constant production due to lack of working capital (for this reason, too, they haven’t finished all of the building yet) and blackouts (causes a bottleneck; this even happened while I was there!); with more production they could do 6 days/wk and three shifts (planning second year expansion, and need the evaporating plant expanded, too)
  ➢ Constraints on expansions include low confidence in the market potential on the part of supplying farmers (land is not an issue for them)

Steve Mintah, Seafreight Pineapple Exporters/Growers Association
• Important for Pineapple growers to increase their volume of production thus having more shipments, and less dependence on other countries for transport
• SPEG has recently gained the ear of the govt
• Difficulties: freight rates are high compared to Cote D’Ivoire (lo volumes come from Gh); No long term credit; No strong mkting arrangement (now sales done on consignment: they ship a bunch and get paid for whatever sells)—they have no control over their mkt price, and no representation
• Constraints to expansion: small margins (need to get freight costs down which is most of the cost, production costs (labor, fertilizer, cartons) down...competitive on regional mkt, land...need cheaper money, and better
understanding between landowners and investing users; access to long-term capital; access to technology...need R&D through public/private partnership, SPEG can't do it alone; mkting (no united front); lack of cold-storage chain

• Tariffs: VAT rebates are a problem...25% of cost of production are the cartons which must be imported first; VAT rebates were supposed to be 30d return, but ends up being 6-8 mos at best; recommendation: don’t take money up front once good is determined to be for export

• Ag machinery imports (irrigation equipment, etc) a problem: should be exempt from tax duties, but not

• Another issue: return on investment...all these upgrades require costs, that may or may not be reflected in the increased money they get for their products...they don’t have a choice but to upgrade, but hope they get good ret on investment

• EU mkt image has now improved, and Gh pineapple is recognized (Ex: increase numbers of countries wanting to buy...UK and France); also there are current buyers who are requesting more (Germany, Italy, Switzerland, Belgium)

Esi Nyadodui, TechnoServe’s Golden Harvest, Cashew processor

• Involvement with TS and Golden Harvest has developed her skills and opportunities
• Dollar indexation a real business problem for her... expensive inputs, raw material prices quoted in $$ by outside companies...difficult to budget because prices are always changing

• Quality std certification is important

• Early challenges
  ➢ At first only received broken, not whole, nuts because farmers didn’t know how to harvest without breaking them...TechnoServe (TS) came in with consultants and remedied this with training
  ➢ Farmers didn’t take to the new technologies at first (sent Mrs. N a rude letter about it, but she didn’t take it personally), but TS took them to Nigeria to see the cashews being harvested, and their performance improved
  ➢ Farmers wanted cash not credit, and were uncomfortable with money wiring (didn’t understand bank transfers)

• Innovations...see “Technology and upgrading/innovations” for examples

Henri Wientjes, WIENCO, Importer and banana producer/exporter

• Overall, pessimistic about Ghana
• Says the amount of govt-level funding to encourage production and export growth is embarrassingly low
  ➢ Govt needs to take the lead in making cheap money available with strings attached to encourage performance
How is VREL expanding? With shareholder funds and European bank help BUT ideally the Gh banks should be offering interest free funds for expansion re-payable in 3 years

Currently no incentive to invest...no financial security; impending devaluation

He gets a lot of help from his "European friends", because the Gh banks can't lend to him like he needs

Not much institutional support: Why? Lack of expertise and interest; don't see importance yet...ex: under TIP, they got a quick payment for 6 mos of quote fees as a bridge payment, whereas govt would have taken 2-3 years to provide it

WB suggested 60,000 tons of banana production to charter vessel to Europe...Govt should give $10 million credit to double production and achieve this, but there is no interest

• VAT and Duty Drawbacks: terrible, and that's a shame

• Constraints to increased quantities: credit for capital; land; lack of sufficient govt policy incentives (VAT probs; no precooling facilities)