



Competitive Clusters Assessment Report

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ACRONYMS

ACT	African Coalition for Trade
AfDB	African Development Bank
AGOA	African Growth and Opportunity Act
APHIS	USDA Animal and Plant Health Inspection Service
ARC	Agricultural Research Center
ASANRA	Association of Southern African National Road Authorities
ASCCI	Association of SADC Chambers of Commerce and Industry
ATC	Agreement on Textiles and Clothing
ATRIP	African Trade and Investment Policy project
BDC	Botswana Development Corporation
BDS	Business Development Service
BECI	Botswana Export Credit Insurance Company
BEDIA	Botswana Export Development and Investment Authority
BMC	Botswana Meat Commission
BOCCIM	Botswana Confederation of Commerce, Industry and Manpower
BSO	Business Services Organization
CAWG	Customs Advisory Working Group
CCA	Corporate Council on Africa
CFA	Constituency for Africa
CLUSA	Cooperative League of the United States
CMC	Corridor Management Committee
CNFA	Citizens Network Farmers Association
COMESA	Common Market for Eastern and Southern Africa
COP	Chief of Party
CTA	Confederation of Mozambican Business Associations
CTO	Cognizant Technical Officer
DFID	UK Department for International Development

DOE	United States Department of Energy
DOL	United States Department of Labor
DOT	United States Department of Transportation
DSC	Dar es Salaam Corridor
EBA	EU Everything but Arms initiative
EU	European Union
FANR	Food, Agriculture and Natural Resources
FAO	Food and Agriculture Organization
FCFASA	Federation of Clearing and Forwarding Associations of Southern Africa
FDA	United States Food and Drug Administration
FDI	Foreign Direct Investment
FESARTA	Federation of East and Southern African Road Transport Associations
FSIS	USDA Food Safety Inspection Service
FTA	Free Trade Agreement
G&S	Grades and Standards
GDP	Gross Domestic Product
GMO	Genetically Modified Organism
GSP	Generalized System of Preferences
GTN	Global Trade and Technology Network
HACCP	Hazard Analysis Critical Control Point
IDC	Industrial Development Commission
IESC	International Executive Service Corps
IFDC	International Fertilizer Development Corporation
IFPRI	International Food Policy Research Institute
ILO	International Labor Organization
IMF	International Monetary Fund
IMPACT	Impact Assessment, Monitoring and Evaluation Activity
IPA	Investment Promotion Agency

IPPC	International Plant Protection Convention
IQC	Indefinite Quantity Contract
IR	Intermediate Result
ISA	Initiative for Southern Africa
ISO	International Organization for Standardization
IT	Information Technology
LDC	Least Developed Country
LNDC	Lesotho National Development Corporation
LOE	Level of effort
MCTI	Zambia Ministry of Commerce Trade and Industry
MFA	Multifiber Arrangement
MIS	Management Information System
MOU	Memorandum of Understanding
MUSCCO	Malawi Union of Savings and Credit Co-operatives
NAFU	National African Farmers Union
NASFAM	Malawi National Association of Smallholder Farmers
NDC	Tanzania National Development Corporation
NEPAD	New Partnership for Africa's Development
NGO	Non-governmental Organization
NTB	Non-tariff Trade Barriers
NRM	Natural Resource Management
OECD	Organization for Economic Co-operation and Development
OPIC	United States Overseas Private Investment Corporation
PESA	Private Enterprise Support Activities
PIP	Pesticide Initiative Program
PMAESA	Port Management Association of Eastern and Southern Africa
PMP	Performance Monitoring Plan

RAPID	Regional Activity to Promote Integration through Dialogue and Policy Implementation
RCSA	Regional Center for Southern Africa
SAB	South Africa Brewery
SACOB	South African Chamber of Business
SACU	Southern African Customs Union
SADC	Southern African Development Community
SAEDF	Southern Africa Enterprise and Development Fund
SAEN	Southern African Enterprise Network
SAIBL	Southern African International Business Linkages
SANAS	South African National Accreditation System
SARA	Southern African Railway Association
SARS	South African Revenue Service
SATIEC	South African Textile Industry Export Council
SATRN	Southern African Trade Research Network
SCCC	SADC Sub-committee on Customs Cooperation
SCD	SADC Customs Document
SIDO	Small Industries Development Organization
SIPA	Swaziland Investment Promotion Authority
SME	Small and Medium Enterprises
SO	Strategic Objective
SOW	Statement of Work
SPS	Sanitary and Phytosanitary
SSATP	World Bank Sub-Saharan Africa Transport Policy Program
TA	Technical Assistance
TAZARA	Tanzania Zambia Railway Authority
TBT	Technical Barriers to Trade
TCCIA	Tanzanian Chambers of Commerce, Industry and Agriculture
TDA	United States Trade and Development Administration
TKC	Trans-Kalahari Corridor
THA	Tanzania Harbors Authority

TNS	Techno Serve
TO	Task Order
TOR	Terms of Reference
TRADE	Trade for African Development and Enterprise
TRIMS	Trade Related Investment Measures
TRIPS	Trade Related Aspects of Intellectual Property
UNCTAD	United Nations Conference on Trade and Development
USAID	United States Agency for International Development
USA-ITA	United States Association of Importers of Textiles and Apparel
USDA	United States Department of Agriculture
USDOC	United States Department of Commerce
USTR	Office of the United States Trade Representative
VAT	Value Added Tax
WBCG	Walvis Bay Corridor Group
WCO	World Customs Organization
WFP	World Food Program
WTO	World Trade Organization
ZAMTIE	Zambia Trade and Investment Enhancement project
ZATAC	Zambia Agribusiness Technical Assistance Center
ZCSMBA	Zambia Chamber of Small and Medium Business Association
ZEGA	Zambia Export Growers' Association
ZMA	Zambia Manufacturers' Association
ZRA	Zambia Revenue Authority

Executive Summary

Introduction

The Southern Africa Global Competitiveness Hub is refocusing and realigning its core work to achieve the strategic result of building export competitiveness in the region. With the approval of the Regional Center for Southern Africa (RCSA), Botswana, Chemonics International fielded a four-person team from June 16 to August 22, 2003, to conduct an assessment of key constraints to and opportunities for trade development and improved competitiveness. The assessment team visited nine of the 14 countries covered by the Botswana-based Hub: Botswana, Zambia, Mozambique, Tanzania, Namibia, Malawi, South Africa, Lesotho, and Swaziland.

The assessment team evaluated the supply chains and business clusters for three key sectors that have export potential: agriculture (particularly horticulture and grain), livestock/leather, and textiles/garments. Collectively, the team filtered its assessment through this question: How can the Hub refocus and realign its core work to achieve the strategic result of building export competitiveness in the region that leads to the overall goal of increasing trade and investment in the region? To complete its work, the assessment team conducted an examination by country, region and sector. The team identified key constraints to and opportunities for trade development and growth. In addition, the team examined cross cutting constraints regarding how the private sector can improve competitiveness. Finally, the team provided recommendations regarding potential interventions in terms of the Hub's strategic role through the lens of these findings.

The team was comprised of: Karen Potter, private sector capacity development; Musa Rubin, textiles and garments; Jerry Turnbull, livestock; and David Yurosek, agriculture (including horticultural and grain crops).

Cluster Competitiveness

Building competitiveness requires focused and specific attention on certain sectors and related cluster business activities. The assessment team found that the horticulture and textile clusters had the most potential for Hub targeted attention and intervention, from both a short term and long term perspective. While a long-term effort will be required to build competitiveness in the supply chains and develop regional vertical integration, it is also possible to achieve short-term solutions (one to two year time frame) for increasing the value of exports. Livestock and leather products represents an important cluster, however, unlike horticulture and textiles, substantial involvement will be required to build the foundation for achieving results in the livestock/leather cluster. It is unlikely that short term solutions can be achieved that will lead to increased export results.

Finally, the Hub should make a major effort to build its analytical agenda around key cluster areas. This is a serious endeavor and should also be viewed as an on-going effort, consistent with the Southern Africa Competitiveness Hub mandate. Only with a substantial body of empirical data and analytical capability that is continually updated, will the Hub and its stakeholders be in a position to address the longer term objectives and desired results.

Cross-cutting Issues

The assessment team identified specific cross-cutting constraint areas that are common to all sector clusters, and are present in each country to varying degrees. These constraints and recommended solutions include:

- Lack of effective communication within clusters, which impedes technology adoption, sourcing and cooperation between relevant players in the clusters
 - *Solution:* The Hub should address increased communication at the “cluster level” and encourage private sector participation in information systems through cost-share arrangements.
- Lack of effective marketing information systems and knowledge of external markets, which impedes market competitiveness and business expansion, particularly for SMEs
 - *Solution:* The Hub should develop stronger linkages with marketing and commodity groups/associations, newsletters, Universities, and State development agencies based in the U.S. and take the lead in developing a region-wide market-based information system.
- Inability of SMEs to effectively identify and develop their competitive advantage and participate in the supply chains because of economies of scale
 - *Solution:* The Hub should develop a focused program to provide basic business development services to the SME sector, encourage linkages between SMEs and larger agribusinesses and firms (both regionally and internationally) to promote investment and provide expertise, and foster an enabling environment by supporting public/private partnerships.
- The need to systematically address basic business acumen and skill development in order to compete in both regional and global markets
 - *Solution:* The Hub should develop formal as well as experiential/mentoring training modules for basic skills that are important in selected clusters (e.g. skill sets for services, manufacturing and processing to packaging and marketing).
- Access to finance, particularly for SMEs
 - *Solution:* The Hub, along with RCSA should begin a dialogue with commercial banks to educate them on Hub initiatives, to determine appropriate interventions, such as DCA and or others. In addition, the Hub should form strategic partnerships with other donor agencies and the private sector.

- The need to give continued attention to reducing transaction costs associated with infrastructure, i.e. facilitating transportation corridors, customs harmonization, utilization of information technology and affordable energy.
 - *Solution:* The Hub should continue ongoing transport corridor and customs harmonization work while extending this work to specifically target the horticulture and textile sectors. The Hub should also examine ways to reduce air transport costs in the region, to the U.S. and the EU in addition utilizing alternate regional ports.

Strategic Partnerships for Building Private Sector Capacity

As a regionally focused entity, the Hub can function as an agent of change affecting business, associations, and government in the region. To do this job well, however, the Hub needs to have strong technical expertise, augmented by leveraging strategic alliances to identify and solve problems in selected clusters. It is essential to build strategic partnerships with indigenous institutions and private sector organizations, other donors and U.S. government agencies in order to leverage resources that enhance technology adoption, strengthen institutional capacity and relationships and creates a transparent playing field within the region for the private sector to compete more effectively in regional and global markets.

Giving more attention to regional trading relationships and the strategic partnerships involved will help promote greater regional cooperation between and build constituencies in clusters. This, in turn, will serve to build a much stronger regional platform for improving efficiencies and harmonization of critical issues and advance the competitiveness aspirations of the private sector in the broader global market place.

The Hub should design interventions that help the region create its own vision and image of its competitive advantage. By focusing attention on private sector capacity, greater specificity and priority can be given to public sector reform, particularly the overall enabling environment that must be addressed and should be demand-driven by the private sector's requirements to increase their competitiveness, which will lead to economic expansion and trade.

There is a great need for development of simplified regulations and enforcement that remove the barriers currently preventing business entry, growth and advancement. In summary, this plan calls for:

- Creating forums in which donors, bilateral Missions and private sector organizations can review private sector and cluster issues including improving the enabling environment, trade and labor, trade and the environment, and financial sector constraints.
- Working with RCSA, develop operational coordination with DFID and the EU because they have or are beginning significant initiatives in trade development.
- Developing strategic partnerships with South African institutions, commercial banks, and/or other organizations with the objective of leveraging technical capacity and

technology transfer, trade linkages between SME's and larger firms, and have probability of attracting investment into SADC countries with respect to clusters development.

- Identifying pro-export associations in each country to act as information and outreach conduits.
- Providing demand-driven business support services at the SME level to facilitate trade development, including: business skills training in core competencies (i.e. business planning assistance, managerial/organizational structure, accounting, product/market development, etc.), identification/linkage to affordable financial instruments, access to usable and current market information, and business/market linkages to the supply chain.

Conclusion

To lead this effort, and, using this assessment report as a guide, the Hub needs to provide a strong and specialized cadre of technical expertise to carry out this mandate. Using the assessment and by building on previous work, the final year of work should focus on strategic tasks that represent important building blocks to enhance competitiveness in targeted clusters, recognizing the longer-term nature that will be required for building enduring competitiveness. In this context, the Hub should organize appropriately around key task areas and strive to integrate activities in order to create greater synergy. The assessment provides a compelling argument for the long-term nature of building competitiveness in the region. Moreover, building constituencies and strategic partnerships is part and parcel to the development job and ultimate sustainability. Thus, while the final work plan and results framework will form the basis for implementing clear and targeted tasks through September 30, 2004, it is important that both the Hub and RCSA have a common long-term vision in order to maintain continuity and consistency in approach beyond 2004.

SECTION I

Agriculture Sector

Introduction

The importance of agriculture in Southern Africa cannot be overstated, as approximately two-thirds of the labor force depends on this sector for subsistence. Malawi, Tanzania and Mozambique are most dependent on agriculture, with 33, 58, and 42 percent of GNP, respectively, derived from this sector. Less than five percent of all land in the region is classified as arable, and yet approximately 45 percent is under cultivation. (FAOSTAT) As a result, farmers in Southern Africa face difficulties because many are involved in subsistence farming in areas not well suited for achieving high productivity. The main food crops grown in the region are wheat, rice millet, sorghum, pulses, root crops, and sugar. High value commodities with greater potential for value added export potential include tobacco, horticultural commodities (cut flowers, fresh fruits and vegetables) and processed/package horticulture products as well as coffee and tea.

This summary report touches on the main findings and recommendations of the assessment as a guide to increase trade and competitiveness in the region. Volume Two contains a complete analysis of the sector in the region as a whole, followed by an analysis of each country's competitiveness of horticultural and grain crops.

A. Success Through the Supply Chain

Figure 1 represents an ideal supply chain operating in the agriculture sector, applying to both horticulture and grain. The clear boxes in the schematic outline the proper flow of goods and services through the various links, from production and use of natural resources to the consumer, along with outside and contributing/constraining forces in the shaded boxes. The supply chain creates vertical integration when operating efficiently. The outside influences should enhance overall supply chain competitiveness from production toward global competitiveness, or they can constrain and limit potential, or affect the chain neutrally.

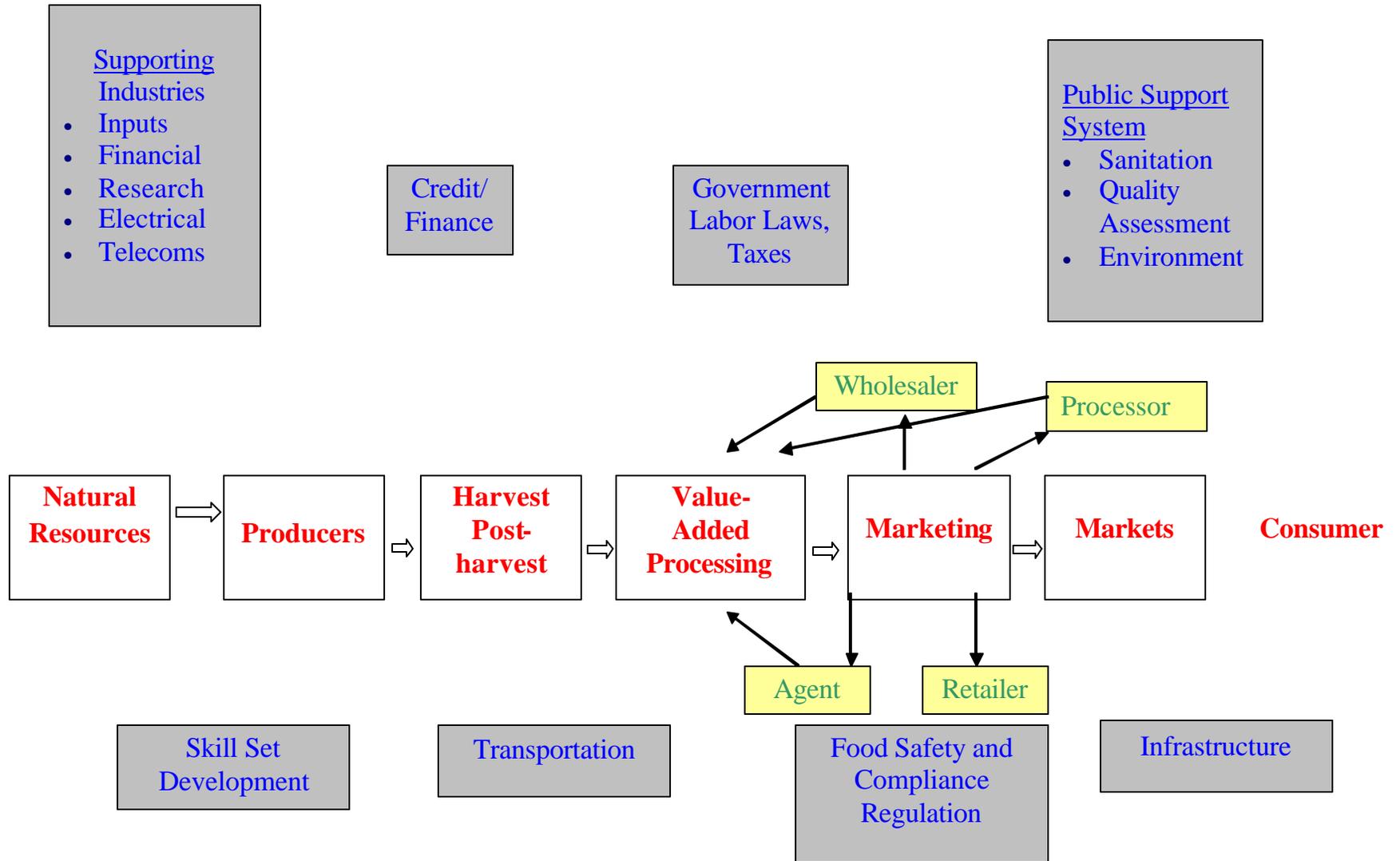
The supply chain include various players in agro-processing; from farmers to large scale processors who add value and prepare products for human consumption. Additionally, there are other organizations and institutions that need to train workers and managers, catalog market information, provide finance, promote linkages between larger agribusiness and SMEs, mitigate transport and customs concerns, and communicate effective plans and results to key players. The more advanced the process, the more sophisticated it becomes and hence cost becomes a key issue. Larger firms can normally absorb such costs particularly when they can take advantage of improvements in competitiveness factors, however, for small producers costs for investing in new technology, training can often be difficult and as a result, they are often eliminated from participating in the chain.

B. Utilizing Current, Successful Models

Southern African smallholder farmers create smaller, localized supply chains or act directly as consumers in many cases. Serious constraints, such as access to affordable finance can be prohibitive. With existing high interest rates, the producer or processor is unable to operate

his required link in the chain, and as a result, competition and quality falter, transaction costs rise for the whole sector/cluster, and ultimately the product does not reach its potential because economies of scale are not achieved to attract the market. Fortunately, Southern Africa's horticulture and grain sectors are reasonably robust enough to create competitive, successful vertical integration of the chain.

Figure 1.



South Africa has many well-experience institutional assets, such as finance, research and technology. This has enabled agriculture in South Africa to flourish. It is of interest and also to the benefit of South African agribusiness and its institutions to partner with companies in the region in order increase their market share. Thus, it is in their vested interest to supply product research and investment to other countries in the region.

The experience of South Africa can be used as a springboard to early successes. For example, if the Hub were to facilitate strategic partnerships between South African exporters and suppliers from other countries that enhanced regional, vertically integrated supply to market competitiveness, a win-win relationship would be formed.. The exporter could provide the market information and possibly investment for companies in Mozambique, Tanzania and Zambia, where natural resources provide a competitive advantage in production and some aspects of processing.

C. Local Skills Sets

One of the major constraints in the agriculture sector is the lack of skills and a concerted effort by intermediaries to provide training for the local population in horticulture, grain production practices and management. As a result, many private companies hire expatriates to fill management positions and many companies rely on unskilled labor. Programs such as NASCENT, ZEGA and TNS have been successful in creating training programs for the local workers. These programs utilize proven training techniques and tailor them for specific and innovative training design e.g. incorporating test farm plots or processing plants where research and training can take place and information can be exchanged. Such models could be regionalized. The Hub could facilitate the ZEGA Training Trust to negotiate with other donors to fund the extension of the project.

To ensure that smallholder farmers gain training as well, the success of the NASFAM/NASCENT project in Malawi could be expanded to create a broader population base for its course curricula. Linkages with small growers can be also created by utilizing successful models that have been enacted by organizations such as IDC in South Africa, Freshmark of South Africa, and Serengeti Fresh of Tanzania. By grouping small growers together, a “consolidator” concept can be created, within which the consolidator provides technical expertise and equipment, and even necessary inputs on a larger scale, to reduce the price of the inputs. Improving skill sets mitigates a major, cross-cutting constraint to the supply chain, lowering transaction costs, improving quality for the producers, and increasing competitiveness.

D. Infrastructure

The infrastructure in the region, ranging from roads and ports to processing facilities and cold storage, is inadequate, and South Africa alone possesses adequate cold storage capabilities. Without proper production infrastructure, and especially cold storage in the supply chain, horticultural products will not be of acceptable quality to enter the market. It is estimated that 50% of all horticultural crops harvested in Tanzania are lost due to spoilage, because the cold chain is not maintained.

Inadequate roads create higher transaction costs and can destroy products as they are transported from the field to the processing facility or to the purchaser. As a result, the finished products are often not price competitive for the market. For example, maize from northern Mozambique cannot be transported to the southern provinces price-effectively due to high transportation costs, lack of infrastructure, and inefficient transport companies. As a result, South Africa and other nations export to southern Mozambique rather than domestic producers. (FAO Report, 2002).

E. Transport

Based on the Hub's successful facilitation of transport in the region, the team recommends the creation of an "Air Bridge" for vegetable and flower producers in Tanzania, Zambia, Malawi, and Mozambique. The establishment of such an instrument would facilitate the supply chain and assuage the following growing concerns:

- Higher airfreight costs from Zambia and Tanzania.
- Malawi's non-competitive status in the flower industry.
- Difficulties of transporting grain products from smallholder farms in northern Mozambique to the food insecure population in the south.

Utilizing its contacts with numerous airfreight companies, and building upon its success in creating an efficient flow of products in the Trans-Kalahari Corridor, the Hub is in a position to take the lead on this activity and create additional corridors to stimulate all sectors. Utilizing this method, the Hub could negotiate with new privatized owners of ports in Walvis Bay, Maputo, Beira, Nacala, and Dar es Salaam for access to the lucrative Durban market, for example. Tanzania and Mozambique are located closer to the major Asian markets than South Africa, reducing sea freight costs to these markets. Furthermore, by utilizing the Suez Canal, these two countries can export products to the E.U. cost effectively.

F. Finance

In most of Southern Africa, interest rates are so high that producers cannot gain access to the credit market. Interest rates in Malawi are over 50 percent, and in Zambia and Mozambique they are near 40 percent. High interest rates affect the entire supply chain, from production through processing, as production agriculture does not have the margin of profit to pay these rates and producers cannot obtain working capital to purchase potentially beneficial inputs.

The lack of working credit capital is a primary constraint that affects smallholder farmers in the supply chain. They cannot borrow funds from financial institutions due to high interest rates or lack of collateral, and as a result, are using three and four year old seed, not applying inputs such as fertilizer or pesticides. This situation severely limits productivity and decreases yield and quality. There is an opportunity for the Hub to facilitate finance by working with other donors such as IDC, World Bank, New Farmers, German Agency for Technical Cooperation (GTZ), EDB, and DANIDA, financial institutions (commercial banks) and possibly the USAID Development Credit Authority to improve access to finance.¹

¹ Ms. Karen Potter in her assessment described and provided detail on the various international donors that are in the region.

Capital for commercial agricultural operations is lacking as well. As an example, in an interview in Blantyre, Malawi, Mrs. Doran stated that she could not borrow capital for either working capital or long term financing to purchase new equipment. Without either of these credit facilities, she and her firm were losing money due to old cultivars in tea and coffee, and were forced to reduce operations and lay off workers from the 500 hectares, 500 person operation.²

Export companies that are reimbursed in hard currency are able in most countries to borrow at lower rates than companies that trade intra-regionally or domestically. For example, the interest rates in Zambia were at 7 percent to 13 percent for hard currency loans, with loans repaid in hard currency. Even with the lower rates, there are still significant difficulties in accessing credit.³

Funding is required for working capital, but also for much needed infrastructure now lacking in Tanzania, Mozambique and Zambia. The team recommends that in addressing vertical integration, the Hub also give attention to access to finance. As an example, the PESA project in Tanzania is currently providing technical assistance to smallholder farmers to grow citrus. Additional funds could be used to purchase infrastructure to complete the supply chain up through processing by linking marketing agents such as Capespan or Sunpride to market the crop. Improvements in trade and employment would be monitored using an M&E system that records a baseline assessment of Tanzania, Mozambique and Zambia.

An additional possibility is for the Hub to act as a facilitator to increase awareness of loan opportunities offered by donors. The ALEB project in Cairo, Egypt created a powerful model under which several million dollars were made available for new equipment and/or production loans. It is recommended that the Hub research this project, to determine whether it is applicable to Southern Africa. In addition, the DCA should be considered as a vehicle to enhance commercial bank lending.

G. Market Information

Market information, including analyses of crop shortages and surpluses, rainfall and weather forecasting, is critical to planning and sales projections. With such information, producers can plant and market crops in a much more targeted manner. As there is no regional market information database at present, the creation of such a tool would be extremely beneficial to the agriculture sector, at all levels of the chain. The Hub is in an excellent position to create and facilitate development of a regional market information base, or to contract it out to another vendor, with each participant paying a subscription fee.

A website would be an efficient, self-sustaining model for initiating a major portion of this effort, particularly with regard to maintaining commodity production and export trends. Once crops are identified and logged into a database, market research could also be added based on markets in the region and in the United States, Europe, Asia, and elsewhere in Africa. The Hub should work closely with the Foreign Agricultural Service (FAS) as a strategic partner in the region. Furthermore, strategic partnerships or linkages, such as those established between Citrum

² Interview with Mrs. Doran on July 23, 2003

³ Based on interviews with numerous individuals in the countries visited

with Capespan, can increase market share, and market tours could even link producers with customers in respective markets.

H. SME Participation in the Supply Chain

SMEs involvement in regional, vertically integrated supply chains are limited, but they are critical to the optimization of the chain in terms of trade and employment creation. The Hub could link projects such as PESA with donors or private sector exporters from South Africa to markets in the region and globally.

As described earlier, the “consolidator” concept could be utilized, with the Hub facilitating the formation of consolidators, through specialized technical assistance. Several successful models of this concept exist, and these could be adapted to replicate vertical integration of the supply chain, create trade and employment and wealth for the smallholder producers. These include Agriflora, Freshmark and York Farms in Zambia, and Serengeti Fresh, METL, Darsh Industries, Freshmark, and Gomba Farms in Tanzania. As well, Mozambique has Capespan with Citrum, MATAL, and Techno Serve’s technical assistance to other consolidators.

Freshmark in Namibia offers the Hub a great opportunity for expansion. The company is the produce purchasing arm of Shoprite. In discussions with key Freshmark representatives, including CEO Dr. Van Deuometer, it was clear that Freshmark would purchase products for transport back to South Africa and to other countries if the quality was of acceptable standard. Currently, transport trucks are empty on backhauls to South Africa. If they could backhaul packaged horticultural products, produced in Southern Africa, Freshmark and Shoprite, and Hub countries, would gain a financial advantage.

I. Agro-Processing to Integrate the Supply Chain

There is untapped potential in Southern Africa in the agro-processing area of the supply chain. For example, Tanzania exports 90% of its raw cashew nuts to India, which roasts and packages the product at a much higher value to sell on the global market. Tanzania also exports sunflower seeds to India and South Africa, where agro-processors turn the seeds into vegetable oil, which they export back to Tanzania. If the products could be processed in the country of origin, there would be added value in the supply chain and higher returns to producers in those countries.

Basic agro-processing capacity exists in Zambia (Agriflora, York Farms), Mozambique (Citrum, JFS, MATAL), Malawi (SABLE) and Tanzania (Gomba Farms, Serengeti Fresh), but there is not the value added in the supply chain that could be realized by further processing. Freezing of vegetables from Tanzania and Zambia could add value in the supply chain for these producers, creating further returns to the producers. As an example, MATAL exports raw cobra flesh to India and in India the agro-processors produce forty-five products from the cobra flesh.⁴ Instituting such possibilities in Southern Africa would greatly enhance the supply chain.

J. Communications

⁴ Interview with Mr. Juan Veidal on July 2, 2003

Despite difficulties with the regional communications infrastructure, there are simple solutions available to increase the Hub's awareness of accomplishments in the private sector and what can be done to mitigate constraints and create efficiencies in the supply chain. The Hub should provide the expertise and networking necessary to facilitate and create awareness of all donor activities throughout the region, provide information on associations noted in this report, and other information as noted for marketing. To facilitate communication, the assessment team recommends that the Hub could facilitate creation of a regional private sector committee, involving in each country, comprised of individuals from the horticulture and grain sector, who would attend periodic meetings to discuss the cross-cutting issues in vertical integration as noted in this assessment. These meetings would rotate from one country to another, with a larger, more comprehensive meeting at the Hub at least once during the next year.

K. SPS

Technical expertise that provides regional capacity is fundamental to addressing many of the SPS and food safety constraints the sector currently faces. In particular, technical assistance is required to ensure the preservation of both cultural practices and food safety requirements. In this regard, an important regional body, the Department of Biotechnology and Food Technology of Technikon Pretoria could be utilized to provide assistance to specific targets and general training in various countries and companies in food safety and quality.

K1. EUREPGAP, SPS, APHIS and Access to Certification

In conjunction with EUREPGAP, the United States has SPS regulations that are administered through the USDA by APHIS. These regulations include PRAs, which call for an evaluation of insects and diseases in the countries of origin of fresh horticultural products. The approval of PRAs and certification by APHIS to enable horticultural products to be exported to the United States can take more than two years. All countries seeking to eventually export fresh horticultural products to the United States require the proper technical assistance to be able to meet these requirements.

Many producers and exporters postulate that EUREPGAP and the PRAs are a form of NTBs, which preclude the SADC countries from exporting to the United States and EU (Tsikata, 1999). Regardless, it is mandatory for agribusinesses in the SADC region to gain certification under these regulations to gain access to the two largest global markets.

K2. Access and Certification for Namibia and Tanzania

The SPS issue needs to be addressed specifically in Namibia and in Tanzania. The potential for Namibia in the grape market, for instance, is significant, and it is estimated that if Namibia were to open its market to grapes, \$60 million in hard currency would be collected within two years, and jobs would be created for 5,000 people. Dates and other tree fruit could also gain certification.

The assessment team recommends the Hub coordinate with the EU to provide short term consultants to provide EUREPGAP training and assistance for certification, with specific focus on Zambia, Tanzania, Malawi, and Mozambique.

The Hub could provide technical assistance for two private sector projects underway in Tanzania: the METL Corporation and AZAM present possibly lucrative deals and entry into global markets. Technical assistance, as much as training and comprehensive databases, improves integration of the supply chain in the agriculture sector.

SECTION II

Livestock Sector

Introduction

Changes in the way people in more developed countries purchase food have had tremendous impact on the requirements for quality assurance in the supply chain of livestock in Southern Africa, and worldwide. In addition, the potential for animal byproducts such as hides and skins to supply the automobile, garment and footwear industries is significant and important for a number of countries in Southern Africa. Underutilized byproducts represent a market within themselves. As an example, South Africa's automobile industry utilizes the top 2 mm of a hide, while discarding the rest, which could potentially be used in the manufacture of footwear and other leather products with the AGOA advantage.

In addition to the specific information discussed in this section of the report, the assessment team made the following general observations of the livestock/animal protein sector:

- An outline of specific industry requirements, such as licenses, taxes and the various steps necessary for conducting business in each country would serve as a quick reference guide to increase competition. A potential investor could then identify constraints, competitors or an open market for advance.
- Data from each country on necessary economic and industry strategies will allow for stronger economic analysis and comparisons.
- Overall, byproducts and waste products from industry are underutilized, including brewing, milling, sugar and food grain, which offer opportunities to livestock.

A. Success Through the Supply Chain

The livestock supply chain operates in a complex and dynamic setting with interrelated political, economic, social and technological factors. The following presents a brief overview of each sub-sector in this chain, as well as a discussion of food safety.

Beef

The three countries with the most advanced international supply chains in the region are Namibia, Botswana and South Africa. It is important to note, however, that Zambia may actually have a more integrated industry, and is at the point where greater emphasis on incorporation of SMEs is the next logical step. Zambia is seeking to enter the market with innovative products, and export trade may be possible if a suitable market can be identified and transport issues are overcome.

Tanzania, Mozambique and Malawi lack the infrastructure necessary to be major players in this sector at this time. Tanzania and Mozambique have limited slaughter facilities and cold storage capacity, and Tanzania appears to have no food safety structure. With excellent ports in both

Tanzania and Mozambique, and functional slaughter facilities in Malawi, however, this situation should change.

Poultry

Poultry operations in South Africa are further advanced and developed than those in Malawi, Tanzania, Zambia, and Botswana, although Botswana with large commercial operations and investment in a smallholder poultry program, and could well become a strategic outlet for product. The poultry industry is well suited for the increased participation of small and medium enterprises as well. In general, the eastern region of Southern Africa is best suited for poultry expansion, as that is where most of the natural assets are located. Furthermore, there has been an investment in the sector by major corporations and financial institutions such as IFC.

Hides and Skins

It is difficult to determine the flow of hides and skins across Southern Africa. The industry is extremely fragmented, although there has been an effort to improve by the Eastern and Southern Leather Association, partially funded by the UN Industrial Development Organization (UNIDO) and CDC. As a result of the immediate benefits that investment in this sector would bring to the region, attention needs to be given to capturing its value. Interestingly, there are tanning facilities in Malawi, which has the fewest number of animals, while Tanzania has the largest animal populations and yet lacks infrastructure.

Dairy

The assessment team recommends the expansion of dairy projects in Malawi, Tanzania and Zambia. These countries possess large processing capabilities for adding value, and the Hub could work to coordinate Land O'Lakes programs with these efforts as well. In addition, there is a link with the leather program, as discussed in Volume Two at length. Botswana and Namibia have expressed an interest in expanding dairy production facilities as well, although they face water and feed shortages in certain regions.

Food Safety

A critical overarching issue affecting Southern Africa is food safety control, and managing the risk of unsafe food is a prerequisite to business survival in the livestock sector (Rabobank, 2001). In developed countries, governments require firms to implement food safety programs to reduce the chance of food infection or contamination, and food retailers require that these plans be in place and depend upon processors and producers to provide a safe product. As governments and distributors have different requirements, these programs can be utilized to intimidate people from exporting to a certain country and become non-tariff trade barriers.

HACCP, SPS, GMP, GAP, traceability and ISO certification are critical for importing into developed countries, and the Hub should serve as a liaison with accredited certifying bodies, and ensure that governments understand all underlying regulations surrounding certification, not just SPS.

B. The Livestock Value Chain

The recent trend toward more vertical integration, with fewer but larger suppliers, and demand-driven changes in the livestock supply chain, have resulted in a challenging environment in which businesses seek to maintain competitive advantage. Retailers are also experiencing changes in how food is distributed, with advances in information technology to distribution systems and inventory control. An additional factor that must be considered is how the supermarket revolution (Witherspoon, 2003) is affecting food-purchasing patterns in Africa.

The most important considerations in each country's supply chain are as follows:

- Logistics
- Financing
- Trade
- Production and processing
- Food safety
- Feed-grain, natural resource distribution, animal/product transport and distribution

Using this information, various organizations will be able to understand the problems and determine ways to deal with them. Sectors can be further categorized to determine the development and maturity level of the regional and national industry, using the following factors:

- Demand conditions (e.g. income, market size, cultural tastes, retail development)
- Production conditions/economic inputs (e.g. labor, technology, input costs, climate)
- Government policy, regulation and investment (e.g. health and safety regulations, tariffs, subsidies, infrastructure development)
- Development of supporting/related industries (e.g. feed grain industry, forage availability, transport, finance, biotechnology and veterinary medicine)
- Corporate (enterprise) strategy and market structure (e.g. size and number of competitors)

Volume Two of this report provides a detailed discussion of the supply chain models for the sub-sectors as follows: beef, dairy, poultry and leather, with the understanding that the beef, small stock and dairy industries all feed the leather industry. As variations of the supply chain exist, the chains and countries will be referred to as advanced, intermediary, or simple. The amount of data collected during this assessment is extensive. Annex C contains tables that summarize the information reviewed, with further review suggested in some areas.

C. Communication

The Hub should establish liaison and strategic partnerships with industry leaders and the cluster of companies within the supply chain, which will give the Hub a strong position to open dialogue between stakeholders. The end result of this dialogue will be an increase in the flow of information between NGOs, donors, finance institutions, associations, companies, and educational facilities.

One of the first tasks is to coordinate and maintain a list of stakeholders involved in the chain, to include a database of information about each member. Communication must be cross-cutting with other commodity groups. For example, waste products from the brewing, milling, textile and sugar industry have tremendous value to the livestock industry.

D. Market Information

The team recommends that the Hub take the lead in developing a regional livestock database, funded by private industry. This site, which should be linked to the Hub website, would be developed with producer input, and contain critical market information that responds to commercial needs. This will lead to a better understanding of the market, informed decision making, higher profits for producers and traders, and lower prices for consumers. In effect, the result would increase trade-based food security, by providing commercially relevant and timely information to promote cross border trade. As there are specific guidelines and operating formats for this function, the SAMIC site from South Africa is a good starting point.

Diffusion of market information across the region will contribute to the flow of information on agricultural products, permitting better distribution of foodstuffs and contributing to increased food security. Access to market information can ensure the participation of smallholder agricultural producers, which is vital to spur agricultural growth and reduce poverty.

E. SME Participation in the Supply Chain

The Hub should facilitate the involvement of various supply chain businesses and business service organizations. Information needs to be conveyed between the various supply chain members, cluster members and other SME BDS providers, and ensure that information flows between the various players. Information regarding food safety, inspection and certification requirements, animal identification, veterinarian services and supplies, building contractors, electrical contractors, water service suppliers and contracts, legal services and financial services.

F. Local Skills Sets

The Hub should facilitate both identification and implementation of a program to address business skills necessary for SMEs to function in the supply chain. Commodity associations in the region and in each country could network on a regional basis and with the Hub to implement a program to improve business skills. Training models for livestock training programs are in place in Namibia, Zambia and South Africa (TAG, DANIDA, Namibia Meat Board, Namibia Agronomic Union, SAMIC and NEPRO). These should be evaluated and could also information regarding these programs could be collected and distributed by the Hub to SMES and associations who have potential to be involved in supply to market chains in each country. The Hub could provide technical oversight, curriculum and input as needed, and periodic training workshop to increase the skills sets of various groups.

The Hub could assist in the development of a protocol for HACCP, GMP and GAP, in conjunction with officials and experts in South Africa, Namibia and Botswana. The long-term goal of this effort would be to get the commodity associations to provide training where required. SAMIC in South Africa has available regional expertise that could be utilized.

G. Finance

Access to affordable finance is a key problem. If the Hub is to become more involved in facilitating access to finance, the effort should be done in coordination with efforts to address market information system.

H. Transport

The Hub could build upon its current activities and networks in transport to facilitate dialogue for identifying specific transport corridors for the livestock chain. Experience at the Hub clearly show that dialogue between the private sector and the public sector about transportation requirements will influence improvements in transport infrastructure. For example, the Hub must keep on top of issues such as the recent change in transportation times for animals sold to the EUROPE., which could actually become a non-tariff trade barrier.

I. Global Leather Value Chain

The Hub could facilitate the development of a regional leather value chain linked to global markets, by working with the CDE Leather Program for Eastern and Southern Africa and the three main development partners, CDE, UNIDO and the International Trade Center (ITC). Ideally, this would involve organizing and creating a local chapter in each country focused on maximizing economic returns of existing and underutilized assets. Each chapter would be run by local experts, working to link small producers to larger firms and consolidators, and identify slaughter facilities, tanneries and other cluster related business ventures throughout the various countries that could achieve globally accepted standards for meat processing and leather tanning. Furthermore, specific market research needs to be conducted to determine who and where the main customers are, demand, the terms of contracts, issues related to shipping, and the relative profit margins.

J. Leather Sector

The leather sector has specific entry points to quickly facilitate competitiveness and trade. These include:

1. Improve the collection of hides and skins.
2. Improve the quality of hides and skins in targeted areas.
3. Provide technical assistance to private industries.
4. Establish national leather associations and a regional general council.
5. Provide training for specific skill sets
6. Identify donor and/or other investment resources available to the industry and develop a schedule of obtainable goals.
7. Identify related cluster business activities in support of the sector trade.
8. With regard to associations that promote local cooperation:
 - a. Increase and refine the delivery of appropriate producer services to effectively lower the costs of local firms.
 - b. Articulate concerns of the cluster to the state in a more effective manner.

- c. Identify and promote mechanisms for appropriate regulation to strategically assist the cluster.
- d. Search ways and means to play a more active role in providing effective coordination within the cluster and with agents external to the cluster.

In sum, the specific factors that must be taken into account for improving competitiveness include:

- The quality of hides and skins
- Physical infrastructure and services
- Attractiveness to foreign investment
- Technological development, productivity and workmanship
- Facilities including BDS and stronger associations for human resource development
- Securing working capital or low-cost capital
- Effective environmental controls
- Marketing research and information, expertise and control

K. Poultry Sector

To achieve the goal of doubling the population of broilers in Southern Africa follows, the poultry sector must:

- Identify the locations of grandparent stock, pullet and breeder houses, hatcheries, broiler farms or growing facilities, and processing plants.
- Determine distribution routes for the finished product.
- Identify sources of finance, feed mill operations and equipment to service the supply chain, and transportation methods for transporting the live birds and finished product.
- Verify components of health and bio-security plans.
- Identify specific associations for interaction and assistance, general agricultural practices plan for the entire chain, and basic HACCP plan for all steps in the chain.

The Pacific Basin Economic Council has completed a review similar to that discussed above. Therefore, a successful model exists to use to identify the constraints to the supply chain with regard to productive expansion. A council of producers from the region should review the plan and promote the views of a regional commodity association. Importantly, the port facilities in Tanzania and Mozambique offer immediate opportunity to increase competitiveness.

The development of a regional poultry association could be facilitated by developing a partnership with the National Poultry Council organization in the United States and work to increase poultry trade in the region, serving as a liaison with governments and stakeholders. South Africa maintains a successful producer-based model based on a dairy production association, which could be replicated.

L. Beef Sector

The Hub could facilitate APHIS and the governments of Namibia and Botswana to complete the necessary work for exporting beef to the United States. In doing so, it would be useful to

communicate at least monthly on the status of the project to all stakeholders and industry groups. The assistance of South Africa commodity groups should be part of the program intervention. The Hub could also coordinate strategic discussions between Botswana, Namibia and South Africa to develop an export strategy for high quality beef from the three countries. With their disease-free zones, and working together, these countries could develop a high quality product and ship it to various locations across the world. A plan for tariff mitigation intervention remains extremely important. Information regarding data on the various tariffs and NTBs of animal and leather products throughout the region, intra-regionally and internationally needs to be assessed.

Specific sector regional commodity associations should become more active in providing successful models, technical assistance and training to small holders in agriculture. These include SAMIC, Namibia Agricultural Union, NASFAM and IFDC. By interacting with these groups, the Hub could facilitate taking the plan to other countries in the future. The Hub could facilitate broader information sharing through linkages with the Land O'Lakes programs in Tanzania, Malawi and Zambia also offer successful models.

One of the first year goals for the beef commodity association is to develop a plan for increased smallholder training and participation in the supply chain. Meat King in Tanzania referred to recent successes with the traditional herding groups in selling some of their animals and replacing them with better animals. This success needs to be replicated through out all of Southern Africa.

Hub interventions in the region should also be linked with a strategic partner in the US, such as the National Cattleman's Beef Association in the United States, to increase beef trade in the region. This organization could act as a liaison to governments and policy people. South Africa maintains the most successful model on how to organize a cattle producer association, with required functions. Again, this organization should remain producer-driven without intervention from government bodies.

M. Dairy Sector

Dairy associations in the region are organized and known. The HUB should facilitate a functional regional-wide commodity association. Land O'Lakes maintains successful models in many different countries and could be a strategic partner. The most productive way to develop a plan for regional trade expansion is to utilize the best assets to develop tradable commodities for the region. For example, developing brand products, like a regional cheese for export. A regional association could be similar to the dairy producer organizations in the United States, providing services to member associations to increase dairy trade in the region. The organization could act as a liaison to governments and policy people. South Africa maintains the most successful model on how to organize a dairy producer association, with required functions. Again, this organization should remain producer-driven without intervention from government bodies.

SECTION III

Textiles/Garment Sector

Introduction

The textile and garment industries in SADC offer opportunities to increase trade within the region and internationally to the United States and Europe. Even with the end of the multi-fiber agreements in January 2005, the region's industries can realize competitiveness now. Furthermore, manufacturers in all SADC countries⁵ can ship garments meeting specific rules of origin duty-free to the United States until 2008. This gives them a potential cost advantage of approximately 16 percent over manufacturers in Eastern Europe, the Far East and South Asia. Similarly, under the current Lomé/Cotonou agreement all manufacturers⁶ in the region can ship garments meeting the rules of origin duty-free to Europe⁷. So far, however, only a few countries have attracted the investment necessary to take advantage of these trade regimes.

The SADC textile and garment sectors are unique in Africa in that the region has modern, world-class businesses at all stages of the supply chain from fiber to retail and product design through marketing. Yet, no one country can competitively provide all stages of the supply chain. In order for the region to take advantage of the benefits of AGOA and Lomé/Cotonou, regional supply chains involving production in more than one country will have to be developed. This brings two compelling issues to the fore: (a) regional cooperation, rather than competition among countries, is necessary to develop these supply chains; and (b) transport between centers of garment and textile production and overseas shipment must be as efficient as possible.

This section of the report provides a brief summary of the assessment and key findings regarding the textile and garment industries in the SADC. Volume Two provides a detailed competitive assessment of each country, along with expanded findings and recommendations.

A. Success Through the Supply Chain

The supply chain creates vertical integration when operating efficiently. In other words, the outside influences either enhance or affect the chain neutrally. Moreover, different stages of the supply chain require different input factors. For example, garment production is labor intensive but requires relatively little capital. Fabric production, on the other hand, is capital intensive, requiring large amounts of energy, but relatively little capital (see Table 1).

Location also plays a major factor in influencing the vertical integration of the chain. For example, significant amounts of cotton are wasted at each processing stage partly because cotton is a natural product and partly due to the nature of textile and garment production. Therefore, the closer one stage is to another, the lower the loss in transport. Reducing transportation costs on some key corridors is thus an important element of building competitive regional supply chains.

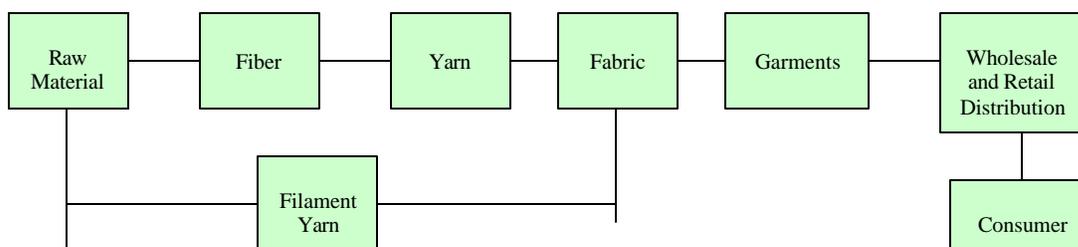
⁵ Except for DRC, Angola, and Zimbabwe for the moment.

⁶ Manufacturers in RSA are now eligible for these benefits under the EU-RSA Free Trade Agreement.

⁷ The Cotonou agreement is scheduled to be renegotiated in 2005. There is no indication of what will happen to the duty-free privileges for apparel.

Figure 2 illustrates the production and major distribution steps in the garment supply chain.

Figure 2. The garment supply chain⁸



Source: Coughlin, Rubin, Darga. 2001:14

Table 1. Characteristics of textile and garment production stages

	Energy usage	Water usage	Labor intensity	Capital Intensity	Lead time for new production
Ginning	low	little or none	low	low	moderate
Man-made fiber production	moderate to high	moderate to high	low	high	long
Yarn texturizing	moderate	low	low	moderate	Moderate
Yarn spinning	Moderate to high	little or none	low	moderate	Moderate
Yarn dyeing	very high	very high	low	high	moderate
Weaving	high	Moderate	Low	High	long
Circular Knitting	Moderate	Little or none	Low	Moderate	moderate
Hand flat-knitting (knit to shape)	Low	Moderate	High	Low	short
Fabric finishing	very high	very high	low	high	long
Garment production	low	low	high	low	short
Garment washing	moderate	high	low	moderate	short

Adapted from Coughlin, Rubin, Darga.2001:16

Summarizing the information that is available gives an idea of how competitive regional supply chains might be created (Table 2.). It is important to understand these supply chains will be created by private companies negotiating among themselves. The value of this analysis is that the Hub could understand where activities will most likely be successful and thus have some idea of where to focus its intervention. To understand how to create competitive supply chains, suppliers at all stages must understand the requirements of the markets they are serving.

In creating alliances, manufacturers and other intermediaries need to look at partners with the ability to meet specific market requirements. If the Hub is to assist in creating supply chains, it must be aware that such information is needed for creating successful alliances. And one way to accomplish this information sharing is to develop a web-based market intelligence system.

⁸ Raw cotton has to be ginned to remove seeds and other material before the fiber can be processed. Man-made fibers are made from chemical feedstock. Man-made staple fiber is similar to raw natural fiber and is spun into yarn. Man-made filament yarn is not spun from fiber but manufactured directly into yarn. Filament yarns are usually *texturized* or processed in some way before they are woven into fabrics.

Table 2. Strengths and weaknesses by country*Based on Coughlin, Rubin, Darga. 2001:48 with updates from current field surveys.*

Country	Strengths	Weaknesses	Opportunities: Competitive advantage for the following sub-sectors:
Botswana	Capital available Good investment climate Close to cotton and yarn in Zimbabwe and Zambia Moderately priced electricity Close to major South African markets Close to Walvis Bay	Lack of water High labor costs	Knitting and spinning Low water-usage weaving Opportunity to produce high-end fashion apparel, and apparel under high productivity conditions
Lesotho	Good investment climate Moderate electric cost Moderate labor costs Moderate water costs	Lack of factory shells	Yarn and fabric production Apparel production, basics
Malawi	Moderate electric costs Lowest labor costs in the region Unused capacity in textiles and garments Cotton Exporter	Moderately reliable electric supply Low cotton seed quality/productivity	Cotton, yarn, fabric production Apparel production, basics (Must improve electric supply reliability)
Mozambique	Low labor costs Unused capacity in textiles and garments Cotton Exporter Ports with potential for improvement	High electric costs in some areas Low cotton seed quality/productivity Internal transportation is poor and costly	Cotton production Apparel production, basics Spinning Circular and flat knitting
Mauritius	Fair investment climate Moderate cost and very reliable electric supply Moderate water costs Well-developed design and marketing capabilities	High labor costs	Yarn and fabric production High-end fashion apparel High productivity apparel production Product design and marketing
Namibia	Low cost and reliable electric supplies Very Good investment climate Water available in certain regions Walvis Bay and the trans-Kalahari and trans-Caprivi corridors Existing high productivity garment production (Ramatex and sister plants)-plans for fabric production as well	High labor costs General lack of water	Yarn production Circular knitting Low water use weaving High-end fashion apparel Apparel produced under high productivity conditions Logistics center for transport to the United States and Europe
South Africa	Moderate investment climate Low cost and reliable electric supply Good water supply Well-developed design and marketing capabilities Sole producer in the region of man-made fiber for apparel	Highest labor costs in the region	Product design and marketing Yarn and fabric production Fabric finishing High-end fashion apparel
Swaziland	Low cost and reliable electric supply Good water availability Significant unused capacity in spinning	Moderately high cost labor Poor labor relations High water costs Cloudy investment climate	Yarn production High-end fashion apparel Apparel produced under high productivity conditions (Must improve investment climate and labor relations)
Tanzania	Moderate labor costs Unused capacity in textiles Cotton Exporter Spare Ginning Capacity	Highest electricity costs in the region Unreliable electricity Poor investment climate Poor cotton seed quality and lowest productivity in Africa	Apparel production Spinning (Must improve electric supply reliability and investment climate) Cotton Production

Zambia	Low electric costs Good water availability Good investment climate Moderate labor costs Cotton Exporter Spare Ginning Capacity	High shipping costs to sea-ports High internal shipping costs Unreliable electricity supply in rainy season	Yarn and fabric production Apparel production Cotton Production (Must Improve Electric Supply Reliability)
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B. Integrated Regional Market Information System

Rather than develop a comprehensive marketing database that covers the entire garment supply chain, the assessment team recommends developing a comprehensive data resource on supply and demand for textiles and fiber, to help boost shortfalls in resources. This system would:

- Develop and maintain an inventory of yarn and fabric production capacity
- Obtain current and projected fabric and thread requirements from garment manufacturers
- Convert fabric requirements to yarn and fiber requirements

For such a data resource to be successful:

- The information must be timely and updated at least monthly
- The information must be in sufficient detail to be useful to industry *insiders*
- The resource must be effectively promoted so that it is used widely

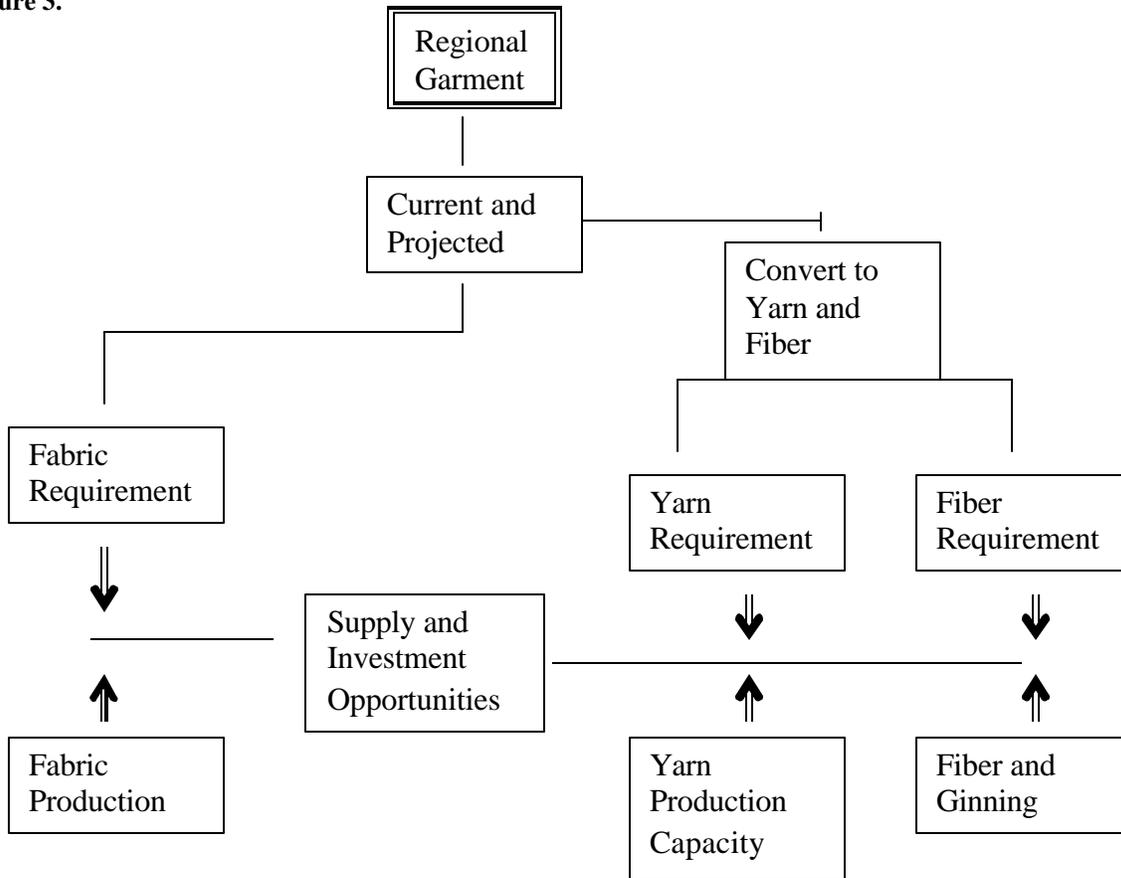
To meet these requirements, the assessment team recommends that a commercial operator run the data resource, with the objective that it will generate a profitable and sustained revenue stream. Recognizing that there are some difficulties in achieving this in the short run, the team recommends that the Hub provide the following assistance:

- Technical assistance in developing the concept, strategy, and conceptual design of the data resource
- Business development assistance in the form of organizational design and business-establishment consulting
- Assistance in identifying potential investment sources and in applying for such funding

A successful model and partner for this system may be MPCCS, a consulting and marketing firm based in Pretoria that has interest in expanding and developing this service. The Hub recommends working with MPCCS to develop this program.

The team believes that it will be difficult for some potential users to either afford or consider using the resource at first. As a result, the Hub could coordinate efforts to get other funding agencies to subsidize users who use the data resource. These will include existing USAID regional and bi-lateral assistance programs, agencies that have established links with the USAID, such as SAIBL, and agencies with whom the hopes to establish links, such as Comark Corporation. Most importantly, however, the Hub could champion the development of this data resource, and help find entrepreneurs who can take up this project on a subsidized start-up and ultimately, commercial basis.

Figure 3.



The following data resource will help overcome these constraints to increased trade:

- Lack of investment in new plants due to uncertainty over specific regional requirements for fiber, yarn, and fabric; and identifying the potential competition
- Lack of investment in revitalizing existing under-used plants due to uncertainty about specific regional requirements, and the specific products these plants can produce
- The need for cotton farmers and ginners to understand the precise types of lint regional spinners require
- Lack of communications between customers of foreign garment manufacturers and regional fabric suppliers
- Assist United States government in knowing AGOA's response on the textile side so proper legislative decisions can be made about the future phases of AGOA

C. Marketing Consultation for Group Nine Companies

The Hub was instrumental in establishing the mechanism for the United States to approve hand-loomed, handcrafted and folkloric items for duty-free entry to the United States market under AGOA. As a result, handicraft manufacturers in Lesotho, Swaziland, and Namibia in particular have had some success in selling to the United States market.

These manufacturers are all small, with only a few dozen permanent employees at the most. Their level of sophistication varies considerably. Those in Lesotho are generally small groups working in rural areas and selling most of their product to tourists at roadside stores. On the other hand, Swaziland has many fairly sophisticated operations with a great deal of export experience.⁹

Four constraints emerged from discussions with these manufacturers. The underlined constraints also have a direct relationship to the cross-cutting issues identified throughout this Summary Report:

- HIV/AIDS
- Lack of finance
- High cost of air-shipments
- Difficulty attending trade shows in Europe and the US

The Hub is not currently undertaking any specific action on HIV/AIDS as there are already numerous programs addressing this problem. It is important to point out, however, that in Swaziland, HIV/AIDS was cited as the single biggest problem facing manufacturers. Some were willing to sponsor “Know your status” programs and then provide anti-retrovirals to HIV-positive employees. When they contacted donor agencies (not USAID) that announced in the newspapers that they had received funding for distribution, however, they were not successful in getting assistance.

It is not within the Hub’s range of activities to sponsor or offset the cost for regional manufacturers to attend trade shows. The Hub could, however, balance the value of trade shows for the small manufacturers by providing United States based marketing consultations for those attending¹⁰. The consultation would include advice on marketing, presentation, pricing, and product types. The group Futech-Africa United States Trade has performed such consultation with small handicraft manufacturers from other developing regions with great success. The Hub, therefore recommends partnering with them to provide this consultation.

At the same time, the Hub recognizes the cost of attending trade show is beyond the means for most small manufacturers, at least initially. The Hub would defer providing funding assistance to either bi-lateral USAID missions under their small business development programs, other donors such as SAIBL who will consider such assistance, or local government sponsored programs such as the assistance offered by the Mauritian government through the Ministry of Trade and Industry.

D. Finance

A key constraint to trade development and competitiveness throughout the Southern Africa region is access to affordable financial instruments with reasonable terms and requirements that

⁹ I was not able to meet with any handicraft manufacturers in Namibia. I was, however, told that four had attended, with assistance from the bilateral USAID mission, the NY Gift Show and two had subsequently landed orders with United States buyers.

¹⁰ The Ministry of Trade in Namibia has requested the HUB sponsor several handicraft manufacturers to attend the NY Gift Show, and to provide the consulting assistance discussed in this paragraph

reflect the private sector's needs. It is this access that will enable SMEs entry into the supply chain and the potential to obtain the resources needed for market demand driven production of products and services. Based on the team's interviews, the consensus among key players is that most financial institutions in the Southern Africa region do not loan to SMEs that are considered to be high risk, including those in the three sectors assessed for this report. Banks and other financial institutions in the countries visited prefer to loaning to large, established firms or governments through bonds yielding high interest rates. The latter are much more lucrative and certain than the SME sector; and in fact, the government usually "crowds out" the private sector as a consequence.

The lack of available finance, and the Hub's approach to this issue, is discussed at length in the agriculture and livestock sector sections in Volume Two of this report.

E. Transport

The team proposes that the Hub support the development of an air-bridge from Southern Africa to the United States and Europe. Such an air-bridge will support not only garment sector¹¹ exports but horticultural exports, and undoubtedly other sectors as well. The cross-cutting affect of the bridge – to limit transport costs and increase markets and competitiveness – is immeasurable. As the regional facilitator, the key role the Hub would play would be to provide information on the volumes and locations of air-shipment markets. The Hub would then be able to consolidate data and demonstrate the commercial viability of air-bridges in specific locations in the region. The Hub's transportation experts will work with the sectoral experts to define the requirements for such an air-bridge and the potential cargo volumes.

The project steps for the air-bridge include:

- Survey existing airfreight services in the region, including rates, frequency, destinations, and volumes by type of cargo.
- Develop a profile of potential airfreight traffic in the region. This would include imports as well as exports.
- Analyze a sample of potential cargo to determine competitive break-even points for airfreight costs.
- Analyze the surface and air feeder routes for the regional air-bridge.
- Develop a proposal for a potential air-bridge.
- Find an airfreight company or companies who can champion the development of the air-bridge.

F. Regional Textile and Garment Association

The importance of regional linkages for creating competitive supply chains suggests a regional soft-goods industry association is an important asset for the region. An attempt has been made under SADC auspices to create such an association, but this has not really gone anywhere.

¹¹ About 20 percent of all garments imported into the United States are shipped by air.

Industry stakeholders in a number of countries have said that creating such an institution would help solve a number of problems:

- Improve information on supply and demand, particularly for textiles
- Improve information on available regional skills and training opportunities
- Provide a forum at which successful projects can be presented and thus replicated
- Provide a discussion forum on trade and other government policy issues so that a unified position can be taken, where possible
- Provide a communication mechanism for discussing productivity and trading constraints in the industry and ways of overcoming them

The communication mechanism noted above naturally corresponds with the development of the web-based market intelligence system. The association will take responsibility of the system because it also offers the opportunity to provide needed service to members, thereby attracting new members.

Most firms are reluctant to devote a lot of resources to a project where the benefits for the firm are unclear. Also, an animosity between the garment and textile manufacturers exists in most regions, and is due in part to their high interdependency within the chain.

The Hub is in an excellent position to champion and facilitate the creation of a regional textile and garment, or *soft-goods* association. The Hub is a neutral party and can manage the conflicting interests so the organization will focus on those areas of common interest.

Then steps the Hub would take to create this organization are:

- Review with stakeholders what has been done so far to create the SADC textile and garment federation. What were the original goals? What efforts were made? Why did they not succeed?
- Based on this review, propose a revised format and goals for the organization. Present these to stakeholders for comment.
- Work with stakeholders to get a consensus view. Create a list of critical unresolved issues and the points – pros and cons – on each side of those issues.
- Have a stakeholders meeting to approve the format and goals of the organization, approve those issues on which there is a consensus, resolve those issues on which there is conflict, and launch the association.
- The Hub would negotiate with the association an agreement for a limited term technical assistance program to get the association started. This will include an agreement that the association will undertake specific efforts agreed between the Hub and association members.

More specifically, an excellent opportunity to get the association going is the fact there is a major AGOA trade show being held in Johannesburg in March 2004. The sponsors of the trade show have suggested USAID support some SMEs in the region to attend the trade show with direct financial assistance. The team recommends that the Hub provide funding for up to 15

participants to attend the show.¹² In return these firms will agree to form the organizing committee of the regional Textile and Garment Federation. The initial meeting of this association will be at the trade show, and these firms will be expected to do some organizing work in preparation for that meeting.

The key partners in this program will be: national textile and garment manufacturers associations, representative private sector players from countries without similar associations; and include observers from the South Africa retail federation and overseas buyers with offices in the region.

G. Extending Cotton Improvement Programs

Volume Two discusses Clark Cotton's program for improving cotton production in Malawi, and in Zambia, in detail. The Clark program has one essential element: a loan provided by Clark to farmers at the beginning of the year for various necessities is deducted from sale proceeds at the end of the year. In addition, Clark Cotton has begun test plantings of seed varieties that have worked well in growing conditions in Zambia. Along with improved seed varieties, Clark will provide the farmers with extension services, advice and instruction on how to get the best yields.

Mozambique and Tanzania have the potential to benefit from similar programs as well, as both countries have recently liberalized their cotton sectors, and most cotton is grown by smallholders who lack good seed and access to adequate credit for inputs. Improving cotton production in these two countries would benefit the region's garment supply chain, as it would increase the supply of fiber and lower the cost of this essential raw material. Fiber can be as much as 50 percent of the ex-factory cost of a garment, and any reduction in cost will have an important benefit to a supply chain's cost competitiveness.

One important element that needs to be added to this program is information about the specific fiber requirements of regional spinners. Currently, such markets do not exist in Southern Africa. The only such market signals available to growers are based on those from international markets such as the Liverpool exchange. Again, regional market information could provide projected demand for fabric and yarn from garment manufacturers and calculate the specific fiber requirements; and growers can decide if they need to switch varieties.

Clark Cotton has specifically requested USAID assistance with two aspects of its program in Malawi: seed improvement research; and the development of a seed treatment program. Clark's rationale for requesting assistance is that the accomplishments in these two programs will benefit other grower groups and ginners, indeed the entire cotton sector in the country.¹³ The team recommends that the Hub consider funding this research, both directly and in conjunction with USAID Malawi's Rural Income Growth Program, which has a specific component to develop the local seed industry. In return for this assistance the Hub would ask Clark to establish similar programs in Mozambique and Tanzania.

¹² The organizers estimate the cost for attending the show will average about \$2,500 per participant, although this might vary a little based on the distance from Johannesburg.

¹³ Clark gins only about 40 percent of Malawi's cotton crop.

In working in Tanzania, the team proposes that the Hub partner with the NDC to help coordinate the process, overcome any licensing or regulatory barriers, and identify the program's pilot regions. The USAID mission in Tanzania has established a program to improve market access for farmers as part of its Economic Growth SO, and the Hub would liaise with the mission to see how it could support Clark and the development of the market information system.

In Mozambique, the Hub has not identified an implementation partner for this program. The USAID mission does, however, have extensive programs in the agricultural sector under its SO 1, Increased Rural Incomes.

The steps for implementing this program would be:

- Determine how the Hub and USAID Malawi can assist Clark with its current program.
- Assist Clark develop proposed programs for Mozambique and Tanzania.
- Contact the interested parties in Mozambique and Tanzania and facilitate initial discussions with Clark.
- Modify the program based on feedback from these initial meetings.
- Hold commencement meetings with stakeholders in each country.
- Clark would then begin the programs with agreed levels of assistance from the Hub and the other participants.

SECTION IV

Private Sector Capacity Development

A. Objective: SME Participation in the Supply Chain

One of the cross-cutting conclusions of the assessment team was the need to increase the participation of SMEs in the supply chain on a commercially viable and sustainable basis. In order to accomplish that goal, two broad areas must be addressed: 1) improving the macro enabling environment, including legislative and institutional factors coupled with an appropriate and properly enforced regulatory regime; 2) providing demand-driven business support services at the SME level to facilitate trade development encompassing the full spectrum: business skills training in core competencies (i.e. business planning assistance, managerial/organizational structure, accounting, product/market development, etc.), identification/linkage to affordable financial instruments, access to usable and current market information, and business/market linkages to the supply chain. An effective and efficient means for the HUB to impact these broad areas is through strategic cooperation and partnership with existing programs funded by USAID bilateral missions and other donors. Couple this cooperation with development of a regional network linking HUB interventions with existing BDS entities in the Southern Africa region. Networking will include SME firms and larger firms via the aforementioned.

B. Roles of the Key Players

The overall enabling environment (all policies, regulations, institutional support agencies, incentives, taxation, business licensing, etc., under the purview of the government) must be demand-driven by the private sector's requirements to stimulate trade development, increase competitiveness and growth. The private sector is the economic engine through its creation of revenue and jobs. The government is the enabler, creating and implementing the conditions under which the aforementioned can occur. It is critical to the private sector's success that government regulations and administrative requirements do not impede the efficient and effective operation of markets. Therefore, all recommendations from this assessment team on opportunity areas for the HUB's intervention or assistance are premised on this concept: The primary roles of the intermediary (BDS, associations, chambers of commerce, etc.) are to be the communication facilitator between the private and public sectors and the catalyst for change.

C. Importance of the Enabling Environment

Currently, the costs of business entry, growth and advancement (of a firm from small to medium or medium to large) are raised by: inappropriate regulations and the inconsistent, irregular implementation thereof; inadequate, mismanaged and/or improperly staffed institutions in key areas of property rights, finance, market information, etc.; and absence or weak administration of the rule of law/governance. The SMEs are hardest hit by these barriers due to lack of sufficient human and financial resources with which to overcome these impediments. In fact, surveys

conducted across Southern Africa¹⁴ suggest that the above circumstances in effect create “walls” that prevent the populous informal sector from advancing to the formal sector and consequently being able to access the resources for growth. In essence, the informal sector is locked in a cycle that perpetuates their separation. Less than 1 percent of firms graduate from the micro-enterprise status to the small firm level of 10 or more employees¹⁵. And the more complex the regulatory regime, the greater the opportunities for their subversion to the detriment of both the public and private sectors, as well as the country’s development. There is a need for better developed, simplified regulations and enforcement of those – not deregulation, since some regulations are both necessary and desirable (i.e. tax revenues, health/environment/safety issues, etc.).

Very few African countries in SADC have policy frameworks focused explicitly on removal of legislative obstacles to private sector development. They focus on promoting government support services that are not demand driven instead of eliminating the barriers that would obviate the need for such services. That’s because there is often little or no dialogue between the private and public sectors, and the latter do not understand or consider the business costs of their policy decisions.¹⁶

Additionally, a frequent legacy of former centrally controlled countries is a largely passive and alienated population. That situation coupled with widespread unemployment, poverty, disillusionment with the lengthy transition process to a market-based economy (and discouragement with such inhibitors as detailed) above have contributed to cynicism within the civil society and the private sector. They usually do not know how to work within the existing systems of their countries to advocate for changes. Elected officials and their appointees also do not yet understand why or how to address these constituents’ concerns. There are often no appropriate, formal mechanisms in place for individuals and the private sector to effectively petition government. Furthermore and importantly, accurate information about the government’s plans or activities, at all levels (local, provincial, national) is not readily available. Therefore, the private sector, and particularly the SMEs/SMMEs, is often forced to rely upon rumors, which can be false or misleading, or no information at all.

D. Demand-Driven Support Services and Linkages

Support services improve the SMEs’ competitiveness and business growth. To be effective, these services must be demand-driven by the private sector. Based on the assessment team’s meetings with private enterprises and their BDS providers, such services encompass: training and capacity building in general business skills (e.g. business planning, management, marketing, accounting, finance, etc.) and technical skills specific to each industry sector; technical assistance interventions that may be either general business best practices or sector-specific interventions;

¹⁴ SBP newsletter, November 2002, referencing Erneste & Schneider, 1998, and Bannock, G. et al, August 2002 reports.

¹⁵ SBP newsletter, November 2002, referencing “The Dynamics of Micro and Small Enterprises in Developing Countries,” *World Development*, by Mead, D.C. and Liedholm, C., 1998.

¹⁶ Interview with Zambian Private Sector Development Association, June 24, 2003, K.A. Potter, D. Yurosek cites an example of a ban on timber exports, announced by GoZ without private sector consultation, which had a significant negative economic impact. The ban was subsequently removed after lobbying by the Association up through the President’s level.

current and accurate market information; business to business linkage facilitation to increase access into the supply chain and proper due diligence conducted; and access to financing. Moreover, all of the aforementioned address the six key cross-cutting issues impacting each sector in every country visited.

E. Role of the Intermediary Organizations

The intermediary organizations have the important opportunity of being a bridge between the public and private sectors. (For purposes of simplicity, BDS will be used henceforth in this report to stand for all intermediary organizations that have primarily private sector membership/clients and are not sector-specific including Chamber of commerce, business associations, confederations of associations, BDSs, business to business consultants, etc.) It should be their responsibility to know which issues are critical to creation of an enabling environment that will promote private sector growth within the essential macro (economic, political, social) responsibilities of government. As stated above, often neither the public nor private sector knows and/or understands what the other side (or for that matter they themselves) needs to function effectively and efficiently and why. Furthermore neither side may have the inclination, ability or time to find out. Communication is the key to knowledge that, in turn, can lead to change. The BDS is the catalyst and delivery vehicle for the communication exchange and for the promotion of “best practices” among its constituents. Without this important BDS intervention and contribution, the sectors lack a direct, reliable route to communication.

The major problem with regard to communication is the absence of a comprehensive, centralized resource database that summarizes all the support providers and their programs, and is accessible to all the key players, including private sector, intermediaries and government. The vast majority of the private enterprises (especially SMEs), BDSs, and the donors themselves don’t know all the programs and project activities offered in country and regionally. If leveraging business facilitation programs and outreach to the end user – the private sector – are to yield effective and efficient results, then there must be a mechanism for information sharing and collaboration among these provider entities.

F. A Strategic focus on business development

As a regional change agent, the Hub can play a leading role to:

- Facilitate regional coordination to improve the enabling environment
- Synthesize and prioritize specific needs for BDS and associations
- Replicate and balance successful models to improve SME capacity

To achieve the above, the HUB must link with existing organizations and programs (national, regional, international) to optimize stakeholder effectiveness in improving the private sector's competitiveness for increased trade. There are two key groups with whom the HUB can liaise:

1. In-country BDSs, associations, et al
2. Donors, USAID and other bilateral missions, multilateral institutions, NGOs, private commercial firms/organizations, and public entities

G. Finance

A key constraint to trade development and competitiveness throughout the Southern Africa region is access to affordable financial instruments with reasonable terms and requirements that reflect the private sector's needs. Access is vital because it can enable SMEs entry into the supply chain and the potential to obtain the resources needed for market demand-driven production of products and services. Team interviews conclude that there is a consensus among most financial institutions in the Southern Africa region not to loan to SMEs/businesses that are perceived to be a high risk. The majority of SMEs in the three sectors, assessed by the team, fall into this category. Banks and other financial institutions in the countries prefer loaning to large, established firms or governments through bonds yielding high interest rates. The latter are much more lucrative and certain than the SME sector. In fact, the government usually "crowds out" the private sector as a consequence.

The HUB has a tremendous opportunity to address and change this debilitating, cross-cutting issue through: identifying potential financial resources; screening these resources by type (equity, joint venture, working capital, investment for specific purposes, etc.), target audience, criteria, success rates, etc.; establishing an updatable database; promoting and distributing this information through our strategic alliances (business associations, chambers of commerce, BDSs, etc.) to potential users; facilitating partnership with these resources; dialogue with users; monitoring results and evaluating effectiveness; responding proactively to donors, venture capital, development banks, private or other funding vehicles. Following is a list of some projects or sources of funds currently available. Many of these have multiple components addressing issues of policy, institutional development and training, funding support, assistance in sourcing finance, among other areas. Some programs offer training and TA to financial organizations to develop their capacity to serve the SMEs specific needs thereby addressing an important area as noted above.

- **Commonwealth Africa Investments Ltd.** - Launched in 1996 by former President Nelson Mandela, this is a \$63.5 million private equity fund providing risk capital to private sector business. Its goal is to stimulate long-term investment capital into Africa. It is managed by Comafin Management Ltd. of Zimbabwe and financed by multiple sources including several African, SE Asian and private banks, as well as consortia and

investment funds. The normal investment policy is to invest in sub-Saharan Africa, invest between \$1 to \$6 million in any one business; take a 10 to 40 percent equity stake.

- **FinMark Trust** - This Trust was established by DFID in South Africa and functions as an independent entity interfacing with commercial banks, multinationals, donors and others to promote greater sustainable access to appropriate affordable financial services. The aim is to facilitate the initiatives/incentives necessary for economic growth and equality. FinMark identifies and supplies a combination of consulting expertise and money to qualifying projects. For each Rand dispersed by FinMark, on average 1.30 Rands are contributed by others. Consideration for creating a “FinMark Africa” is underway, with a wider mandate worthy of the HUB’s consideration for future support.

FinMark also is involved in developing and supporting initiatives at the institutional level that could lead to improvements in the macro enabling environment through policy and legislative changes to key financial markets if successful. Additionally, FinMark is developing a research program to provide more reliable, usable information on accessibility of SMEs, among others, to retail financial markets in the region.

- **The World Bank (WB)**¹⁷ – A new program objective is to assist the micro, small and medium enterprises to become more efficient, competitive and profitable in Sub-Saharan Africa. A number of countries are expected to take part in the \$225 million pilot program over the next three to four years, drawing approximately \$130 million from new or existing IDA credits, \$60 million from IFC and other commercial investors, and \$35 million from additional sources. This initiative marks the first time that the WB Group has taken a coordinated large-scale, multi-country approach to private sector development that combines the resources of its concessional lending arm, the International Development Association (IDA), with those of its private sector affiliate, the International Finance Corporation (IFC). One distinctive aspect of the program's structure is its commitment to replicating and expanding the work of external partners that have proven track records in development.
 - Access to Financial Services: establish viable new microfinance institutions, improve the ability of local banks to lend profitably, and develop innovative vehicles to supply risk capital to small businesses.
 - Capacity Building and Business Development Services: strengthen managerial and technical capacity of small businesses by stimulating both demand and supply within the business development market. The program will also focus on industry-specific programs to link these enterprises with large corporations through integration of supply-chain activities.

¹⁷ The World Bank Group press release, “Boosting African Businesses,” July 1, 2003.

- Investment Climate and Enabling Environment: introduce reforms that facilitate dialogue between the public and the private sectors and improve the functioning and advocacy role of business associations.

The IDA-IFC initiative will be managed primarily by a single department that will coordinate with other relevant IFC and World Bank divisions and field offices. While specific country programs will be tailored to local realities, there will be a regional management structure to ensure the sharing of approaches and instruments and to handle the overall monitoring and evaluation of the program.

- **International Finance Corporation (IFC)** - IFC is the largest private sector financier in Africa with a \$1 billion portfolio spread over approximately 38 countries; those with the greater GDPs receive the most funding. IFC funding can take several forms: equity, lending, or combinations of quasi equity and other forms of capital. Additionally IFC is developing new products to assist its clients, such as guarantees to assist access to local currency financing.
- **MicroSave-Africa** – This is a research, educational, and product development initiative of Austria, CGAP, DFID and UNDP that promotes the development of a market-led and more client-responsive approach to delivering financial services among microfinance institutions (MFIs). To achieve this goal, MicroSave-Africa has successfully combined: primary field-level research regarding the financial service needs and preferences of the poor; action research working intensively on the ground with a selected group of microfinance institutions (MFIs); toolkit and curriculum development; and extensive information dissemination. The field-level research entailed extensive interviews with poor people (including microfinance clients) to better understand their financial behavior and risk profile; action research involved helping MFIs to better listen to clients and design appropriate financial products based on better market information. Both research activities complemented each other and led to the toolkit/curriculum development and dissemination efforts. The project has received international acknowledgement.
- **The Financial Deepening Challenge Fund (FDCF)** - This DFID project encourages and assists banks and other commercial financial institutions to create innovative, sustainable products and services for SMEs, among potential users. The FDCF will support projects that will: develop and pilot a range of new financial services in areas such as credit, savings, insurance, leasing, working capital, remittances, and others; and yield improvements to the financial regulatory and supervisory enabling environment. The FDCF commits funds to projects in selected countries across Africa in the range of UK pounds 50,000 to 1 million. Selected projects must commit to a cost contribution of about 50 percent of the total.

- **United Nations Capital Development Fund (UNCDF)** - This fund operates in several African countries and offers training and technical assistance to local micro-finance operations. The UNCDF utilizes best practice solutions to ensure that programs are practical and useful to the SME/SMME clientele's needs.
- **USAID Development Credit Authority (DCA)**- This facility has been used in a number of countries as a mechanism to encourage commercial banks and other financial institutions to lend in areas where there is both a clear need for lending and where the banks are reluctant to lend because of risk. A highly successful DCA program was initiated in Uganda, which is currently being replicated in other African countries. Success of the Uganda program is based on a technical assistance program that assists SME's linked to the DCA guarantee with a number of commercial banks.

SECTION V

Conclusion and Key Recommendations

The Hub's new Strategic Plan provides a framework for focusing on a more comprehensive approach to competitiveness by taking into account the broader regional and global market perspective, rather than just the U.S. market through AGOA. The Plan also calls for integrating agricultural supply chains within the trade mandate. In this context, this Summary Report deals with findings and recommendations specific to the horticulture and grain, livestock and leather products, and textiles/garments clusters. In addition, the report addresses a number of cross-cutting issues that represent key issues common to all clusters. Finally, the report addresses the importance of Hub's strategic role in building private sector capacity through stronger strategic partnerships.

A. Clusters

Building competitiveness requires getting specific about sectors and related cluster business opportunities in order to identify and address interventions that are relevant. Without a full analytical understanding of the clusters in question, interventions cannot be tailored to priority problems. Within any given cluster, the constraints affect specific stakeholders in the private sector, as well as specific commodity and export associations, government bodies and unique reform measures such as tariff and other technical barriers. One of the biggest challenges for the Hub is to develop its own analytical agenda to fully understand the nature of supply to market chains within the SADC countries and how the trade flows, both within the region and into other external global markets. The Hub is uniquely positioned to pursue the required analytical agenda, which will provide the Hub not only with its own comparative advantage, but also will provide a desperately needed development resource for clients in the region. The analytical information base must be comprehensive, and consistently updated in a systematic manner.

While a number of sector clusters could be addressed by the Hub, the assessment team was given the mandate to examine the horticulture and grain; livestock and leather products; and textiles and garments clusters from a supply to market chain perspective. These three clusters involve millions of producers, small medium and larger scale business operations, and provide potential for larger multiplier effects downstream. Of the three sectors examined, the textile and garment industry and horticulture industry are clusters having the most the most immediate potential given that considerable interest and reasonable knowledge of the constraints is known. In addition, the potential to leverage resources with other bilateral Missions, donors and indigenous institutions is promising. The cluster involving livestock and leather products is also a key cluster involving millions of potential stakeholders, however, the analytical agenda requires considerable work and the solutions involving regional supply to market chains are complex and will take considerable investment in time and resources before significant trade results can be achieved. More importantly, the livestock and leather products cluster is rife with cultural and political issues, disease issues, and high investment costs that will take considerable time to overcome. Nevertheless, some short term solutions could be addressed such as SPS issues for countries such as Namibia and Botswana, where some potential for more immediate results exists.

For each sector cluster, it is clear that selected countries have or can develop a somewhat unique competitive advantage to contribute to various aspects of the supply to market chain. In other words, to construct a vertically integrated supply chain, a regional approach is required- no one country is in a favorable position to vertically integrate on its own. This is particularly obvious in the textile/garment cluster. In this context, the Hub should strive to provide tailored interventions to the extent possible, specific to helping each country develop its own competitive strengths.

In sum, the Hub should give full attention to addressing the horticulture and textile clusters. While a long-term effort will be required to build competitiveness in the supply chains and develop regional vertical integration, it is also possible to achieve short-term solutions (one to two year time frame) for increasing the value of exports. While livestock is a very important cluster, it will require a long-term and concerted effort. It is unlikely that short term solutions can be achieved that will lead to increased export results. Finally, the Hub should make a major effort to build its analytical agenda around key cluster areas. This is a serious endeavor and should also be viewed as an on-going effort, consistent with the Southern Africa Competitiveness Hub mandate. Only with a substantial body of empirical data and analytical capability that is continually updated, will the Hub and its stakeholders be in a position to address the longer term objectives and desired results.

B. Cross-cutting Issues

The team identified six key constraint areas that cut across all sectors and countries within the region. While they need to be addressed in conjunction with cluster specific interventions, they also represent fundamental issues that also need to be addressed in a systematic manner with a view to harmonize approaches on a long-term basis. The Hub is in a position to provide leadership and coordination, collaborate with other donors, U.S. government agencies, bilateral Missions and indigenous partners with respect developing a coordinated approach on these themes.

Communication: The lack of basic information and communication within and across clusters regarding access to markets, technology, finance, resources from government and donor programs is viewed as a cross-cutting issue because it can and should be addressed in a more systematic manner. For a number of reasons, it is difficult for governments in the region and for the private sector to develop regional approaches to communication systems that promote true cooperation and regional harmonization. While donors and bilateral USAID Missions cooperate on a higher level, there is insufficient communication at the “project level” in terms of specific activities and how they reinforce each other. Likewise, U.S. government agencies promote a spirit of cooperation but communication is often lacking at the operational level. The Hub should develop a concerted outreach and communications effort to address these issues, providing a catalytic approach. For example, information systems that benefit the private sector and governments should be done on a cost-sharing basis that leads to sustainability and ownership.

Market Information Systems: The region’s private sector has a major difficulty in identifying markets not only within the region, but particularly overseas markets. While this problem has a strong communication component related to communication and outreach as noted above, the

need for greater specificity on marketing information is highlighted because producers and exporters must begin to focus their supply response on market demand. Markets first rather than production first is key to building competitiveness. The Hub should seek partners in the region to contract out such work. The Hub should develop stronger linkages with marketing and commodity groups/associations, newsletters, Universities, and State development agencies based in the U.S, which would also support the objectives of AGOA.

Increase SME Participation in Supply Chains: If competitiveness in the region is to be achieved, it is imperative that the millions of small and medium scale enterprises begin to participate actively in the clusters where growth potential can be achieved. To address this issue, the Hub should focus on three kinds of interventions. First, there is a great need to provide basic business development services to the SME sector, e.g. basic business practices, business planning, accounting, marketing, prospectus, etc.. The Hub has an opportunity to address this issue by coordinating with the SAIBL program out of South Africa, which will be expanded in the rest of region as well as the MDBA program with Department of Commerce. However, the program is limited at this time and the Hub should provide expertise to augment the BDS component in more depth and in more countries. The program can also benefit from cluster specific work that the Hub will undertake. Second, the SME sector would benefit by stronger linkages and opportunities to engage with larger agribusiness or other larger firms who can provide technical expertise and investment, outsourcing and market linkages. Third, the Hub should address the enabling environment for SME's and the private sector in general much more aggressively. Red tape, technical and non-technical barriers and weak export promotion initiatives are serious impediments. Addressing the enabling environment through private sector/public sector partnerships, strengthening associations and export promotion strategies will facilitate entry of more businesses into the competitive supply to market chains. All of the above should be coordinated closely with other donors and bilateral Missions projects to leverage resources and to avoid duplication of effort.

Skill Set Development: While this issue is linked with the SME focus, it is highlighted to emphasize the need to develop and promote specific skills for the various businesses that can participate in clusters. In some cases, it is a matter of developing manufacturing skills for specific supporting products such as packaging, or inputs for processing, appropriate technology, servicing of equipment, etc. In other cases, it is important for governments and associations to specialize their own competitive advantage to assist producers with consulting or marketing information that is demand focused and cost sets a course for cost recovery. The Hub could develop training modules i.e. specific skill sets and contract out training programs or simply provide them to key stakeholders. The skill set interventions would promote core competencies and sector-specific technical areas through a combination of formal and practical experiential/mentoring programs. It would also identify critical lessons learned from successful programs and expand them within countries, sectors, and the Southern Africa region.

Finance: Finance is a well-known critical constraint. The problem is acute for SME's and has two facets. On the one hand, many SME's cannot provide a credible business plan backed with standard collateral requirements that banks expect. This part of the problem can be addressed through the interventions noted above regarding the focus BDS and skill sets. On the other hand, commercial banks do not have a predisposition of lending to SMEs and or to producers involved

in agriculture because of the perceived and often real risks. As a consequence, many commercial banks lack loan officers who have any experience of lending into such sectors/clusters. The Hub and RCSA should begin an awareness and dialogue initiative with the commercial financing sector with the objective of educating them on Hub initiatives. At the same time, further investigation should be undertaken to fully understand the reasons for why commercial banks are reluctant to lend and to examination of successful programs/models underway with other strategic partnerships i.e. USAID bilateral missions, donors, public and private sector. Examples of existing, potential Hub partnerships include FinMark (DFID funded), DANIDA, the Industrial Development Commission (IDC) Risk Capital Facility (funded by the EU), Indefund (Malawi) or Minco (Mozambique and other Southern African countries) venture capital organizations. In addition, the USAID Development Credit Authority should be examined as a potential for providing guarantees to selected banks with regional branches.

Transport and Customs: The Hub has ongoing cross-cutting work in key transport corridors and customs harmonization. In addition to this important work, the Hub should more fully integrate the transport and customs work in relation to the cluster focus and the enabling environment efforts on technical and non-technical barriers. This will provide opportunities to more specifically address constraints, such as reducing air transport costs, extending additional corridors in relation to the flow of horticulture and textile trade. Reducing costs associated with increased use of alternate ports to Durban, South Africa, including Walvis Bay, Maputo, Beira, Nacala, and Dar es Salaam should be considered.

C. Strategic Partnerships for Building Private Sector Capacity

A central theme for the Hub should be to focus all interventions in a way that will lead to building private sector capacity. If competitiveness and trade is to be expanded, the private sector can and should provide both leadership to the reform process and at the same time become the engine for making trade happen. Thus, while some interventions are the responsibility of government to manage and act upon, they need to be driven by private sector demand. Building cluster competitiveness requires cooperation among participants in the cluster, sharing of information, and a view to create economies of scale that benefits the entire cluster and provides a driving force for penetrating international markets. It is with these principles in mind that the Hub should design interventions that help the region create its own vision and image of competitive advantage.

Without a major effort to leverage other resources i.e. bilateral Mission, donors, U.S. Government agencies, and indigenous institutional capacity, the Hub technical assistance team will not realize the full impact of its efforts. The region is large and diverse and it is simply not possible for a small technical assistance team to have significant impact on its own. Thus, a major effort should be given to building strategic partnerships. Of particular note, the Hub should work closely with the South Africa Mission and with South African institutions, private sector organizations and companies to build capacity building initiatives in the rest of the SADC region. For example, addressing SPS and food safety issues could be addressed more efficiently by developing a regional training and PRA review capability on behalf of SADC countries. Many other examples abound and are identified in the report.

More specifically the Hub could provide leadership to private sector development through the following:

- Organize periodic symposiums/workshops with donors, bilateral Missions and private sector organizations to review private sector and cluster issues. Policy and enabling environment issues should also be addressed in this forum. Broader specific topics including trade and labor, trade and the environment, financial sector constraints, application of ICT in business, and others need greater attention and awareness building within the region.
- Working with RCSA, develop operational coordination with DFID and the EU because they have or are beginning significant initiatives in trade development.
- As noted in cluster discussions of the report, develop strategic partnerships with South African institutions, commercial banks, and/or other organizations with the objective of leveraging technical capacity and technology transfer, trade linkages between SME's and larger firms, and have probability of attracting investment into SADC countries with respect to clusters development.
- Identify pro-export associations in each country to act as information and outreach conduits. This effort should also consider strengthening associations that have potential to provide leaderships in national strategy development, provide pro-active policy dialogue with their respective governments, and can promote regional cooperation in clusters.

ANNEX A

Objectives, Methodology and Background

A.1 Objectives

With the approval of the Regional Center for Southern Africa (RCSA) Botswana, Chemonics International fielded a four-person assessment team over 68 days, from June 16 to August 22 2003, at the Southern Africa Global Competitiveness Trade HUB. The Botswana-based HUB covers 14 countries with an aggregate size about that of the USA. The assessment team visited nine of those countries: Botswana, Zambia, Mozambique, Tanzania, Namibia, Malawi, South Africa, Lesotho, and Swaziland. Only the textile/garment advisor visited Lesotho and Swaziland. The HUB's area north to south is 3000 miles and east to west is 1800 miles, with an approximate population of 200 million.

As part of the HUB's refocus effort, the assessment team evaluated the supply chains and business clusters for three key sectors: **agriculture, livestock and textiles/garments**. Collectively, the team filtered its assessment through this question: How can the HUB refocus and realign its core work to achieve the strategic result of building export competitiveness in the region while increasing overall trade and investment? The assessment team's objectives spanned a spectrum including examinations by country, region and sector. Most importantly, the team identified key constraints to and opportunities for trade development and growth, examined how the private sector can improve competitiveness, and assessed the HUB's strategic role through the lens of these findings.

Our team members, with their respective areas of expertise, included: Karen Potter for private sector capacity development, Musa Rubin in textiles and garments, Jerry Turnbull with livestock, and David Yurosek for agriculture including horticultural and grain crops.

The HUB was establishment as part of President Bush's Trade for African Development and Enterprise (TRADE) Initiative. Launched at the first US/Sub Saharan Africa AGOA Forum in Washington D.C. in October 2001, the HUB's creation marked a definite beginning to regional market integration in Sub Sahara Africa. An urgency to make the HUB operational may have undermined the plan's proper strategic design. Therefore, many of the HUB's activities to date with regard to business linkages through AGOA were created on an ad hoc, opportunistic basis. During this early stage, the HUB responded to requests by providing 1) one on one technical advice to companies and organizations or 2) referrals to other U.S. government agencies on a broad range of issues.

The requests were not cataloged in a database, as would benefit future requests and competitiveness. Currently there exists no database of local firms or foreign investors linked to specific sector and business interests.

While the ad hoc approach has provided useful information and built awareness of the HUB and AGOA, it has failed to provide a strategic and systematic approach to enhance competitiveness or promote business/donor linkages at a high success rate. Therefore, it's time for the HUB to invoke a positive change of strategies, outlined here with these objectives:

- Coordinate and collaborate with USAID bilateral missions, donors, NGOs, and private and commercial entities, among others.
- Develop partnerships with BDS providers in each country, including appropriate commercial consultancies, general and sector-specific business associations, chambers of commerce (national and international) and confederations of these.
- Create a regional BDS strategic network.
- Utilize resources posted at the HUB and RCSA, such as SAIBL, APHIS, Department of Commerce, and others.
- Link or balance the activities of other USAID funded projects in-country and regionally.

Considering this brief assessment, and as supported in the broad assessment to follow, the HUB's refocus efforts should come as no surprise. In granting these refocus efforts, USAID has done a great service to the future of the Trade HUB. The HUB's strategic plan also continues to address the results already identified in the RCSA Performance Monitoring Plan. However, this plan also provides a means to more directly affect results at a higher level, particularly for Strategic Objective (SO) 13 with regard to commercial markets for agriculture and for SO 2 with regard to regional integration.

A.2 Methodology

The assessment team adopted the following methodology to accomplish the stated objectives:

Both at the outset and throughout the assessment, the team reviewed over 200 reports and studies in total. These included: HUB agreements and quarterly and annual reports; regional and country-specific evaluations, studies, strategies, and reports on individual sectors, trade policies and agreements, economic analyses, etc., all produced by the HUB and other organizations; website resources; RCSA/USAID related surveys/reports; and documents provided by country and region based organizations in Southern Africa, including international donors and fund providers.

During the first week, team members met with USAID/RCSA and other contractors to obtain an in-depth debrief and historical perspective of the program and its evolution from their respective viewpoints. The team also organized meetings with the HUB's directors and staff. The team followed-up on these meetings by arranging for additional meetings during the course of the

assessment to obtain more detailed information and provide clarification to key questions/issues identified during other donor and firm interviews conducted by the team.

The assessment review included visits to nine countries over seven weeks, including: Botswana, Zambia, Mozambique, Tanzania, Namibia, Malawi, South Africa, Lesotho, and Swaziland. Only the textile/garment advisor visited Lesotho and Swaziland. In each country the team held meetings at the macro, intermediary and firm levels. In total, more than 400 meetings were conducted.

At the macro and intermediary levels, the team interviewed: USAID bilateral missions; government ministries and agencies including Investment Trade Centers and Export Development Boards, donor organizations and projects/organizations supported by the organizations; and business development service providers including chambers of commerce, general and sector-specific business associations, financial institutions and funds. The team looked to achieve solid objectives with these meetings by identifying and understanding the relevant programs, particularly those of private sector SME support. They examined for areas of duplication and overlap within HUB efforts or projects of USAID bilateral missions and looked for existing or potential levels of coordination and cooperation with the HUB or USAID bilateral missions. Overall, the team studied the various opportunities and constraints impacting trade competitiveness and growth on a national, regional and global level.

At the enterprise level, the team surveyed firms – from SMEs to large corporations – involved in each of the three sectors and the supply chains for each country. The team posed questions regarding their businesses, types/impact of assistance received and desired, and macro and micro issues/constraints to their development. A standardized questionnaire was developed to obtain consistency in the information among the three sectors. Population numbers were limited (geographically and quantitatively) by time and availability constraints, so results of this data review cannot be considered statistically significant. Nevertheless, the team found that responses were generally consistent within and among the industry clusters and the total survey sample (including macro and intermediaries) on the key areas of constraints and opportunities for improving trade competitiveness and growth.

The team also looked at the overall political and economic situation, the current enabling environment for trade development, existing policies, weaknesses/strengths, and entrepreneurship/enterprise development in general in each country. The HUB's current and future role in enhancing trade competitiveness was evaluated within this overall context.

A.3 The Hub's Regional Scope

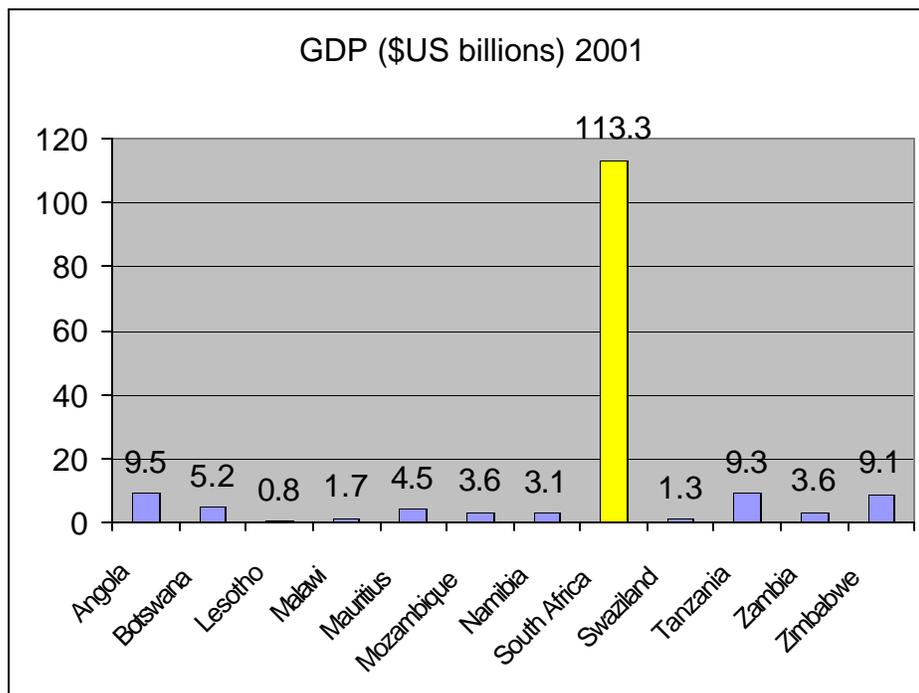
A.3.1 Geography of Client Countries

The Botswana-based Southern Africa Global Competitiveness HUB covers 14 countries with an aggregate size about that of the USA. The area north to south is 3000 miles and east to west is 1800 miles. It is a diverse geographical area encompassing landlocked countries and those along

the ocean, from dry desert environments to lush tropical conditions, and a topography that ranges over mountainous and into vast plains.

A.3.2 Population and People

Briefly, the total population of the region is 200 million, with culturally and ethnically diverse groups, religions and languages. The legal and judicial frameworks governing many of these people often reflect the vast cultural differences between them.



Source: World Bank country-at-a-glance tables

A.3.3 Political and Economic Factors

Politically, governments range from monarchies to democracies, with the latter at various levels of establishment and development. Some countries are just recently or still emerging from the effects of war (Angola, DRC, Mozambique) or socialist, centralized economies (Tanzania, Zambia). Others, such as Botswana, Namibia and South Africa, are quite stable. Institutional capacity and structure also ranges from developed to undeveloped within the region. And all the countries have varying needs politically, economically, socially, institutionally, etc.

Economically the differential in level of development is extreme. Utilizing GDP as a comparative measure of this, the spectrum runs from a low of \$US 800 million in Lesotho to over \$US 113 billion in South Africa. The chart below shows this clearly. Additionally, the

countries all participate in varying bilateral and multilateral trade agreements, which often have conflicting requirements that impact on their trade and economies.

Importantly, following the decades of the Cold War, there's been a reorientation to the West within the region that is of significant importance to both the political and economic future development of Southern Africa. As a consequence, the region is receiving substantial donor support both at the country and regional levels as well as across industries, technical and functional areas. Additionally, foreign interest in investment is increasing in some countries.

ANNEX B

Key Findings of Assessment Report

B.1 Cross-Cutting Issues

Through interviews and research our team has identified six key issues that cut across all sectors and countries within the region, to varying degrees. These cross-cutting issues, addressed specifically in each sector review, help to demonstrate a common purpose among the regions to *improve*:

- Communications
- Market information
- Increased SME participation in the supply chain
- Local skill sets
- Access to affordable finance
- Transportation and customs

When we discuss the supply chain, we recognize all the products, services and activities required to transform raw material into finished consumer goods. Furthermore, providers of products and services along the supply chain form the cluster sector. The supply chain components of each sector were scrutinized in detail by our team. Of great concern was where and how these components entered each stage of the chain. Therefore, the report reviews the impact on the supply chain of each cross-cutting issue and provides specific recommendations for each issue that will initiate increased trade, competitiveness and growth.

B.2 HUB's Strategic Role

The significance of this assessment maintains a vital relationship with this point: As a regional entity, the HUB functions most effectively as a change agent. Furthermore, the HUB's prime responsibilities are:

- To coordinate and improve competition among regions, thereby increasing trade
- Moderate, synthesize and prioritize specific needs into bona fide regional action
- Create successful regional models, then replicate and balance the remaining regions

Our new strategic plan broadens the HUB mandate to increase trade, particularly intra-regional, within all of Africa and overseas, and everywhere from the United States to AGOA. We hold

that the HUB must take full advantage of AGOA's potential for impact on the U.S. market. Indeed, AGOA is the catalyst behind opportunities for trade with the world's most important economy. As long as AGOA mobilizes industries into active competition, trade will expand into all the intended regions, including the United States. But the HUB must realize its own potential first, outside of AGOA, and through the measures outlined in our strategic plan.

B.3 Roles

The HUB requires strong partnerships with government, the private sector and intermediaries (including USAID bilateral missions) to fully develop trade competitiveness and growth. Let's visit each partnership here briefly:

- **Government** – The Enabler: Creates the necessary conditions for economic development. For the private sector to succeed, government must facilitate the efficient, effective operation of markets. No harsh or undue impediments. This environment includes: macro economic and political stability; strong, appropriate, functioning legislation and institutions; properly enforced regulatory regimes; and public/private sector dialogue with strong leaders to ensure success. Furthermore, leaders in the public and private sectors must communicate attainable goals, strategies and plans that stimulate regional trade growth and competitiveness. SMEs and women/disadvantaged enterprises should receive particular attention in this development process.
- **Private Sector** – The Engine: Creates revenue and jobs. Therefore, the private sector requires support from the government and intermediaries through support services and linkages, including the cross-cutting issues mentioned previously, such as: reliable, current, sector-specific market data and information; business skills training in planning, management, accounting, finance and marketing, to begin; general or sector-specific technical skills development; technical assistance interventions that are sector-specific and regional opportunities for replication/leveraging; business-to-business linkages for integration of the supply chain et al; affordable financial resources; eliminate transportation and customs trade barriers.
- **Intermediaries** – The Catalyst: Act as the communications facilitator between private and public sectors, including the HUB, USAID bilateral missions, donors, BDS providers, business/trade associations, and chambers of commerce et al. All dialogue, progress and knowledge between the government and business support services are transmitted through the intermediaries.

B.4 HUB's Strategic Relationships – Delivery Channels

Extending the HUB's outreach and optimizing its impact as a change agent will improve competitiveness and increase trade. The next step then requires the HUB form strategic relationships with similar agents, such as donors and organizations that also act as delivery channels of support to the public (enhance the enabling environment) and private sectors (services to enhance business assistance), respectively. Our goals to facilitate change include:

- Coordinate and collaborate with USAID bilateral missions, donors, NGOs, and private and commercial entities, among others.
- Develop partnerships with BDS providers in each country, including appropriate commercial consultancies, general and sector-specific business associations, chambers of commerce (national and international) and confederations of these.
- Create a regional BDS strategic network.
- Utilize resources posted at the HUB and RCSA, such as SAIBL, APHIS, Department of Commerce, and others.
- Link or balance the activities of other USAID funded projects in-country and regionally.

B.5 Recommendations

The following recommendations are about action – becoming a change agent through the six cross-cutting issues discussed above. This is a brief overview. Sector-specific recommendations are included in the relevant report segments:

Communication: To better balance information and resources throughout the supply chain at all levels, cooperation among other entities can benefit by these action steps: identify business facilitation resources and test resources for purpose and viability; develop a maintainable database; distribute information to users via intermediaries; promote and market usage of resources; communicate with users and monitor results to evaluate effectiveness; and respond proactively and appropriately to results.

Market Information System: Initiate through the HUB a sustainable, market-driven database that reacts proactively to the commercial market.

Increase SME Participation in Supply Chain: Identify, test, and facilitate linkages with strategic partners/programs to balance resources, knowledge and capacity building through existing bilateral USAID mission projects, other donor programs, private sector partnerships [proprietary corporate programs linking with SMEs or Small Business Project (SBP) type entities]. Support the intermediaries, or the conduits, of these linkages. For example, the HUB could benefit to balance successes like the SBP, SAIBL and TechnoServe.

Skill Set Development: Promote capacity building through training in business related core competencies and sector-specific technical areas through a combination of formal and practical experiential/mentoring programs. Identify critical lessons learned from successful programs and expand them within countries, sectors, and the Southern African region.

Finance: Facilitate linkages and expansion of successful programs/models through strategic partnerships with USAID bilateral missions, donors, public and private sectors. Examples of

existing, potential HUB partnerships include FinMark (DFID funded), DANIDA, the Industrial Development Commission (IDC) Risk Capital Facility (funded by European Union), Indefund (Malawi) or Minco (Mozambique and other Southern African countries) venture capital organizations.

Transportation and Customs – Facilitate resolution of cross-cutting and sector-specific barriers at levels of infrastructure, regulation and administration for transport modes including air, rails, roads, and sea. Continue planned activities and expand those that have already been successful during the HUB’s first year.

B.6 Expected Results

The goal is to increase trade by improving competitiveness within the private sector, and SMEs in particular. Therefore, when the HUB and RCSA adopt the recommendations cited above and detailed in each sector review, the following results addressing the six cross-cutting issues should be realized:

Communications

- Effective regional, sector-specific associations
- Effective outreach to key stakeholders through intermediaries, via communication with end users
- Continued formal sharing of program plans and results among all donors in region

Market Information

- Establish a functioning, maintainable sector-specific market information system
- Actively distribute the system to key constituents and facilitate its use

SME Participation

- Achieve and cultivate SMEs with expanded roles and new skills
- Urge the large entities – like donors, private sector, government, and others – to commit to develop the SMEs, those both functioning and obtained

Local Skills Improvement

- Establish functioning sector-specific training programs at levels both regional (specifically textiles/garments) and local (agriculture and livestock)

- Establish balance between intermediaries and projects providing general business capacity-building programs

Finance

- Invest additional funds in all the sectors specific to country and region, including, in part:
 - U.S. investments
 - Donors
 - Lending institutions
 - Private sector industry and institutions
 - Venture capital

Transportation and Customs

- Identify sector-specific bottlenecks
- Relieve the bottlenecks
- Create an air-bridge or reduce rates
- Increase the use of alternate ports to Durban, South Africa, including Walvis Bay, Maputo, Beira, Nacala, and Dar es Salaam

ANNEX C

Agriculture Annex

A. EUREPGAP : Protocol for Fresh Fruit and Vegetables

The EUREPGAP (Fresh Fruit & Vegetable) Protocol describes essential elements and develops best practices for global production of fresh produce and horticultural products. It demonstrates to customers a company's commitment and ability to produce safe and clean food, under an exhaustive system (HACCP) verified by an internationally recognized, independent third party.

A.1 Background

EUREP (Euro Retailer Produce Working Group) represents leading European food retailers and uses GAP (Good Agricultural Practice) as a framework for verification. Presently, it is specifically designed for businesses in the fresh produce supply chain. It offers a means of incorporating Integrated Crop Management (ICM) and Integrated Pest Management (IPM) practices within the framework of commercial agricultural production. Based on its success and involvement of a wide range of stakeholders, EUREPGAP is now also working on a standard for livestock, flowers, coffee and combinable crops.

The prospect for growth of EUREPGAP by providing international verification frameworks across a wide range of agricultural production sectors is by any estimation quite outstanding. EUREPGAP is in the pole position to become the global player in agricultural production standards and verification frameworks for fruits and vegetables. Retailers are procuring globally and are facing increasing competition, pressure on profitability and an ever tightening regulatory environment. Food safety has lately become a top priority for many retailers. At the same time producer organizations from all continents have applied for EUREPGAP membership and look for integrated and cost effective solutions delivering reassurance on food safety.

A.2 Benefits

- Ensures retailer and consumer confidence through responsible and sustainable production
- Complies with the minimum standard acceptable to leading retail groups in Europe
- Incorporates IPM and ICM in commercial agricultural production
- Supports the basic principles of HACCP

A.3 Relevant Markets

Since the start of the program (2000), over 600 certificates have been issued and operational with qualified staff in over 10 countries.

Primary producers, retailers, grower-associations, traders and their organizations can be certified against EUREPGAP standards. The following sectors are covered: fruits, vegetables, potatoes, salads, cut flowers, and nursery stock.

B. Porter Analysis

B.1 Production Factor Conditions

In Table C-1, production factor conditions are determined by the competitiveness of the horticultural and grain products, and assess the region as a whole for an enhancing, constraining or neutral impact on competitiveness. The average score for all the factors is between 1 and 2, which means that factor conditions in the region are a weakness for both global and intra-regional competitiveness. The most constraining to competitiveness are the overall cost of production due to the cost, quality lack of unskilled labor, the cost of skilled labor, administration costs associated with labor matters, quality of infrastructure, cost of capital, and the cost of technology.

Table C-1: Production factor conditions

Factor Conditions	Rate
Cost of Production	1
Labor	(1 to 2)
- Cost of unskilled labor	1
- Quality of unskilled labor	1
- Availability of unskilled labor	3
- Cost of skilled labor	1
- Quality of skilled labor	1
- Availability of skilled labor	1
- Administration cost associated with labor matters	1
Natural Resources	2
Infrastructure	(1 to 2)
- Quality	1 to 2
- Availability	1 to 2
Location	1 to 2
Capital	(1)
- Cost	1
- Availability	1
Knowledge	(1 to 2)
- Cost	1 to 2
- Quality	1 to 2
- Availability	1 to 2

Technology	(1 to 2)
- Cost	1
- Quality	1 to 2
- Availability	1 to 2
Average score for factor conditions	(1 to 2)
<i>1 = Constraint 2 = Neutral 3 = Enhancement () = Average score</i>	

B.2 Demand Conditions

Table C-2 illustrates the ratings for demand conditions as determinant of the competitiveness of the horticultural and grain products in the region. With an average score of 1 to 2, demand conditions as a whole are somewhat constraining to competitiveness. Market information is a significant constraint in most of the region, as well as market size in various countries. Quality of products in the region is poor with the exception of South Africa, which contributes toward competitiveness.

Table C-2: Demand conditions as determinant of competitiveness

Demand	Rate
Market size	1
Market information	(1 to 2)
- Quality	1 to 2
- Availability	1 to 2
- Cost	1 to 2
Quality of products	1– 2
Market growth	1 to 2
Average score for demand conditions	(1 to 2)
<i>1 = Constraint 2 = Neutral 3 = Enhancement () = Average score</i>	

B.3 Related and Supporting Industries as Determinant of Competitiveness

Table C-3 illustrates how related and supporting industries are rated according to the impact they have on competitiveness. Most cases lack a supportive nature in order to gain competitiveness in the region. With the exception of South Africa, there is a scarcity of research institutions, suppliers of packaging material and inputs, and electrical supplies are expensive and inconsistent. Financial institutions in the region generally do not want to loan to agriculture because it is too risky.

Table C-3: Related and supporting industries as determinant of competitiveness

Firm	Rate
Financial institutions	1 to 2
Research institutions	1 to 2
Transport companies	1 to 2

Suppliers of packaging material	1 to 2
Electricity supplies	1 to 2
Agricultural suppliers	(1 to 2)
- Competitiveness	1 to 2
- Sustainability	1 to 2
- Linkage	1 to 2
Related industries	1 to 2
Average score for related and supporting industries	(1 to 2)
<i>1 = Constraint 2 = Neutral 3 = Enhancement () = Average score</i>	

B.4 Firm Strategy, Structure and Rivalry as Determinant of Competitiveness

Table C-4 represents the impact of the strategy, structure and rivalry of the agro-businesses in the region as indicated. With an average score of 1 to 2, note the constraint on the part of agribusinesses regarding strategies and structure. South Africa is exception.

Table C-4: Strategy, structure, and rivalry as determinant of competitiveness

Firm strategy, structure and rivalry	Rate
Adaptability	1 to 2
Culture	1 to 2
Structure	1 to 2
Flexibility	1 to 2
Pricing strategy	1 to 2
Managerial capabilities	1 to 2
Market power of suppliers	1 to 2
Market power of buyers	1 to 2
Threat of new entrants	1 to 2
Average score for firm strategy, structure and rivalry	(1 to 2)
<i>1 = Constraint 2 = Neutral 3 = Enhancement () = Average score</i>	

B.5 Government Support as Determinant of the Competitiveness of the Horticultural and Grain Agribusinesses:

Table C-5 represents the impact of the respective governments in the region through their policies and attitude. The governments are for the most part a major constraint on the producers in indirect support, land reform, and labor and fiscal policy. South Africa's fiscal policy could be considered of neutral effect on competitiveness.

Table C-5: Government support as determinant of the competitiveness of the horticultural and grain agribusinesses

Government	Rate
Indirect support	1

Trade policy	1 to 2
Land reform policy	1
Labor policy	1
Fiscal policy	1 to 2
Average for government	(1 to 2)
<i>1 = Constraint 2 = Neutral 3 = Enhancement () = Average score</i>	

B.6 Chance as Determinant of Competitiveness:

Table C-6 illustrates the stability of the economic and political environment in the region. For the most part, the region is not economically stable. In fact, many of the countries in the region are some of the poorest in the world. Political stability is a major constraint. Corruption and lack of transparency contribute cause instability.

Table C-6: Chance as determinant of competitiveness

Chance	Rate
Economic stability	1 to 2
AIDS	1
Political stability	1 to 2
Price stability	1
Average score for chance	(1 to 2)
<i>1 = Constraint 2 = Neutral 3 = Enhancement () = Average score</i>	

C. South Africa Analysis

C.1 Production Factor Conditions:

Table C-7

Products – Added value to raw	Countries/Regions
Grain- cereal, flour, wheat flour	SADC
Palm oil, sunflower oil, fruit juices, ketchup, jams, frozen vegetables	SADC
Fruit Juices, prepared fruits, jams	EU, US, Asia
Products – Raw	Countries/Regions
Citrus, tree fruit, grapes, peanuts	US, SADC, EU, Asia

Table C-8 represents production factors conditions as determinants of competitiveness by the region as a whole, to have either an enhancing, constraining or neutral impact. The average score falls between 1 and 2, meaning that on average factor conditions are a weakness for both global and intra-regional competitiveness. The most constraining factors are the overall cost of production due to the cost, quality and lack of unskilled labor; the cost of skilled labor,

administration costs associated with labor matters, quality of infrastructure, cost of capital, and the cost of technology.

Table C-8: Production factor conditions

Factor Conditions	Rate
Cost of Production	1
Labor	(1 to 2)
- Cost of unskilled labor	1
- Quality of unskilled labor	1
- Availability of unskilled labor	3
- Cost of skilled labor	1
- Quality of skilled labor	1
- Availability of skilled labor	1
- Administration cost associated with labor matters	1
Natural Resources	2
Infrastructure	(1 to 2)
- Quality	1 to 2
- Availability	1 to 2
Location	1 to 2
Capital	(1)
- Cost	1
- Availability	1
Knowledge	(1 to 2)
- Cost	1 to 2
- Quality	1 to 2
- Availability	1 to 2
Technology	(1 to 2)
- Cost	1
- Quality	1 to 2
- Availability	1 to 2
Average score for factor conditions	(1 to 2)
<i>1 = Constraint 2 = Neutral 3 = Enhancement () = Average score</i>	

C.2 Demand Conditions:

Table C-9 illustrates the ratings for the demand conditions as determinants of the competitiveness of the horticultural and grain products in the region. With an average score of 1 to 2, demand conditions as a whole are somewhat constraining, but not enhancing for the competitiveness. Market information is a significant constraint in most of the region, plus the

market size in various countries. The quality of products is poor with the exception of South Africa, which contributes to constraint toward competitiveness.

Table C-9: Demand conditions as determinant of competitiveness

Demand	Rate
Market size	1
Market information	(1)
- Quality	1
- Availability	1
- Cost	1
Quality of products	1– 2
Market growth	1 to 2
Average score for demand conditions	(1 to 2)
<i>1 = Constraint 2 = Neutral 3 = Enhancement () = Average score</i>	

C.3 Related and Supporting Industries as Determinant of Competitiveness:

Table C-10 illustrates related and supporting industries according to impact they have on competitiveness. Most of the supporting industries are rated in such a manner that demonstrates a lack of supportive nature in order to gain competitiveness in the region. In the region, with the exception of South Africa, there is a paucity of research institutions, suppliers of packaging material and inputs, and electrical supplies are expensive and inconsistent. The financial institutions in the region generally do not want to loan to agriculture because of risk.

Table C-10: Related and supporting industries as determinant of competitiveness

Firm	Rate
Financial institutions	1 to 2
Research institutions	1 to 2
Transport companies	1 to 2
Suppliers of packaging material	1 to 2
Electricity supplies	1 to 2
Agricultural suppliers	(1 to 2)
- Competitiveness	1 to 2
- Sustainability	1 to 2
- Linkage	1 to 2
Related industries	1 to 2
Average score for related and supporting industries	(1 to 2)
<i>1 = Constraint 2 = Neutral 3 = Enhancement () = Average score</i>	

C.4 Firm Strategy, Structure and Rivalry as Determinant of Competitiveness:

Table C-11 represents the impact of the strategy, structure and rivalry of the agro-businesses in the region as indicated. With the average score of 1 to 2, it will be noted for the most part, there is a constraint on the part of the agribusinesses regarding strategies and structure. With the exception of South Africa, there is little strategy and structure to the agribusinesses in the region.

Table C-11: Strategy, structure, and rivalry as determinant of competitiveness

Strategy, structure and rivalry	Rate
Adaptability	1 to 2
Culture	1 to 2
Structure	1 to 2
Flexibility	1 to 2
Pricing strategy	1 to 2
Managerial capabilities	1 to 2
Market power of suppliers	1 to 2
Market power of buyers	1 to 2
Average score for firm strategy, structure and rivalry	(1 to 2)
<i>1 = Constraint 2 = Neutral 3 = Enhancement () = Average score</i>	

C.5 Government support as determinant of the competitiveness of the horticultural and grain agribusinesses:

Table C-12 represents the impact of the respective governments in the region through their government policies and attitude. Accordingly, as can be noted, the governments in the region are a major constraint on the producers in indirect support, land reform, labor policy and fiscal policy. South Africa is probably the only country in the region where the fiscal policy of the government could be considered of neutral effect on competitiveness.

Table C-12: Government support as determinant of the competitiveness of the horticultural and grain agribusinesses

Government	Rate
Indirect support	1
Trade policy	1 to 2
Land reform policy	1
Labor policy	1
Fiscal policy	1 to 2
Average for government	(1 to 2)
<i>1 = Constraint 2 = Neutral 3 = Enhancement () = Average score</i>	

C.6 Chance as Determinant of Competitiveness:

Table C-13 illustrates the stability of the economic and political environment in the region. For the most part, the region is not economically stable. In fact, many of the countries in the region

are some of the poorest countries in the world. Political stability is a major constraint due to corruption and lack of transparency in the governments of the region.

Table C-13: Chance as determinant of competitiveness

Chance	Rate
Economic stability	1 to 2
AIDS	1
Political stability	1 to 2
Price stability	1
Average score for chance	(1 to 2)
<i>1 = Constraint 2 = Neutral 3 = Enhancement () = Average score</i>	

C.6.1 Analysis

The SADC region currently lacks competitiveness in horticultural and grain products for intra-regional and global trade due to lack of capital, poor skilled and management labor, high interest rates, and lack of access to capital, lack of a governmental enabling environment to create competitiveness, lack of market information and research, poor supporting industries, and poor infrastructure. South Africa does not fall under this factor, and is quite competitive on the global market.

AIDS has an affect on the labor force because it strikes the most productive age group in the region. However, AIDS can not be considered a major factor for the countries of SADC being noncompetitive. In fact, the obstacles indicated in Table C-14 take precedence:

Table C-14: The obstacles to investment

Obstacle	Rating
Interest rates too high	2.6
Fluctuations in interest rates	2.7
More attractive returns on alternative uses of funds	3
Poor sales outlooks	3
Level of exchange rates	3
Unstable exchange rates	3
Labor regulations	2.8
Uncertainty over future labor relations	3
Inability to penetrate export markets	3.2
Increased competition in regional markets	3
Lack of own finance	3
Lack of access to borrowed funds	3.5
High company tax rates	3
Inadequate tax incentives for investment	3

Inadequate public infrastructure	3.7
Uncertainty over government economic policy	3
Crime and related problems	2.8
<i>1 = insurmountable 2 = severe 3 = moderate 4 = no impact</i>	

D. Mozambique Analysis

Table C-15

Products – Added value to raw	Countries/Regions
Prepared vegetables and fruit juice	
Products – Raw	Countries/Regions
Citrus, tomatoes, fresh fruit, coffee, wheat, corn maize, rice, peanuts, sunflower, sugar cane	US, SADC, EU, Asia

D.1 Production Factor Conditions

Table C-16 illustrates production factor conditions as determined by interviews and research. The average score is 1, indicating that various factors have a constraining impact on the competitiveness of Mozambique. Even though there is a copious supply of unskilled labor, the quality and vocational skills of the labor is very poor. On the other hand, the natural resources have an enhancing impact on the competitiveness of the sectors. Infrastructure, capital, technology, cost of production and location have a constraining impact on the competitiveness of the sectors. The interest rates are high and the availability of funding is virtually nonexistent.¹⁸

Table C-16: Production factor conditions

Factor Conditions	Rate
Cost of Production	1
Labor	(1)
- Cost of unskilled labor	1
- Quality of unskilled labor	1
- Availability of unskilled labor	3
- Cost of skilled labor	1
- Quality of skilled labor	1
- Availability of skilled labor	1
- Administration cost associated with labor matters	1
Natural Resources	(2 – 3)
Infrastructure	(1)
- Quality	1

¹⁸ Interview with Jake Walter on June 30, 2003.

- Availability	1
Location	1
Capital	(1)
- Cost	1
- Availability	1
Knowledge	(1)
- Cost	1
- Quality	1
- Availability	1
Technology	(1)
- Cost	1
- Quality	1
- Availability	1
Average score for factor conditions	1
1 = Constraint 2 = Neutral 3 = Enhancement () = Average score	

D.2 Demand Conditions:

Table C-17 indicates an average score of 1, demonstrating that demand conditions are constraining to the sectors. Access to market information is not available for the present agribusinesses to understand market conditions for their respective products.¹⁹ The quality of the products for export is a constraint due to the lack of knowledge, technical equipment, and varietal cultivars for much of the fruit, nut and vegetable products. EUREPGAP and SPS for the United States are major barriers for producers in Mozambique. Post-harvest handling in Mozambique is very poor and approximately 60 percent of the harvested horticultural crops are lost prior to consumption.

Table C-17: Demand conditions as determinant of competitiveness

Demand	Rate
Market size	2
Market information	(1)
- Quality	1
- Availability	1
- Cost	1
Quality of products	1 to 2
Market growth	1
Average score for demand conditions	(1)
1 = Constraint 2 = Neutral 3 = Enhancement () = Average score	

¹⁹ Interview with Jake Walter June 30, 2003; and interview with Mr. Kevin Gallegher of FAO on July 1, 2003.

D.3 Related and Supporting Industries as Determinant of Competitiveness:

Table C-18 illustrates related and supporting industries rated according to interviews and research by this consultant. The supporting industries in Mozambique are a constraint to the competitiveness of the sectors. The cost of inputs is very high, as all are imported from either South Africa or other countries. Due to the lack of financing and high costs of inputs, most of the smallholder farmers do not utilize inputs, creating poor yields and quality.²⁰ Electrical costs are high and inconsistent in delivery to the sector. Most packaging material is imported from South Africa or other countries, further adding to the transaction costs of the sector. The financial institutions do not provide credit to the smallholder and/or the few commercial agricultural operations that exist in Mozambique, stating that it is too risky. Research institutions do not exist to provide needed production information to the sectors. Transportation, due to the infrastructure, has a constraining impact on the sector. The cost of transporting maize from the northern to southern provinces is more expensive than can be purchased from South Africa (FAO, 2002).

Table C-18: Related and supporting industries as determinant of competitiveness

Firm	Rate
Financial institutions	1
Research institutions	1
Transport companies	1
Suppliers of packaging material	1
Electricity supplies	1
Agricultural suppliers	(1)
- Competitiveness	1
- Sustainability	1
- Linkage	1
Related industries	1
Average score for related and supporting industries	(1)
<i>1 = Constraint 2 = Neutral 3 = Enhancement () = Average score</i>	

D.4 Firm Strategy, Structure and Rivalry as Determinant of Competitiveness:

Table C-19 illustrates the impact of the strategy, structure and competitive rivalry as determinant of the competitiveness of the sectors. All components have a constraining impact to the competitiveness of the sectors. TNS is providing TA to several individuals to perform due diligence required in order to obtain financing and/or equity external investors.²¹ Adaptability, culture, structure, market power of suppliers and buyers all have a constraining impact on the sectors.

Table C-19: Strategy, structure and rivalry as determinant of competitiveness

Firm strategy, structure and rivalry	Rate
Adaptability	1

²⁰ Interview with Mr. Richard Segura on July 2, 2003.

²¹ Interview with Mr. Raul Negrar on July 3, 2003.

Culture	1
Structure	1
Managerial capabilities	1
Market power of suppliers	1
Market power of buyers	1
Threat of new entrants	2
Average score for firm strategy, structure and rivalry	(1)
<i>1 = Constraint 2 = Neutral 3 = Enhancement () = Average score</i>	

D.5 Government support as determinant of the competitiveness of the horticultural and grain sectors:

Table C-20 illustrates the impact of government through government policy and attitude determined by interviews and research, and rated according to constraining, enhancing and neutral effect on competitiveness. With an average score of 1, the government does not have an enhancing impact on the competitiveness of the sectors. The government holds title to all the land. Therefore individual producers cannot use the land as collateral, further inhibiting the access to financial funding. The government has a constraining impact on the labor laws, trade liberalization of imports, and provides support to the sectors due to the onerous and costly laws and regulations which currently exist (Graef, 2002).

Table C-20: Government support as determinant of the competitiveness of the horticultural and grain sectors

Government	Rate
Indirect support	1
Trade policy	1 to 2
Land reform policy	1
Labor policy	1
Fiscal policy	1
Average for government	(1)
<i>1 = Constraint 2 = Neutral 3 = Enhancement () = Average score</i>	

D.6 Chance as a determinant of competitiveness:

Table C-21 illustrates how agribusiness experiences difficulty controlling the environment's stability, which affects the competitiveness of the sectors. Although AIDS is a major problem in surrounding countries, Mozambique suffers less (Steven Kyle et al, 2002). Price, economic and political stability have a constraining impact on the competitiveness of the sectors.

Table C-20: Chance as determinant of competitiveness

Chance	Rate
Economic stability	1

AIDS	1 to 2
Political stability	1 to 2
Price stability	1
Average score for chance	(1 to 2)
<i>1 = Constraint 2 = Neutral 3 = Enhancement () = Average score</i>	

D.7 The Obstacles to Investment:

Table C-21 illustrates the major obstacles to future investment, as perceived by this consultant from interviews and research. Due to the overall constraints on the sectors, investment currently is constrained in Mozambique.

Table C-21: The obstacles to investment

Obstacle	Rating
Interest rates too high	1
Fluctuations in interest rates	1
More attractive returns on alternative uses of funds	1
Poor sales outlooks	1-2
Unstable exchange rates	1
Labor regulations	1
Uncertainty over future labor relations	1
Inability to penetrate export markets	1 to 2
Increased competition in regional markets	1 to 2
Lack of own finance	1
Lack of access to borrowed funds	1
High company tax rates	1
Inadequate tax incentives for investment	1
Inadequate public infrastructure	1
Uncertainty over government economic policy	1
<i>1 = constraint 2 = neutral 3 = enhancement () = average score</i>	

E. Republic of Tanzania Analysis

E.1 Production Factor Conditions:

The average score in Table C-22 for all the factors is approximately 1+, which means that Tanzania is not competitive in the horticultural and grain sectors for exporting to the global market. There are numerous factors that are constraining the competitiveness: lack of quality of unskilled labor, availability of skilled labor, infrastructure, capital costs and availability, lack of knowledge and technology, and the cost of technology.

In an interview with Mr. Pardep Goorha of METL, he stated that in order to have qualified office and management personnel, METL had to bring expatriates to perform these functions, which increased their transaction costs. He further stated that the quality of unskilled labor and the training costs was extremely high for METL.²²

Natural resources and availability of unskilled labor are an enhancement for competitiveness that Tanzania possesses. The location of Tanzania is improved over South Africa due to a closer proximity to higher income markets, such as the EU, India and the Pacific Rim.

Table C-22: Production Factor Conditions

Factor Conditions	Rate
Cost of Production	1 to 2
Labor	1
- Cost of unskilled labor	1
- Quality of unskilled labor	1
- Availability of unskilled labor	3
- Cost of skilled labor	1
- Quality of skilled labor	1
- Availability of skilled labor	1
- Administration cost associated with labor matters	1
Natural Resources	2 - 3
Infrastructure	1
- Quality	1
- Availability	1
Location	2
Capital	1
- Cost	1
- Availability	1
Knowledge	1
- Cost	1
- Quality	1
- Availability	1
Technology	1
- Cost	1
- Quality	1
- Availability	1
Average score for factor conditions	(1+)
<i>1 = Constraint 2 = Neutral 3 = Enhancement () = Average score</i>	

²² Interview with Mr. Pardep Goorha on July 9, 2003.

E.2 Demand Conditions:

With an average score of 1, Table C-23 illustrates that the demand conditions as a whole have a constraining impact on the competitiveness of the sectors. Demand conditions with a constraining impact include: quality of products, availability, cost and quality of market information, and market growth. The local market size is neutral and therefore has neither a constraining nor enhancing impact on the competitiveness of the sectors.

Table C-23: Demand conditions as determinant of competitiveness

Demand	Rate
Market size	1 to 2
Market information	1
- Quality	1
- Availability	1
- Cost	1
Quality of products	1
Market growth	1
Average score for demand conditions	1
<i>1 = Constraint 2 = Neutral 3 = Enhancement () = Average score</i>	

E.3 Related and Supporting Industries as Determinant of Competitiveness:

In Table C-24, related and supporting industries are rated according to research and interviews with private sector players. Related and supporting institutions with a constraining impact on competitiveness include: financial institutions, research institutions, transport companies, electricity supplies, competitiveness of agricultural suppliers, and related industries. The suppliers of packaging material, sustainability and linkage of the agricultural suppliers are a neutral and therefore do not constrain nor enhance the competitiveness of the sectors.

Mr. Ronnie Ferriera of Freshmark stated in an interview that research institutions did not assist growing vegetables for his stores. This was supported by Mr. Metal Shah of Serengeti Fresh in Arusha, Tanzania.²³

Table C-24: Related and supporting industries as determinant of competitiveness

Firm	Rate
Financial institutions	1
Research institutions	1
Transport companies	1
Suppliers of packaging material	1 to 2
Electricity supplies	1
Agricultural suppliers	(1 to 2)

²³ Interview with Mr. Ferriera on July 9, 2003 and Mr. Metal Shah on July 11, 2003.

- Competitiveness	1
- Sustainability	1 to 2
- Linkage	1 to 2
Related industries	1
Average score for related and supporting industries	(1 to 2)
<i>1 = Constraint 2 = Neutral 3 = Enhancement () = Average score</i>	

E.4 Firm Strategy, Structure and Rivalry as Determinant of Competitiveness:

Table C-25 illustrates the impact of strategy, structure and competitive rivalry as determinant of the competitiveness of the horticultural and grain sectors. The adaptability and culture of the management of the agribusinesses, flexibility, and managerial capabilities had a neutral impact on the competitiveness of the sector. The problem lies with the smallholder farmers, who have none of the above-mentioned skills, contributing to constraints in the country. Market power and structure also have a constraining impact on competitiveness of the sectors.

Table C-25: Strategy, structure, and rivalry as determinant of competitiveness

Firm strategy, structure and rivalry	Rate
Adaptability	2
Culture	2
Structure	1
Flexibility	1 to 2
Pricing strategy	2
Managerial capabilities	1 to 2
Market power of suppliers	1
Average score for firm strategy, structure and rivalry	(1 to 2)
<i>1 = Constraint 2 = Neutral 3 = Enhancement () = Average score</i>	

E.5 Government Support as Determinant of Competitiveness of the Horticultural and Grain Sectors:

With an average score of 1, Table C-26 demonstrates that government and government policy are defiantly constraining the competitiveness of the horticultural and grain sectors.

In an interview with Mrs. Anna J. H. Temu of Power Foods, she stated that she had applied 1 and a half years ago to conduct tests for products to be sold to the World Food Program. She did not receive a reply and was unable to sell her products to the WFP.²⁴ Mr. Mustak Fazal of Premier Cashew Industries stated that he had paid the VAT taxes for his imports and was to receive rebates from the government because he exports his cashew nuts. He stated that the government

²⁴ Interview with Mrs. Anna J. H. Temu on July 10, 2003.

had not rebated the money for three years.²⁵ This was supported by many other exporters of vegetables, nuts and flowers. Taxes at the local level are very constraining to the agribusinesses. In an interview with Mr. Ekko Oosterhuis, he stated that taxes are at the discretion of local tax implementers. Even though these taxes – called “nuisance taxes” – were to be terminated in the 2003 budget, the government has not enforced the order.²⁶ This fact was supported by numerous other individuals interviewed.

Furthermore, the Crop Boards were once again implemented in 2001 and have expanded their powers unilaterally to constrain the flow of product to the markets. They discourage firms in the horticulture and grain sectors by over-regulating and high licensing fees, and thus reduce competition (Mitchell and Baffes, 2002),

Table C-26: Government support as determinant of the competitiveness of the horticultural and grain sectors

Government	Rate
Indirect support	1
Trade policy	1
Land reform policy	1
Labor policy	1
Fiscal policy	1
Average for government	(1)
<i>1 = Constraint 2 = Neutral 3 = Enhancement () = Average score</i>	

E.6 Chance as Determinant of Competitiveness:

Table C-27 illustrates how the stability of the environment and other, volatile factors affect competitiveness of the horticultural and grain sectors. Economic and price stability are chance factors that have a constraining impact on competitiveness in the horticulture and grain sectors. AIDS and political stability have somewhat of a constraining impact on the competitiveness of the sectors.

Table C-27: Chance as determinant of competitiveness

Chance	Rate
Economic stability	1
AIDS	1 to 2
Political stability	1 to 2
Price stability	1
Average score for chance	1+
<i>1 = Constraint 2 = Neutral 3 = Enhancement () = Average score</i>	

²⁵ Interview with Mr. Mustak Fazal on July 9, 2003.

²⁶ Interview with Mr. Ekko Oosterhuis on July 12, 2003.

E.7 The Obstacles to Investment:

Table C-28 indicates major obstacles to future investment as perceived through interviews and research. As a result, investment in Mozambique currently is constrained.

Table C-28: The obstacles to investment

Obstacle	Rating
Interest rates too high	1
Fluctuations in interest rates	1
More attractive returns on alternative uses of funds	1
Poor sales outlooks	1-2
Unstable exchange rates	1
Labor regulations	1
Uncertainty over future labor relations	1
Inability to penetrate export markets	1 to 2
Increased competition in regional markets	1 to 2
Lack of own finance	1
Lack of access to borrowed funds	1
High company tax rates	1
Inadequate tax incentives for investment	1
Inadequate public infrastructure	1
Uncertainty over government economic policy	1
<i>1 = constraint 2 = neutral 3= enhancement () = average score</i>	

F. Zambia Analysis

F.1 Production Factor Conditions

Table C-29 represents production factor conditions rated by interviews and research to have either an enhancing, constraining or neutral impact on competitiveness. The average score for all the factor conditions is between 1 and 2, which means that, on average, factor conditions in Zambia are a weakness to the horticultural and grain sector's competitiveness. Factor conditions constraining competitiveness are quality of unskilled labor, cost of skilled labor, quality of skilled labor, availability of skilled labor, administration costs associated with labor matters, infrastructure for the grain sector, location, capital cost and availability and technology. Natural resources and the availability of unskilled labor enhance competitiveness of the sectors.

Concerning capital, the interest rates in Zambia are in excess of 40 percent and there is little access to short and/or long-term funds at that rate. Lending to agriculture is too risky, say the

banks. Lending through treasury bonds has become the norm, but farmers cannot access affordable financing. Many of the small growers have old varieties that are low yielding and not wanted by the markets. Profits are not realized (ZEGA Annual Report).

The location of Zambia is a constraining factor for the sector as a whole. In order to export the vegetables and flowers to the EU, airfreight is necessary. Airfreight has increased significantly in the past two years from 33 percent of the value of the roses to 50 percent of the value of the roses.

Zambia has very little manufacturing equipment, so all the technological equipment utilized in these sectors has to be imported, adding to higher transaction costs.

Table C-29: Production Factor Conditions

Factor Conditions	Rate
Cost of Production	1 -2
Labor	
- Cost of unskilled labor	1 to 2
- Quality of unskilled labor	1
- Availability of unskilled labor	3
- Cost of skilled labor	1
- Quality of skilled labor	1
- Availability of skilled labor	1
- Administration cost associated with labor matters	1
Natural Resources	2 – 3
Infrastructure	1 to 2
- Quality	1 to 2
- Availability	1 to 2
Location	1 to 2
Capital	1
- Cost	1
- Availability	1
Knowledge	1 to 2
- Cost	1 to 2
- Quality	1 to 2
- Availability	1 to 2
Technology	1
- Cost	1
- Quality	1
- Availability	1
Average score for factor conditions	(1 to 2)
1 = Constraint 2 = Neutral 3 = Enhancement () = Average score	

F.2 Demand Conditions:

With an average score of 1+, demand conditions have a constraining impact on competitiveness, as indicated in Table C-30. The demand factors with a constraining impact are market size, market information, and market growth. The quality of horticultural products is probably an enhancing impact for the competitiveness. Nevertheless, when weighted with grain the effect is neutral.

Table C-30: Demand conditions as determinant of competitiveness

Demand	Rate
Market size	2
Market information	1
- Quality	1
- Availability	1
- Cost	1
Quality of products	2
Market growth	1 to 2
Average score for demand conditions	1+
<i>1 = Constraint 2 = Neutral 3 = Enhancement () = Average score</i>	

F.3 Related and Supporting Industries as Determinant of Competitiveness:

In Table C-31, related and supporting industries are rated according to the perceptions of their impact on competitiveness. Most of the industries are rated to have a constraining impact on the sectors.

Table C-31: Related and supporting industries as determinant of competitiveness

Firm	Rate
Financial institutions	1
Research institutions	1
Transport companies	1
Suppliers of packaging material	1
Electricity supplies	1
Agricultural suppliers	(1 to 2)
- Competitiveness	1
- Sustainability	1 to 2
- Linkage	2
Related industries	1 to 2
Average score for related and supporting industries	1+
<i>1 = Constraint 2 = Neutral 3 = Enhancement () = Average score</i>	

F.4 Strategy, structure and rivalry as determinant of competitiveness:

Table C-32 indicates the impact on strategy, structure and competitive rivalry as determinant of the competitiveness of the horticultural and grain sectors. The adaptability and market power of suppliers is neutral for the competitiveness in the sectors. The culture, structure, flexibility, pricing strategy and managerial capabilities are rated as having a constraining impact on the competitiveness of the sectors.

Table C-32: Strategy, structure, and rivalry as determinant of competitiveness

Firm strategy, structure and rivalry	Rate
Adaptability	1 to 2
Culture	1
Structure	1
Flexibility	1 to 2
Pricing strategy	1
Managerial capabilities	1
Market power of suppliers	1 to 2
Market power of buyers	1
Threat of new entrants	1
Average score for firm strategy, structure and rivalry	1+
<i>1 = Constraint 2 = Neutral 3 = Enhancement () = Average score</i>	

F.5 Government Support as Determinant of Competitiveness of the Horticultural and Grain Sectors:

With an average score of 1, Table C-33 illustrates the constraining impact of government through government policy and attitude.

Table C-33: Government support as determinant of the competitiveness of the horticultural and grain sectors

Government	Rate
Indirect support	1 to 2
Trade policy	1
Land reform policy	1
Labor policy	1
Fiscal policy	1
Average for government	(1)
<i>1 = Constraint 2 = Neutral 3 = Enhancement () = Average score</i>	

F.6 Chance as Determinant of Competitiveness:

Table C-34 illustrates how the stability of the environment and other, volatile factors affect competitiveness of the horticultural and grain sectors. Moreover, Zambia has one of the highest AIDS incidences in the world. Therefore, the productive age of the working force is severely reduced. Recently, political stability has emerged.

Table C-34: Chance as determinant of competitiveness

Chance	Rate
Economic stability	1
AIDS	1
Political stability	1 to 2
Price stability	1
Average score for chance	(1)
<i>1 = Constraint 2 = Neutral 3 = Enhancement () = Average score</i>	

F.7 The Obstacles to Investment:

Table C-35 indicates the major obstacles to future investment as perceived through interviews and research. Major obstacles to investment in the horticulture and grain sector follow in the table. The ability of the horticultural exporters to penetrate the EU market has enabled moderate investment.

Table C-35: The obstacles to investment

Obstacle	Rate
Interest rates too high	1
Fluctuations in interest rates	1
More attractive returns on alternative uses of funds	1
Poor sales outlooks	1 to 2
Level of exchange rates	1
Unstable exchange rates	1
Labor regulations	1 to 2
Uncertainty over future labor relations	1 to 2
Inability to penetrate export markets	3
Increased competition in regional markets	1 to 2
Lack of own finance	1
Lack of access to borrowed funds	1
High company tax rates	1
Inadequate tax incentives for investment	1
Inadequate public infrastructure	1 to 2
Uncertainty over government economic policy	1

1 = insurmountable C-2 = severe 3 = moderate 4 = no impact

G. Namibia Analysis

G.1 Production Factor Conditions

Table C-36

Factor Conditions	Rate
Cost of Production	1
Labor	(1)
- Cost of unskilled labor	1
- Quality of unskilled labor	1
- Availability of unskilled labor	1
- Cost of skilled labor	1
- Quality of skilled labor	1
- Availability of skilled labor	1
- Administration cost associated with labor matters	1
Natural Resources	1 to 2
Infrastructure	(2)
- Quality	2
- Availability	2
Location	2
Capital	(1 to 2)
- Cost	2
- Availability	1
Knowledge	(2)
- Cost	2
- Quality	2
- Availability	2
Technology	(2)
- Cost	2
- Quality	2
- Availability	2
Average score for factor conditions	(2)
1 = Constraint 2 = Neutral 3 = Enhancement () = Average score	

G.2 Demand Conditions

Table C-37

Demand	Rate
Market size	1
Market information	(1)
- Quality	1
- Availability	1
- Cost	1
Quality of products	2
Market growth	1
Average score for demand conditions	(1 to 2)
<i>1 = Constraint 2 = Neutral 3 = Enhancement () = Average score</i>	

G.3 Related Related and Supporting Industries as Determinant of Competitiveness:

Table C-38

Firm	Rate
Financial institutions	1 to 2
Research institutions	2
Transport companies	1
Suppliers of packaging material	1
Electricity supplies	2
Agricultural suppliers	(1 to 2)
- Competitiveness	1
- Sustainability	2
- Linkage	2
Average score for related and supporting industries	(2)
<i>1 = Constraint 2 = Neutral 3 = Enhancement () = Average score</i>	

G.4 Firm Strategy, Structure and Rivalry as Determinant of Competitiveness:

Table C-39

Firm strategy, structure and rivalry	Rate
Adaptability	2
Culture	2
Structure	2
Flexibility	2
Managerial capabilities	2

Average score for firm strategy, structure and rivalry	2
<i>1 = Constraint 2 = Neutral 3 = Enhancement () = Average score</i>	

G.5 Government Support as Determinant of Competitiveness of the Horticultural and Grain Sectors:

Table C-40

Government	Rate
Indirect support	2
Trade policy	2
Land reform policy	1
Labor policy	1
Fiscal policy	2
Average for government	(1 to 2)
<i>1 = Constraint 2 = Neutral 3 = Enhancement () = Average score</i>	

G.6 Chance as Determinant of Competitiveness:

Table C-41

Chance	Rate
Economic stability	2
AIDS	1
Political stability	2
Price stability	2
Average score for chance	(2)
<i>1 = Constraint 2 = Neutral 3 = Enhancement () = Average score</i>	

G.7 The Obstacles to Investment:

Table C-42

Obstacle	Rate
Interest rates too high	2
Fluctuations in interest rates	2
More attractive returns on alternative uses of funds	1
Poor sales outlooks	1
Level of exchange rates	2
Unstable exchange rates	2
Labor regulations	1 to 2

Uncertainty over future labor relations	1 to 2
Inability to penetrate export markets	1
Increased competition in regional markets	1 to 2
Lack of own finance	1
Lack of access to borrowed funds	2
High company tax rates	2
Inadequate tax incentives for investment	2
Inadequate public infrastructure	2
Uncertainty over government economic policy	2
<i>1 = insurmountable C-2 = severe 3 = moderate 4 = no impact</i>	

H. Malawi Analysis

H.1 Production Factor Conditions:

Table C-43

Factor Conditions	Rate
Cost of Production	1
Labor	(1)
- Cost of unskilled labor	1
- Quality of unskilled labor	1
- Availability of unskilled labor	2 to 3
- Cost of skilled labor	1
- Quality of skilled labor	1
- Availability of skilled labor	1
- Administration cost associated with labor matters	1
Natural Resources	1 to 2
Infrastructure	1
- Quality	1
- Availability	1
Location	1
Capital	(1)
- Cost	1
- Availability	1
Knowledge	1
- Cost	1
- Quality	1
- Availability	1

Technology	1
- Cost	1
- Quality	1
- Availability	1
Average score for factor conditions	(1)
<i>1 = Constraint 2 = Neutral 3 = Enhancement () = Average score</i>	

H.2 Demand Conditions:

Table C-44

Demand	Rate
Market size	2
Market information	(1)
- Quality	1
- Availability	1
- Cost	1
Quality of products	1
Market growth	1
Average score for demand conditions	(1)
<i>1 = Constraint 2 = Neutral 3 = Enhancement () = Average score</i>	

H.3 Related and Supporting Industries as Determinant of Competitiveness:

Table C-45

Firm	Rate
Financial institutions	1
Research institutions	1
Transport companies	1
Suppliers of packaging material	1
Electricity supplies	1
Agricultural suppliers	(1 to 2)
- Competitiveness	1 to 2
- Sustainability	1 to 2
- Linkage	1 to 2
Related industries	1
Average score for related and supporting industries	1+
<i>1 = Constraint 2 = Neutral 3 = Enhancement () = Average score</i>	

H.4 Firm Strategy, Structure and Rivalry as Determinant of Competitiveness:

Table C-46

Firm strategy, structure and rivalry	Rate
Adaptability	1
Culture	1
Structure	1
Flexibility	1
Pricing strategy	1
Managerial capabilities	1
Market power of suppliers	1
Market power of buyers	1
Threat of substitutes	2
Threat of new entrants	2
Average score for firm strategy, structure and rivalry	(1 to 2)
<i>1 = Constraint 2 = Neutral 3 = Enhancement () = Average score</i>	

H.5 Government Support as Determinant of Competitiveness of the Horticultural and Grain Sectors

Table C-47

Government	Rate
Indirect support	1
Trade policy	1
Land reform policy	1
Labor policy	1
Fiscal policy	1
Average for government	(1)
<i>1 = Constraint 2 = Neutral 3 = Enhancement () = Average score</i>	

H.6 Chance as Determinant of Competitiveness

Table C-48

Chance	Rate
Economic stability	1
AIDS	1 to 2
Political stability	1
Price stability	1
Average score for chance	1

1 = Constraint 2 = Neutral 3 = Enhancement () = Average score
--

H.7 The Obstacles to Investment

Table C-49

Obstacle	Rate
Interest rates too high	1
Fluctuations in interest rates	1
More attractive returns on alternative uses of funds	1
Poor sales outlooks	1
Level of exchange rates	1
Unstable exchange rates	1
Labor regulations	1 to 2
Uncertainty over future labor relations	1 to 2
Inability to penetrate export markets	1
Increased competition in regional markets	1
Lack of own finance	1
Lack of access to borrowed funds	1
High company tax rates	1
Inadequate tax incentives for investment	1
Inadequate public infrastructure	1
Uncertainty over government economic policy	1
<i>1 = insurmountable C-2 = severe 3 = moderate 4 = no impact</i>	

I. Botswana Analysis

I.1 Production Factor Conditions:

Table C-50 illustrates production factor conditions that determine the competitiveness of the horticultural and grain sectors as rated by interviews and research. The average score for all factor conditions is 1, indicating that average factor conditions in Botswana are a constraint to the sector's competitiveness. Main constraining factors include: cost of production, cost and quality of unskilled labor, cost and quality of skilled labor, availability of skilled labor, administration costs associated with labor matters, natural resources, availability of infrastructure – e.g. pack houses, cold storage, agro-processing facilities – location of Botswana to the regional and global markets, cost of capital, lack of knowledge in agriculture, and lack of technology. The only factor conditions with a neutral impact on competitiveness include: availability of unskilled labor and the quality of roads and telecommunications in Botswana.

Table C-50: Production factor conditions

Factor Conditions	Rate
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Cost of Production	1
Labor	1
- Cost of unskilled labor	1
- Quality of unskilled labor	1
- Availability of unskilled labor	2
- Cost of skilled labor	1
- Quality of skilled labor	1
- Availability of skilled labor	1
- Administration cost associated with labor matters	1
Natural Resources	1
Infrastructure	1 to 2
- Quality	2
- Availability	1
Location	1
Capital	2
- Cost	2
- Availability	2
Knowledge	1
- Cost	1
- Quality	1
- Availability	1
Technology	1
- Cost	1
- Quality	1
- Availability	1
Average score for factor conditions	(1)
<i>1 = Constraint 2 = Neutral 3 = Enhancement () = Average score</i>	

I.2 Demand Conditions:

With an average score of 1, Table C-51 illustrates that the demand conditions as a whole have a constraining impact on the competitiveness of the sectors.

Table C-51: Demand conditions as determinant of competitiveness

Demand	Rate
Market size	1
Market information	1
- Quality	1

- Availability	1
- Cost	1
Quality of products	1
Market growth	1
Average score for demand conditions	1
<i>1 = Constraint 2 = Neutral 3 = Enhancement () = Average score</i>	

I.3 Related and Supporting Industries as Determinant of Competitiveness:

Table C-52 rates related and supporting industries according to interviews and research. Most supporting and related industries are rated 1, or constraining competitiveness. Only financial institutions, transport companies and electricity have a generally neutral impact on competitiveness.

Table C-52: Related and supporting industries as determinant of competitiveness

Firm	Rate
Financial institutions	1 to 2
Research institutions	1
Transport companies	1 to 2
Suppliers of packaging material	1
Electricity supplies	1 to 2
Agricultural suppliers	1
- Competitiveness	1
- Sustainability	1
- Linkage	1
Related industries	1
Average score for related and supporting industries	(1)
<i>1 = Constraint 2 = Neutral 3 = Enhancement () = Average score</i>	

I.4 Firm Strategy, Structure and Rivalry as Determinant of Competitiveness:

Table C-53 indicates the impact of strategy, structure and competitive rivalry. With an average score of 1, all factors have a constraining impact on the competitiveness of the sectors.

Table C-52: Strategy, structure and rivalry as determinant of competitiveness

Firm strategy, structure and rivalry	Rate
Adaptability	1
Culture	1
Structure	1
Flexibility	1
Pricing strategy	1

Managerial capabilities	1
Average score for firm strategy, structure and rivalry	(1)
<i>1 = Constraint 2 = Neutral 3 = Enhancement () = Average score</i>	

I.5 Government Support as Determinant of Competitiveness of the Horticultural and Grain Sectors:

Table C-53 indicates that with an average score of 2, the government is having a neutral impact on the competitiveness of the sectors.

Table C-53: Government support as determinant of competitiveness

Government	Rate
Indirect support	2
Trade policy	2
Land reform policy	2
Labor policy	2
Fiscal policy	2
Average for government	(2)
<i>1 = Constraint 2 = Neutral 3 = Enhancement () = Average score</i>	

I.6 Chance as Determinant of Competitiveness:

Table C-54 illustrates how the stability of the environment and other, volatile factors affect competitiveness of the horticultural and grain sectors. Economic and political stability have a neutral impact on competitiveness. On the other hand, AIDS has a constraining impact.

Table C-54: Chance as determinant of competitiveness

Chance	A. Rate
Economic stability	2
AIDS	1
Political stability	2
Price stability	1
Average score for chance	(1 to 2)
<i>1 = Constraint 2 = Neutral 3 = Enhancement () = Average score</i>	

I.7 The obstacles to investment:

With Table C-55, the major obstacles for investment are measured according to interviews and research. The following obstacles have a neutral effect on the sectors' competitiveness: fluctuating and high interest rates, unpredictable and unstable exchange rates, lack of individual finances and access to financing, high company taxes, inadequate tax incentives for investment, inadequate public infrastructure, and uncertainty over government economic policy.

Table C-55: The obstacles to investment

Obstacle	Rate
Interest rates too high	2
Fluctuations in interest rates	2
More attractive returns on alternative uses of funds	1
Poor sales outlooks	1
Level of exchange rates	2
Unstable exchange rates	2
Labor regulations	1 to 2
Uncertainty over future labor relations	1 to 2
Inability to penetrate export markets	1
Increased competition in regional markets	1 to 2
Lack of own finance	1
Lack of access to borrowed funds	2
High company tax rates	2
Inadequate tax incentives for investment	2
Inadequate public infrastructure	2
Uncertainty over government economic policy	2
<i>1 = insurmountable C-2 = severe 3 = moderate 4 = no impact</i>	

ANNEX D

Livestock Annex

A. Summary of the Southern African Region

A large number of people in the SADC region depend on the livestock and fishing industry for employment, capital and agricultural inputs. Given the status of grazing land, the sector faces many challenges including range mismanagement, poor breeding stock, lack of financial alternatives, and inadequate support services to control diseases that spread across national boundaries.

According to the 2001 livestock figures, SADC has 45.5 million cattle, 30 million sheep, 30.5 million goats, 33.5 million pigs, 2 million equines, 2.2 million ostriches, and about 200 million poultry. Poultry is probably the fastest growing sub sector characterized by smallholder peri-urban producers of broilers and eggs.

A.1 Trade and Intake Patterns

By the year 2010, global output of meat is projected to grow to 283 million tons. In developing countries, meat output is projected to grow 3 percent annually, compared to only 1.2 percent for developed countries. The trend in meat production is shifting from developed to developing countries. By 2010, nearly 80 percent of ruminant animals will be reared in developing countries while the share of poultry and pig meat will be approximately 70 percent.

Developing countries are expected to contribute three quarters of the 24 million ton increase in poultry meat output over the projection period. In other words, developing countries need to increase live bird production by 10 billion birds. Production by developed countries is expected to reach 34 million tons by 2010.

Growth in beef and sheep meat is projected to increase less than 2 percent over the next decade. The slow growth is expected to be due to slow growth in technical innovations and restructuring. Developing countries are expected to account for 8 out of the 10 million ton increase in world beef production and a major share of the 3 million tons increase in world sheep production.

Meat consumption is expected to increase 2.2 percent per year with a projected increase of aggregate meat consumption in these countries at an annual rate of 2.9 percent. Poultry consumption is expected to increase at the expense of other meats. Poultry consumption is expected to be 13 kg in 2010 as compared to 11 kg per caput in 2002. Within the SADC region, which has a population of 200 million, this means that production needs to increase by 400 million kg or the poultry population needs to increase by 200 million to cover the intake

increase. World beef consumption is expected to increase to slightly more than 10 kg while global consumption of sheep and goats is projected to increase from 1.8 kg to 2 kg.

In Africa, sheep and goat meat make up more than 20 percent of the total meat consumption.

Milk production is expected to shift for high-cost to low-cost countries. Milk production for the world is expected to increase to 665 million tons by 2010. Furthermore, milk production is expected to grow in all countries (developed, transitional and developing) with the largest increase taking place in developing countries. Production in developing countries is predicted to increase by 71 million tons and reach 292 million tons. The increase in production is expected to increase by boosting the number of milking cows. Most of the increase is expected from a higher yield per animal coming from improved nutrition and breeding. In Africa, milk production is expected to grow at a slower rate than in other developing countries.

In general, growth in livestock industries throughout the world is expected to continue to exceed the growth of many agricultural commodities. The greatest production and consumption gains are projected to occur in developing countries while trading will favor low cost exporters (FAO, 2002, <http://www.fao.org/DOCREP/MEETING/004/y7022e/y7022e00.htm>).

Dairy products had the largest percentage increase in the value of exports (32.3 percent). More specifically, the value for developing countries increased by 1.8 percent as compared to 32.2 percent for low-income food deficient countries. The export value of meat products declined by 1.4 percent in the world total whereas, the values of exports to developing countries increase by 7.4 percent. In Low Income developing countries the value of exports decrease by 3.6 percent.

The value of meat imports increased 2.4 percent for the world total, whereas the increase was 8.7 percent for developing countries with a decline of 12.1 percent for low-income deficient countries. The value of dairy imports increased 24.1 percent for the world with a 30.5 percent increase in developing countries followed by a 33 percent increase in low-income deficient countries.

Meat markets have continued to be affected by adverse consumer reactions to animal disease outbreaks. The trend in meat price increases is due primarily to improved poultry meat prices. The conclusion is that there is an increase in poultry consumption. Prices for dairy products have increased significantly and are predicted to remain strong, especially in developing countries.

The poultry meat price index has increased 11 percent since the start of 2001, giving an overall price increase of 5 percent to the meat price index. The trend is a global move away from meat consumption as animal disease concerns arise. Furthermore, a slow down in meat consumption

can be expected with deterioration of global economic conditions that will shift consumer consumption patterns to preferences for lower priced meat cuts.

The global meat market in 2000 was characterized by a slowing output growth and an increased incidence of market disruptions and trade diversions due to animal disease outbreaks in major exporting countries. Exporter competitiveness was also influenced by wide fluctuations of currency exchange rates and reductions in food aid and export subsidies.

International meat trade is witnessing a change in composition with increase in poultry meat consumption.

The short-term price outlook for hides and skins is uncertain because demand for leather and leather products could be affected by the weaker economic growth in major consuming countries.

Global output of bovine hides and skins reached a peak of 5.8 million tons in 2000 and declined in 2001 as production in developed countries declined with reduction in slaughter numbers. Higher slaughter numbers in developing countries was insufficient to reduce the reduction.

It is assumed that food safety concerns and disease outbreaks will reduce the output of bovine hides in Germany, Italy, United Kingdom, Ireland and other EU countries.

The export of hides and skins is expected to decrease for the United States because of lower output. Developing country exports rose in 2000 and 2001 sustained mostly by increased exports for some Far Eastern countries. This growth should continue in 2002, though it should be slower.

The world imports for bovine hides and skins rose approximately 2.5 percent in 2000, mostly as a result of increases in China, the Republic of Korea and Italy. Italy is now considered the largest importer of bovine hides and has an export demand for high quality leather and leather products. China and the Republic of Korea accounted for more than 30 percent of the global imports of bovine hides and skins in 2000. The second largest importer of bovine hides in 2000 was China, and this trend is expected through 2002 since the demand for high quality hides exceeds internal supplies.

The volume of trade for sheep and goatskins has remained mostly unchanged. However, there appears to be increases in the amount processed in China, which is offsetting the reductions seen in Eastern Europe and the Russia Federation (FAO, 2002 <http://www.fao.org/DOCREP/005/Y3007E/y3007e00.htm>).

Trade is an important contributor to economic growth and food security in developing countries. In Africa, most countries rely on exports of primary commodities to a) earn foreign exchange to finance development programs, b) to import foods that are not produced, or c) to cover shortfalls in domestic food production. This practice of relying on one or two primary products is very risky since world commodity markets are prone to sharp price increases. One way to minimize the impact of price instability is to diversify the range of exports and to find new markets. Intra-African trade is relatively small compared to trade with the rest of the world. In 2000, intra-Africa trade grossed \$11 billion compared to \$145 billion from trade with the rest of the world, or a share of 7.6 percent. Intra-regional trade can reinforce economic complementarities among bordering countries and stimulate additional growth both in agriculture and related sectors. One potential area where intra-Africa trade could be promoted is trade in food commodities such as livestock and livestock products.

Africa has been consistently deficient in dairy products over the last decade (averaging approximately 5 million tons per year in recent years). In Sub-Saharan Africa, Mauritius and Botswana have registered an annual deficit of over 100,000 tons in the past few years.

There is a persistent and growing meat deficit in Africa. The deficit increased from approximately 370,000 tons in the early 1990's to an estimated 655,000 tons in 2000. Thus imports increased from 5 percent of the total to 7 percent of the total over this time frame. Despite annual average meat output gains of 2 percent over the decade with 4 percent growth in meat imports, per caput meat consumption has declined from 14.6 kg/caput in the 1990s to 14.0 kg/caput in 2000. Some countries in the region are important exporters of live animals. The prevalence of animal diseases has impeded trade, and the region as a whole has turned into a net cattle importer over the course of the last decade. Live sheep trade continues to provide net foreign exchange earnings. However, the export in the Horn of Africa has been constrained by disease outbreaks of Rift Valley Fever.

Meat imports in the region grew mainly due to the growing demand of South Africa and Egypt. In fact, meat deficits in these two countries account for nearly two-thirds of the regional deficit. Botswana and Namibia experienced decreased imports because of drought and disease outbreaks. Although there appears to be some scope for promotion of intra-trade in the continent, the special nature and infrastructure requirements of meat products create constraints that hamper rapid development of trade in these products. The potential exists for expanding live animal exports from the Horn of Africa, however, the recurring disease outbreaks limit the expansion.

There is considerable potential for intra-Africa trade but exportable surpluses are limited. The main constraints to increased intra-Africa trade include low farm productivity, poor transport infrastructure, low purchasing power and trade barriers such as bans on food imports when countries have bumper harvests (ESRF, 2003).

A.2 Animal Disease Issues

A major production factor for Southern Africa is the incidence of disease. A brief discussion of the important animal diseases in the region follows.

A.2.1 Rinderpest

Eight SADC member states are officially recognized as being free from rinderpest infection. These are Angola, Botswana, Lesotho, Mauritius, Namibia, South Africa, Swaziland and Zimbabwe. The Democratic Republic of Congo and Tanzania are implementing the European Union-funded PACE Project under AU/IBAR, the main objective of which is to assist these countries and others in the continent to follow the OIE Pathway of Freedom from rinderpest. The other four member states – Malawi, Zambia, Mozambique and Seychelles – have not had the disease for more than 50 years. These four states have been advised to apply (if they have not yet done so) to the OIE so that they can be recognized as being free from rinderpest. The SADC region should be declared officially free from rinderpest disease and the infection by the 2005.

A.2.2 Foot and Mouth Disease (FMD)

The disease was recently reported in Botswana for the first time after many years of absence. South Africa re-attained her FMD freedom status after the 2000 episode, which was effectively contained and controlled in the KwaZulu-Natal Province. The disease continues to threaten millions of livestock and wildlife in the region especially in Angola, Democratic Republic of Congo, Malawi Tanzania, Zambia and Zimbabwe.

A.2.3 Contagious Bovine Pleuropneumonia (CBPP)

Tanzania is the worst hit by this disease and it is threatening to spread south to neighboring SADC member states. The disease is also a problem in Angola, Namibia and Zambia.

A.2.4 Lumpy Skin Disease (LSD)

Lumpy Skin Disease is endemic in all the SADC member states except Mauritius and Seychelles, where the disease has never been reported.

A.2.5 African Horse Sickness (AHS)

African Horse Sickness is a major problem in South Africa, Botswana and Namibia.

A.2.6 Newcastle Disease

This is most harmful disease for poultry in all the SADC member states, except Mauritius and Seychelles. It affects mainly the traditional village chicken and backyard flocks.

A.2.7 Anthrax

Anthrax occurs sporadically in most member states in cattle. Outbreaks are frequently reported in

game in South Africa and Tanzania.

A.2.8 Brucellosis

This disease is important because of its zoonotic nature and is believed to be more widespread than is currently reported in the member states. South Africa, which has an accreditation scheme in operation, reported the highest incidence.

A.2.9 Rabies

Rabies is a permanent threat to humans and domestic and wild animal populations throughout the SADC region. The number of cases reported for dogs are the highest, followed by cattle. Rabies cases both in animals and humans are grossly under-reported by SADC member states.

A.2.10 Tuberculosis

Bovine TB is widely reported in southern Tanzania. There are also reported cases of TB in game in South Africa and Namibia.

A.2.11 Tick Borne Diseases (TBDs)

Theileriosis, Heartwater, Anaplasmosis and Redwater are widespread in all SADC member states affecting mainly cattle. Economic losses due to these diseases are very high as a result of mortality, morbidity and disease costs incurred.

A.2.12 Tsetse and Trypanosomosis

Tsetse and African Animal Trypanosomosis is one of the biggest challenges for the development of the livestock industry in the SADC region especially for member states in the north: Angola, Democratic Republic of Congo, Mozambique, Tanzania, Zambia and Zimbabwe.

A.3 Production Issues

Livestock are important producers of meat, milk and eggs. They are part of the modern food chain and provide high value protein food in addition to non-food functions. For millions of smallholder farmers, animal power and nutrient recycling through manure compensates for lack of access to modern inputs such as tractors and fertilizer, and help to maintain the viability and environmental sustainability of production. Many times, livestock constitute the main, if not the only, capital reserve of farming households, serving as a strategic reserve that reduces risk and adds stability to the overall farming system. Thus, livestock satisfy a large variety of human needs.

Yet, in many places, livestock production is growing out of balance with the environment or is denied access to traditional key resources, resulting in loss of potential product. The driving force behind the surge in demand for livestock products is a combination of population growth, rising incomes and urbanization. The world population is currently growing at 1.5 percent with a growth rate of 1.8 percent in developing countries, and

decreasing to less than 0.1 percent of growth in developed countries. The real incomes of consumers in the developing countries have doubled since the early 1960s. With the exception of the 1980s, per capita GDP has grown annually by over 3 percent per year. There is a strong positive relationship between level of income and consumption of animal protein. As people become more affluent, consumption of meat, milk and eggs increases compared to the consumption of staple food. Diets become richer and more diverse, and the high-value protein that livestock products offer improves the nutrition for the vast majority of people in the world.

The increasing demand for livestock products challenges a traditional resource base for livestock production that cannot expand at the same pace. Diversity is a characteristic of traditional livestock production. A wide array of feed resources is being used, most of which have no or only limited alternative value. These include pastures in marginal lands, crop residues and agro-industrial byproducts in addition to waste from households and industrial food preparation. The scope for increasing the traditional feed resource base is limited. First, the most productive pasturelands across the world are being turned into cropland as the demand for high-potential arable land continues to increase. Likewise, degraded cropland is fallowed and reconverted into poor pastures. As a result, the overall pasture area may not change much but the land productivity is likely to be lower. Technologies that increase pasture productivity have shown impressive results in Latin America but, globally, productivity growth is marginal. Secondly, the basic principles of crop research are to optimize the transformation of land resources, solar energy and inputs into high-value products: for example, into grains. Consequently, the availability of crop residues for animal feed does not increase with rising yields. In essence, the conflict between livestock and the environment is a conflict between different human needs and expectations (IFPRI, 1995; Sere and Steinfield, 1996; Steinfield et al, 1997).

A.3.1 Principles of Livestock Environment Interactions (impact domains) Within Production Systems

To effectively describe the interaction between livestock and the environment, a description of the production systems needs to be outlined. Production systems are the physical arenas in which livestock-environment interactions occur. Production systems are agro-ecological systems, where similar combinations of market opportunities and resource endowment lead to similar production modes. Although there could be several descriptions, the following best describe the various systems found throughout the world: grazing systems, where animals get 90 percent or more of their feed from pasture; mixed farming systems, where animals get at least 10 percent of their feed from crops and crop residues produced on the owner's farm; and industrial systems, where animals get less than 10 percent of their feed from the owner's farm.

Currently, on a global level the mixed farming system produces more than half the meat and 90 percent of the milk. Most of the remaining production comes from the industrial system.

The grazing and mixed farming systems are, in principle, rather closed systems, where the waste produced is used again within the same system. This means that there is a direct incentive for the producer to utilize this waste in an environmentally sustainable fashion. Environmental problems occur when these incentives disappear. This is the case when the

system opens up. For example, when collective grazing rights deteriorate and communal grazing areas become open access areas. It is also the case when outside pressures strongly disturb the balance between nutrient inputs and outputs. These pressures can come from a growing population, as is the case in Central Africa, where the nutrient outflow is so strong that serious nutrient imbalances occur. This is called the involution of the system. It is also the case in the developed world, where the pressure from feed and fertilizer subsidies causes the use of excessive amounts of nitrogen fertilizer and feed. This leads to nutrient loading of soil and water.

The industrial system could be considered an environmentally benign system. It is an open system where most of the waste produced in the enterprise cannot be used within the same system. Without incentives and regulations, large amounts of waste (the industrial system produces about 8 billion tons of waste per year) would be emitted outside the system. However, industrial production also has advantages, most notably, in its efficient use of feed grains. In doing so, it might relieve some environmental pressure from other systems, and so save fragile eco-systems, which otherwise would be affected by the grazing or mixed systems.

However, whatever happens, there will be increased pressure by livestock production on the natural resource base in all production systems. Over the next decades, producers, livestock technicians, environmentalists, policy makers and project implementers, will face a considerable task to get the policy framework right so that the most environmentally friendly technologies are being used to satisfy the growing demand.

Also, a key lesson from the past is that social objectives (i.e. increasing farmers income) should not be coupled to mechanisms that determine market prices.

Key aspects to successful livestock programs are as follows: information and education tools, financial incentive tools, institutional and regulatory tools and property tools (de Haan et al, 1997; Young, 1996).

While the contribution of grazing systems to the world's meat supply is limited (nine percent of the global beef and 30 percent of the global mutton production), grazing systems have the most direct interface between livestock and land, water and bio-diversity, and cover the majority of the usable surface of the earth.

A.3.1.a Grazing Systems

A good understanding of the nature of grazing systems and their differences is essential. There are basically four production systems: the arid, the semi-arid and sub-humid, the humid and the temperate/highlands grazing systems.

The *arid grazing system* (less than 75 growing days) is the most extensive system in terms of areas it covers. It is probably also one of the most debated and high profile systems, as it is directly associated with desertification. Recently, a group of ecologists and sociologists

from the United States and UK have contributed significantly to a better understanding of the arid grazing system. These scientists argued that the key determinant of the arid grazing system is its variable climate, which causes the system to be in a continuous state of dis-equilibrium. Thus, for the annual vegetation, it is not the biotic pressures, such as caused by man and animals, but the abiotic factors, and especially rainfall, that determine the state of the vegetation and next year's state of resources. This dis-equilibrium theory leads to completely different policy and investment requirements.

The *semi-arid and sub-humid zones* are defined as zones with a 75 to 270 days growing season. As precipitation increases, the dis-equilibrium characteristics of the arid areas turn into a more stable equilibrium environment, and progressively biotic factors, such as human pressure and the resulting land use, define the state of the natural resources. There is a continuum from the semi-arid zones, which are generally densely populated, to the sub-humid zone savannas, which have been rather empty until recently, as their access was impeded by human and livestock diseases, such as river blindness, African sleeping sickness in men and tick-borne diseases in animals. This sub-humid zone is the area in which there are still opportunities for increased production, especially through mixed farming.

In the *humid zones* of the tropics, (a growing season of more than 270 days), rainforest becomes the climax vegetation, and livestock and grasslands mostly compete with that forest. Ranch encroachment in tropical rain forests has been the other high profile livestock-environment interaction, as it was exemplified as the case of conspicuous consumption of meat at the expense of bio-diversity.

The fourth and final system concerns the *temperate and tropical highlands* grazing system. Because of their high potential, the tropical highlands almost universally are dealing with a high population pressure, and that is why there are few real tropical grassland systems left, most having been converted to mixed farming systems. This group has to contend with extreme forms of nutrient imbalances: from the highly nutrient deficient grasslands in the East African Highlands, to the heavily nutrient surplus pastures of northwestern Europe and the eastern United States (de Haan et al, 1997).

About 150 million tons, or about one third of internationally traded agricultural commodities are livestock products or livestock feed. This international trade flow contains over 3 million tons plant nutrients, which are often shipped from nutrient deficit areas to already nutrient surplus areas, and have therefore potentially strong environmental effects. Depletion of soil fertility on one side of the globe, and nutrient loading at the other, both affecting land, water and bio-diversity, can be the results (de Haan, *et al.*, 1997; Aveling et al, 1997).

A.3.1.b Aveling et al

Aveling et al, 1997, reported the following important issues when working with livestock and wildlife:

- **Domestic versus wildlife production: Tradition and culture.** East African pastoralists are not locked into the destructive land and livestock relationships that many people assume. Nor are they romantic independents, living in perfect harmony with nature. They are skilled and knowledgeable herdsman with a long tradition of making the best of a harsh environment, increasingly forced by economic and environmental pressures to modify their traditional management systems.
- **Development:** Wildlife and livestock systems are subject to ever-increasing pressure from growing human populations and levels of consumption. In order to cope with these changes, it is essential to recognize what is valuable in traditional natural resource management systems and yet assist pastoral people to adapt to changing socio-economic and environmental conditions.
- **Production:** In the ASALs of East Africa, livestock and wildlife are the primary mediators through which humans derive usable resources from an uncertain environment, one that is characterized by dramatic changes in productivity due to patchy rainfall and resource distribution. If the goal is to maximize production from this environment while, at the same time, supporting biological and cultural diversity, wildlife and livestock can play complementary roles.
- **Cooperative resource management:** Both pastoral and wildlife management in ASALS require an area large enough for wet and dry season grazing, and range areas for viable populations of the wildlife species concerned. Such large areas are necessary to enable movement between “good” and “bad” patches over time, and to incorporate the unevenly distributed range of resources needed for both survival and production. Achieving access to such large areas normally implies some form of cooperative or common pool resources management.
- **Differential values:** In looking at production systems that combine livestock and wildlife, it is important to be aware of the different values and uses associated with such resources by women and men. In many cases men may focus on the cash and status value of livestock and women may recognize a broader set of needs related to daily family requirements and risk reduction.

A.4 Supply Chain Tables

Table D-1

Beef Demand Conditions	Countries						
		Namibia	Botswana	South Africa	Zambia	Malawi	Tanzania Mozambique
Income	2	3	3	2	1	1	1
Market Size	1	1	3	2	1	2	2
Cultural Tastes	3	3	3	3	1	2	1
Retail Development	3	3	3	2	1	1	1
Influences							
Cultural traditions	2	2	2	2	1	3	1
Empowerment	3	1	3	2	1	3	1
Legend							
	Brief Explanation of data						
	High	3					
	Medium	2					
	Low	1					
	No data	0 Lack of data					

Table D-2

Dairy Demand Conditions	Countries						
	Namibia	Botswana	South Africa	Zambia	Malawi	Tanzania	Mozambique
Income	2	3	3	2	1	1	1
Market Size	1	1	3	2	2	2	2
Cultural Tastes	1	1	3	2	2	3	3
Retail Development	3	3	3	2	2	2	2
Influences							
Cultural traditions	2	2	2	2	1	3	1
Empowerment	3	1	3	2	1	3	1
Legend							
Brief Explanation of data							
High 3							
Medium 2							
Low 1							
No data 0 Lack of data							

Table D-3

Poultry Demand Conditions	Countries						
		Namibia	Botswana	South Africa	Zambia	Malawi	Tanzania Mozambique
Income	2	3	3	2	1	1	1
Market Size	1	1	3	2	1	2	2
Cultural Tastes	1	1	3	3	2	3	2
Retail Development	3	3	3	2	2	2	2
Influences							
Cultural traditions	1	1	2	2	3	3	2
Empowerment	3	1	3	2	1	3	1
Legend							
	Brief Explanation of data						
	High	3					
	Medium	2					
	Low	1					
	No data	0Lack of data					

Table D-4

Beef Production Conditions								
Countries								
	Namibia	Botswana	South Africa	Zambia	Malawi	Tanzania	Mozambique	
Labor								
Skilled		1	1	1	1	0	0	0
Managerial		1	1	1	1	0	0	0
Unskilled		3	3	3	3	3	3	3
Technical		2	2	3	1	1	1	0
Infrastructure								
Roads		2	2	2	1	0	0	0
Equipment		1	1	2	1	0	0	0
Cold chain		2	2	2	1	0	0	0
Slaughter		3	3	3	1	1	0	0
Technology								
		3	3	3	1	0	0	0
Input Costs								
		3	3	2	2	2	0	0
Natural resources								
Land reserves		1	1	3	3	3	3	3
Natural populations		2	2	3	2	1	3	1
Genetics		3	3	3	2	1	1	1
Water		1	1	2	3	3	3	3
Climate	adaptable	2	2	2	2	2	2	2
Natural grass		2	2	2	2	2	2	2

Usable byproducts	2	2	2	2	2	2	2
Diseases	1	1	1	3	3	3	3
Legend	Subjective measure of amount and presence						
High	3 Sufficient						
Medium	2 Appears to be limiting						
Low	1 Limiting or controlled						
No data	0 Lack of data						

Table D-5

Dairy Production Conditions								
Countries								
	Namibia	Botswana	South Africa	Zambia	Malawi	Tanzania	Mozambique	
Labor								
Skilled	0	0	0	2	1	1	0	0
Managerial	0	0	0	2	2	2	0	0
Unskilled	3	3	3	3	3	3	3	3
Technical	1	1	3	3	2	3	0	0
Infrastructure								
Roads	2	2	2	1	1	1	1	1
Equipment	1	1	3	2	2	2	0	0
Cold chain	2	2	2	1	1	1	0	0
Slaughter	0	0	0	0	0	0	0	0
Further processing								
Technology	0	0	3	2	1	1	0	0
Input Costs	3	3	2	2	2	0	0	0
Natural resources								
Land reserves	1	1	3	3	3	3	3	3
Natural populations	1	1	3	1	1	1	1	1
Genetics	1	1	3	2	1	1	1	1
Water	1	1	2	3	3	3	3	3
Climate adaptable	2	2	2	2	2	2	2	2
Natural grass	2	2	2	2	2	2	2	2

Usable byproducts	2	2	2	2	2	2	2
Diseases	1	1	1	3	3	3	3
Legend	Subjective measure of amount and presence						
High	3 Sufficient						
Medium	2 Appears to be limiting						
Low	1 Limiting or controlled						
No data	0 Lack of data						

Table D-6

Poultry Production Conditions								
Countries								
	Namibia	Botswana	South Africa	Zambia	Malawi	Tanzania	Mozambique	
Labor								
Skilled		0	0	3	2	2	0	0
Managerial		0	0	3	2	0	0	0
Unskilled		3	3	3	3	3	3	3
Technical		0	0	3	0	0	0	0
Infrastructure								
Roads		2	2	2	1	1	1	1
Equipment		1	1	3	2	1	1	0
Cold chain		0	0	3	1	0	0	0
Slaughter		0	0	3	1	0	0	0
Technology								
		0	0	3	1	1	1	0
Input costs								
		3	3	2	2	2	0	0
Natural resources								
Land reserves		1	1	3	3	3	3	3
Natural populations		0	0	3	2	2	2	2
Genetics		0	3	3	2	3	3	0
Water		1	1	2	3	3	3	3
Climate	Adaptable	2	2	2	2	2	2	2
Natural grass		0	0	0	0	0	0	0

Usable byproducts	2	2	2	2	2	2	2
Diseases	3	3	3	3	3	3	3
Legend	Subjective measure of amount and presence						
High	3 Sufficient						
Medium	2 Appears to be limiting						
Low	1 Limiting or controlled						
No data	0 Lack of data						

Table D-7

Government Policy, regulation and investment		Countries					
		Namibia	Botswana	South Africa	Zambia	Malawi	Tanzania
Government							
Regulations							
	Health	3	3	3	0	0	0
	Safety	3	3	3	0	0	0
Departments							
	Health	3	3	3	0	0	0
	Veterinary	3	3	3	0	0	0
	Agriculture	3	2	2	0	2	2
	Food inspection	3	2	3	0	0	0
	Livestock	0	3	3	0	0	0
Tariffs		0	3	3	0	0	0
Subsidies		0	0	0	0	0	0
Infrastructure							
	Roads	2	2	3	1	1	1
	Air	2	1	1	1	1	1
	Ports	3	0	3	0	0	3
	Rail	1	1	1	0	0	0
Financial							
	Banks	3	3	3	2	0	0
	Donors	0	0	0	0	0	0
	Lending	0	3	3	2	2	2
	Others	0	0	0	0	0	0
Research Institutes							

Physical faculties	3	2	3	3	2	1
Faculty	2	2	3	2	1	2
Knowledge	1	1	3	3	2	2
Legend						
3	Indicates that the service is present and appears to function properly and at a high level					
2	Indicates that the service is present and is medium in quality					
1	Indicates that the service is present and is low in quality					
0	Indicates that data was not verified					

Table D-8

Development of supporting and related industries								
Countries								
	Namibia	Botswana	South Africa	Zambia	Malawi	Tanzania	Mozambique	
Feed grain		1	1	3	2	1	1	1
Transport		3	3	3	2	1	1	0
Finance		3	3	3	2	2	2	0
Biotech		0	0	3	0	0	0	0
Veterinary medicine		3	3	3	2	2	0	0
Veterinary services		2	2	3	2	2	0	0
Electrical		0	0	2	2	0	0	0
Water services		0	0	2	0	0	0	0
Industry associations		3	1	3	1	1	1	0
Feed Milling		2	2	3	3	2	2	2
Building supplies and contractors		2	2	3	2	0	0	0
Major point - Mozambique and Zambia, the presence of seaboard.								
	Legend	Brief description						
		3	Present and functional					
		2	Limited presence					
		1	Lacking or very small presence					
		0	No data					

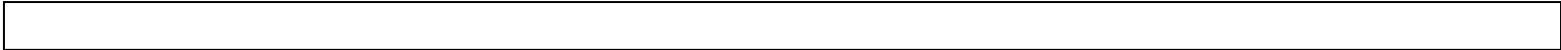


Table D-9

	Countries						
	Namibia	Botswana	South Africa	Zambia	Malawi	Tanzania	Mozambique
Corporate Strategy							
Corporate	1	1	1	1	1	1	0
Commercial	1	1	1	1	0	0	0
Emergent	1	1	1	1	1	1	1
Small	1	1	1	1	1	1	1
Legend							
	1	Present					
	0	No data					
Additional data concerning the relative percentages of these operations in each country.							
Zambia has working data.							

A.4.2 Supply Chain Summaries

A.4.2.a Poultry

Poultry operations were found in Malawi, Tanzania, Zambia, Botswana and South Africa. The operations in South Africa appear to be further advanced in development as compared to the other countries. The operations in Botswana are large commercial types but the feeds are imported to the region. Additional work in Botswana in which the operations were fully analyzed for cost efficiency is needed. The reason is that Botswana may be better adapted at strategic alliance with another country in which Botswana actually becomes a financial arm for the country and an outlet for product. Additionally, money has been invested in a smallholder poultry program.

Poultry operations work well for gender issues. It is customary for the women to care for poultry and to work in the processing.

The industry is well suited for the increased participation of small and medium enterprises. It appears that the eastern region of Southern Africa is best suited for poultry expansion since that is where most of the natural assets are located. Furthermore, there is investment by major corporations and financial institutions such as IFC.

A.4.2.b Leather and beef

There are components to the leather section throughout Southern Africa. The difficulty is determining the flow of the hides and skins. It appears that the overall industry is extremely fragmented, although there has been an effort by the Eastern and Southern Leather Association which is partially funded by UNIDO and CDC. Because of the immediate benefits that investment in this sector would bring to the region, immediate attention needs to be given to capturing value for the leather sector. Interestingly, there are tanning facilities in Malawi, a country that has the fewest number of animals in the region. In contrast, there appears to be a lack of infrastructure in Tanzania which has the largest animal population. There is an active association in Tanzania that is interested in AGOA. Botswana, Namibia and South Africa have structure to the leather industry. However, Botswana may be losing export potential because of the primary shipment of hides in the wet blue stage to Italy. Namibia appears to be trying to capture value in both cattle and exotic hides. Another loss in hide value seems to occur in South Africa. There is a primary market for hides in the automobile industry that only utilizes the top 2 mm of the hide and the remaining hide is discarded. This discarded portion could be used in the manufacture of footwear and other leather products which has an AGOA advantage. In general, the United States largely imports shoes from other countries such as China.

The three countries with the most advanced international value chain are Namibia, Botswana and South Africa. South Africa is working towards a similar integrated structure as found in the

United States. Interestingly, Zambia may actually have a more integrated industry than either Botswana or Namibia. In fact, Zambia is at the point that the incorporation of SME operations in the next logical step of progression. Zambia is aggressively entering the market where they have product that fits the need of locals, such as Malawi and interior Africa. Export trade may be possible for Zambia if a suitable market can be identified and transportation issues are overcome. Botswana and Namibia have a better distribution system for international export. It seems that there is an asset with the Botswana Meat Commission that is being under exploited because of the extensive international marketing chain that they have. An alliance of Botswana, Namibia and South Africa could lead to large exports of specialty beef if the countries would consume product produced from the region. This is a possibility that needs to be reviewed. Tanzania, Mozambique and Malawi lack infrastructure. Both Tanzania and Mozambique have limited slaughter facilities with limited cold storage capacity. However, both countries have excellent ports for export. Tanzania appears to have no food safety structure. Malawi has functional slaughter facilities. Through out the supply chain in each country there is fragmented informational flow. To improve efficiency of the chain and increase industry output communications have to be improved with improved smallholder participation, a self-sustaining market information system, improved transport and more training. Effective linkages with SME operations would result in increased communication and production. Review of the hides and skins is in the leather section.

A.4.2.c Dairy

Botswana has expressed an interest in expanding productive facilities. However, it is not justifiable given the natural resource situation. There is a water and feed problem to the south of the country. It is possible that units could be developed in the north and milk products shipped to the Gaborone area. Addition time needs to be spent evaluating this sector and it needs to be compared to a long-term relationship with South Africa. Namibia has a similar situation through the central part of the country, a lack of water and feeds. However, there are a few dairy operations near Windhoek. Expansion in Malawi, Tanzania and Zambia of dairy projects is recommended. These areas hold tremendous potential. Furthermore, Land O'Lakes has a dairy program in each of these countries. Each of these countries has large processing capabilities, which is important for adding value. The critical tie in with the LOL project would be for the leather program and gender related issues. LOL has developed a useful model when working with a large number of producers in an industry that needs value added. Thus, there appears to be a tie in with the leather program that is discussed later and the dairy industry.

B. Country Summaries

B.1 Zambia

The reduction in cattle numbers in recent years as a result of corridor disease and CBPP has led to a significant decline in the use of oxen for land preparation. More often than not, smallholder crops are poorly weeded, which can lead to yield reduction through competition for available soil moisture and light, and through the harboring of pests and disease.

B.1.1 Livestock and Pasture

Cattle numbers in Zambia show considerable annual fluctuations and have been continuing a downward trend and falling steadily over the last three years. This is mainly the result of disease, but drought has also played a part. Mortality from corridor disease (East Coast Fever) has been high in the east and center of the country, to the extent that some authorities believe that the only surviving herds in their districts are those that are regularly dipped or sprayed by their owners. The difficulty of controlling Corridor Disease has, in recent years, been exacerbated by drought since water is needed for dipping or spraying the cattle

Contagious bovine pleuro-pneumonia (CBPP) is thought to have entered Western Province from Angola around 1997 and is also present in Northern Province where it may have been introduced as a result of the movement of cattle across the border with Tanzania. A ban on the movement of live animals along the main road from Western Province has so far prevented the disease from reaching Central and Copperbelt Provinces. However, the disease has entered the northwestern area, which is used by owners as an alternative un-patrolled route to move their stock.

Anthrax is also prevalent in Western Province, where a number of cattle deaths (and some human fatalities from eating infected meat) are reported each year. Foot-and-mouth disease is prevalent in Northern and Eastern Provinces and cases of African swine fever have been reported in Eastern Province.

During the recent dry years there has been a significant movement of cattle out of Southern Providence to areas with higher rainfall and better pasture. The slightly better rains this year may slow this trend, even if only temporarily.

Newcastle Disease has caused high mortality in poultry, with some districts, such as Serenje, reporting up to 75 percent flock loss, which impacted negatively on poultry production. Poor quality stock feeds and infrastructure, as well as ineffective marketing strategies also adversely affected poultry production.

- Zambia's prime livestock growing areas are in the Western Province.
- The national herd is approximately five million head of cattle.
- The country has 10 million hectares of land available for grazing.
- There are disease-free regions suitable for ranching premium cattle and raising livestock.
- Zambia has a fledging export industry in day-old chicks and other poultry products as well as suitable land for raising sheep and goats for export.
- Commercial fish production is approximately 70,000 tons per year. The sector is constrained by inadequate quality fingerlings for the development of aquaculture, lack of input supply, such as nets and boats, particularly in remote fishing areas, unreliable transport and poor storage facilities.

- In order to improve fish production, government efforts are supplemented by the private sector which invested in fish marketing and distribution, fish farming, and manufacturing of nets and boats. In addition, government is working closely with the donor community to implement programs aimed at developing management strategies for the fishing sector.

Sixteen million hectares are appropriate for animal grazing and 9 million hectares for cultivation. However, only about 2.9 million hectares are currently used for production mostly in southern, central and eastern provinces. Production is affected mostly by rainfall amounts and distribution of inputs but potential for irrigation and improved input distribution channels exist.

Total Non-Traditional Export earnings in 2000 were approx. \$263 million. Total export earnings were \$800 million. Small-scale farmers largely hold the national livestock herd in the southern and western provinces. The government expects cattle numbers to regain the 1990 figures by the year 2005 after losses that were experienced during outbreaks of disease. At present there are some 2.3 million cattle, compared to well over 2.7 million in 1990. The government intervenes in the fishing sector only to manage the issuance of licenses to slow the over-exploitation of fish stocks. The catch rose from 40,000 tons in 1982 to 70,000 tons in 1994. Half of the land area in Zambia is covered by forest with a few commercially exploitable species; indigenous forests are sources of sawn timber, poles, mining timber, and fuel wood.

B.1.2 Trade Barriers

A small number of goods may be imported into Zambia duty-free. These include medicines, pharmaceuticals, veterinary and medical equipment, chemicals in bulk, fertilizers, seeds, etc. Most goods fall into one of three tariff bands: 5 percent (selected raw materials and capital equipment); 15 percent (intermediate goods); or 25 percent (final products). Duty on productive machinery for agriculture and mining is zero percent. Selected items attract alternative specific duty rates that are protective taxes. These apply on vegetable cooking oils and soaps.

B.1.3 Import Licenses

No import licenses are required for general importation into Zambia. Certification must be obtained for the following imports: meat/poultry (Veterinary Department); plants (Mount Makulu Research Station); food and drugs (Ministry of Health); firearms and ammunition (Zambia Police). Ivory imports are banned.

B.1.4 Finance

Financial analysts that specialize in the Sub-Saharan region rate Zambia in the top seven destinations for foreign direct investment. Since 1995, it has managed to attract an average of \$160 million a year in FDI, and this figure is expected to reach \$300 million a year with the sale of the copper mines.

B.1.5 HIV/AIDS

The HIV/AIDS pandemic continues to adversely affect the economy by reducing the active labor force and increasing the number of orphans. In Zambia, HIV/AIDS is predominantly an urban problem since the infection rate (11 percent) for the rural population is less than half that (23 percent) for the urban population. The FAO Mission was told by the local extension staff that at the district level efforts are being made to identify the affected and provide them with free milled grain. The affected have no strength or resources to take the grain to the mill or mill it themselves by pounding at home. More balanced and energy enhancing food, free seed packs and counseling among other assistance are being organized.

One of the postulated impacts of HIV/AIDS on agriculture is the loss of productive labor. It is assumed that households affected by HIV/AIDS would tend to leave uncultivated land normally under production as a result of a household labor shortage. In the April 2003 VA, respondents were asked whether during the last growing season they left land uncultivated that was usually cultivated. Some 63 percent of households stated that land was left uncultivated. These households were then asked why they left and uncultivated. Responses were elicited as affirming or rejecting each of several possible answers. The four most common reasons given by these households for leaving land uncultivated was “lack of labor” (41 percent), “lack of money to hire labor” (33 percent), “unavailability of animal draught power” (33 percent) and “lack of fertilizer” (29 percent). There was a significant difference between households who reported the death of a chronically ill adult and also reported a lack of labor as reason for limiting cultivated land (25 percent) compared to households who did not lose an adult member and gave the same reason (13 percent; $\bar{n} = .002$). However, no such association was found among households reporting a chronic illness among its members. The fact that the death of an adult has an association with labor deficits, while the presence of a chronically ill person does not, suggests other causative reasons. First, it should not be forgotten that the staggeringly high HIV/AIDS rates in Zambia are largely an urban phenomenon. Much lower rates occur in rural areas, no matter which year’s prevalence data are assumed to be “correct.”

Due to increased expenses and reduced incomes, it is also reasoned that rural households affected by HIV/AIDS will have less resources available for agricultural inputs (chemical fertilizer, seeds etc.). Households with a chronically ill adult were significantly more likely to indicate a lack of fertilizer as a reason for leaving land usually cultivated, uncultivated. Disturbingly, households with a chronically ill adult were significantly more likely to remove a child from school (15 percent) compared to households without a chronically ill adult (nine percent). Even more significant is the fact that households that have taken in orphans are more likely to remove children from school (23 percent versus seven percent). Efforts that emphasize conservation farming, including minimum tillage operations, the development of new laborsaving technologies (see for instance the wipe-weeder), and the development of new varieties of crops, should all be supported. Such efforts will mitigate the impact of HIV/AIDS in rural areas by assisting households affected by HIV/AIDS to become more food secure (FAO, 2003).

B.1.6 Assistance and Models

Land O'Lakes: This is a USAID funded program and the first component of this program was to increase milk and milk product consumption. They are working with 16 t 18 processors which are located near production centers. The biggest challenge indicated the lack of technical expertise at all levels.

Technical Assistance Group (TAG): Funded by the Belgian and Dutch governments, the goal of the program is to develop a training program for the producers. The program was implemented after the governments decided that there was little value to the return on investment from previous programs. The core concept is a training concept that will be passed onto the people. Additional time needs to be taken to investigate linkages and partnering opportunities. There may actually be two or three programs tied into this and that technical assistance is welcome. This program is tied to the LOL program. It also has a tie back with various government officials. The TAG program has a beef, dairy and swine component as well as a crop component. The goal is to become self-sustaining in which 60 percent is practical training and 40 percent theory. The program is looking to expand into the Copperbelt region. Training and marketing were given as the two biggest constraints to business. One of the goals was to develop a tie with out grower type schemes. There is interest by a local feed company in the program. This would be a good program for possible intervention.

Zamtie: The Eastern Providence had requested that Zamtie assist in developing a business plan for the cattle sector. This was being conducted in assistance with J.E. Austin and Associates and a local veterinarian. After brief discussions there appears to be opportunities for interaction and technical assistance. The Eastern Providence program is to be a pilot program for the country in marketing. Further follow-up is required to determine interactions. There appears to be regional synergies with small animals and poultry. Training programs is one of the biggest constraints.

B.1.7 Livestock information:

- Cattle: 2,488,626
- Sheep: 150,000
- Goats: 1,270,000
- Horses: 917
- Pigs: 340,000
- Donkeys: 1,704

Crossbreeding is encouraged in the dairy beef to improve milk yields and disease resistance. This has been implemented in the commercial sector.

The livestock sector productivity in Zambia is constrained by a general failure to improve animal husbandry practices among smallholder farmers. The result has been significant outbreaks and spread of animal disease, almost on a regular basis from year to year. Among smallholder

farmers the productivity of cattle is characterized by slow growth rates (e.g. five to eight years to reach market weight), high calf and adult mortality rates (e.g. 25 percent and 9 percent, respectively) and low reproductive performance (e.g. low calving rates and long calving intervals). The smallholder growth rate is estimated at three percent with an average off-take of eight percent. In sharp contrast, livestock productivity within the commercial sector is better with low calf mortality (one percent), high reproductive rates (e.g. 65 percent) and an off-take of 18 percent.

There is a problem with the amount of variation in the data available for the livestock sector. Often times sources varied tremendously and occasionally the two sources would report opposite trends. There is even a lack of data in certain areas. For example, reliable data during the late 1990s for the commercial feeding sector in South Africa is very limited. Therefore, there is a need for reliable and verifiable data.

B.1.8 SWOT Analysis

<p>Strengths</p> <ul style="list-style-type: none"> • Initial base of cattle • Traditional understanding of herding • Climate is such that grass and forage will grow • Byproducts available • Semi- infrastructure • Commercial operations • Costs • Location • Supermarket chains • Abundant water supply • Strong internal market 	<p>Weakness</p> <ul style="list-style-type: none"> • Small sector views stock as wealth accumulation • Small sector does not understand business practices • Limited GAP practices • Education (training) is limited • Roads • Land locked • Age of animals at slaughter • High incidence of HIV/AIDS • Small holders sell about seven percent of inventory • Disease • Animal nutrition • Genetics • Lack of foreign direct investment
<p>Opportunities</p> <ul style="list-style-type: none"> • Export to DRC, Malawi, Mozambique and part of Tanzania • Expansion of output • Training facilities • Leather products, “niche” hides, furniture, and chews • Current skill sets • Dairy expansion • Foreign direct investment by the supermarkets and other multi- national corporations 	<p>Threats</p> <ul style="list-style-type: none"> • Expanding poultry market to decrease beef consumption • Zimbabwe fall out • Diseases in various sections • Cheap imports (dumping)

B.1.9 Conclusions

- Leather plan
- Assist in market development studies and introductions
- Furniture, chews and skins (niche)
- Participate in public/private sector training centers
- Develop a training program
- Expansion of meat market into Congo Malawi and Mozambique
- Eastern Providence Plan with the Business Chamber of Commerce. This area has many small producers.
- Develop in-depth sector analysis for the livestock industry with additional emphasis on poultry, dairy and meat consumption
- Dairy plan
- Goat program or extension services
- Information, marketing link
- Develop a marketing database and web page
- Work to develop a monitoring program.

B.2 Mozambique

Mozambique has excellent climate and land conditions for the development of livestock. Livestock population throughout Mozambique declined sharply in the 1980s because of the civil war and collectivization policies. The rearing of cattle, pigs, goats, rabbits and poultry has great potential as the existing supply does not meet domestic demand, with significant volumes of meat, poultry and dairy products currently being imported, mainly from South Africa and Europe. Local production covers only a small fraction of the existing market demand. The government has given priority to the introduction of animal stock extension and rearing programs. Of particular need in the immediate short term are investments in poultry and pig production and the supply of feedstock to these industries. The fisheries sector is a major player in the economy accounting for 43 percent of exports and around five percent of GDP. Development of the sector has seen catches rising more than 13 percent a year since 1997. The sector has both industrial and small-scale fisheries and employs up to 100,000 people, 90 percent of whom are involved in fish processing and marketing activities. Mozambique has a potential catch of fish and shellfish of some 300,000 tons a year.

The Mozambican fishing fleet is limited, although there are a number of direct licensing schemes and joint venture companies with Japanese, Spanish, Portuguese and South African fishing firms. Mainly these companies harvest prawns and shrimp. The government announced several measures in 1999 to stimulate local processing and development of the semi-industrial sector in which Mozambican capital is predominant.

Aquaculture in Mozambique is in its infancy and its future development is a top priority for the government, especially of shrimp aquaculture. The first major foreign investment came from the French firm Aquamar, Lda which is currently managing a prawns and shrimp farming operation at Quelimane, Zambezia province. Opportunities also exist for the culture of oysters, mussels, algae and pearls.

Other export species include crayfish, shrimp, fish, and langoustine. Mozambique exports primarily raw fish. The government strategy is to promote the value-added in this sector and it thus welcomes foreign investors who can provide semi-industrial shrimp vessels as well as installations of processing plants. Furthermore, Mozambique needs to improve its services to the fishing industry. Opportunities exist for the manufacture of rope, steel cable, marine engineering consultancies, and marine electronics.

Mozambique's gross domestic product (GDP) in 2002 stood at \$2.81 billion at current market prices, to which agriculture and fisheries contributed 20.7 percent. Other sectors of the economy include services (54.4 percent), construction (11.7 percent), manufacturing and mining (11 percent) and electricity and water (2.1 percent). The economy has registered high growth rates over the past few years. This trend is predicted to continue at around nine percent in 2003/04. The rate of inflation currently stands at seven percent and this is forecast to fall to five percent in 2004. The value of the meticaïs has also held firm against major currencies after a sharp depreciation in 2000. The current market rate stands at 24,000 meticaïs to the U.S. dollar, compared with 23,500 meticaïs/U.S. dollar in 2002 and 22,000 meticaïs/U.S. dollar in 2001.

B.2.1 Agriculture

Forty-five percent of Mozambique's total land area of 789 800 km² is suitable for agriculture, but only 11 percent is utilized. Agriculture employs more than 80 percent of the labor force and provides livelihoods to the vast majority of over 18 million inhabitants. It is also an important source of foreign exchange earnings. Mozambique has diverse climatic conditions influenced by latitude, variations in altitude, topography, and coastal or inland locations. It also has diverse soils that are suitable for a wide variety of crops and livestock.

B.2.2. Livestock

Livestock production consists of cattle, goats, pigs, sheep and poultry (chicken and ducks). The agricultural census of 2000 revealed that there were 700,000 cattle concentrated in the center and south and five million goats concentrated in the center. Pigs were estimated at 2,397,493 and sheep at 174,096. Poultry is widely distributed throughout the country.

Pasture condition has deteriorated over the last two years and water sources for animals are drying up. This is combined with an outbreak of foot and mouth disease in districts bordering Zimbabwe. As a result, a significant number of animal deaths have been registered. At the same

time that animal production is worsening in districts with a cereal deficit, the terms of trade have also worsened, sometimes to the point that farmers in some of these locations are substituting maize with rice. Ownership of animals is correlated with wealth in these zones. Better-off households, which account for about 20 to 30 percent of the population, are able to sell additional animals to purchase food, while the poorer groups, comprising from between 40 to 60 percent of households in these areas, have no animals or other kind of marketable asset to exchange for food.

B.2.3 HIV/AIDS

Specialized reports indicate that Mozambique has the tenth highest HIV/AIDS level in the world. Approximately 1.4 million people are infected with 13 percent of people between 15 to 49 years living with the virus. Nationwide, over 500 new infections occur everyday and an estimated 220 people die from related causes. Gaza Province, which has suffered from repeated natural disasters, has the highest infection level in the country at 19 percent. Local leaders consistently informed the mission of rising numbers of deaths and the consequent increase in households with numerous dependents as children are orphaned in food insecure districts of southern Tete and northern Manica provinces, both of which share the border with Zimbabwe. Although hard to quantify in the absence of statistically valid samples, the local authorities are reporting increasing numbers of households with chronically sick parents seeking community or public support.

While HIV/AIDS and the associated chronic illnesses affect the ability of households to sustain themselves, the nutritional conditions of these families is also being seriously challenged. Drought conditions over the last two years have deteriorated already fragile conditions of these households, including a reduction of sources of safe water, as well as a lack of food (FAO, 2003).

Exports of cotton and other agricultural commodities, seafood, minerals, electric power, and natural gas and related industries, hold promise of growth. Major export-related foreign investment projects in aluminum, steel, minerals, fertilizer, and sugar are planned, and promise to positively affect the trade balance.

B.2.4 Land Tenure

As part of Mozambique's traditional culture, in which land was held in common by villagers, as well as its socialist legacy, land is owned by the state. It in turn leases parcels to individuals and companies for up to 50 years, with an option to renew. The system is designed to protect smallholder agriculture, and allow time to settle land disputes. Three-fourths of the population still derives their livelihood from the land, and land rights are a politically sensitive subject. However, the leasehold system has spawned corruption, especially in the cities. It now hinders urban growth and investment, since land cannot be used as collateral to finance further growth. It is also an impediment to the formation of a rural credit market, because small holders have no collateral to offer for loans to improve their land or production capacity. This lack of a rural

credit market has in turn inhibited the spread of financial institutions beyond the well-developed Maputo market. Small cities often have one bank, offering prohibitively high interest rates to a captive agricultural market. While family agriculture has largely recovered from the war years, commercial agriculture continues to encounter more difficulties than other sectors of the economy. Public ownership of land has avoided Zimbabwe-style land disputes in Mozambique, although squatters do occasionally occupy unused land when there is a perception that the government is allocating land plots too slowly.

B.2.5 Trade Opportunities

Mozambique offers trade opportunities in the energy, mining, fishing, timber, tourism, and agriculture (cashews, cotton, and sugar) sectors. United States suppliers of capital equipment, and providers of construction and business services should consider these areas first.

B.2.6 Commercial Fishing Equipment (CFE)

Seafood has been Mozambique's largest export for many years, at approximately \$70 million per year. An unofficial 1995 World Bank study suggested that Mozambique's fish exports might be seriously underreported. Industrial fishing is performed under licenses owned by joint ventures between local Mozambican companies, and Spanish, Portuguese, Chinese, and Japanese partners. Demand exists for marine engines; fishing vessels, vacuum packaging, and cold storage/refrigeration.

B.2.7 Food Processing and Packaging Equipment (FPP)

As Mozambique's agricultural production increases, opportunities for food processing and packaging should grow. Local companies have indicated interest in canning, packaging, and vacuum packaging equipment. Beverage production (soft drinks, beer, and milk) has increased. A Portuguese pharmaceuticals company recently announced its intention to build a \$14 million plant in Maputo. A second long-life milk factory has been established in Maputo, and there are plans to open an associated dairy. The number of poultry farms and cattle producers is expanding.

B.2.8 Agriculture and forestry

Mozambique has large tracts of uncultivated arable land. Total arable land is 36 million hectares; around 4 to 5 million acres are under production. Total productive forestland is estimated at 20 million hectares. A few foreign-owned firms maintain commercial farming or forestry operations, concentrating mainly in cotton, copra, sugar, citrus, maize, and timber. The largest firms are Lomaco (Lonrho of the U.K.), João Ferreira dos Santos (JFS of Portugal), Entrepuesto (Portugal), and Grupo Madal (Luxembourg/Norway). Negotiations are underway with British, Mauritian, and South African companies for the sale of a number of sugar plantations and refineries in need of rehabilitation. An uncertain land tenure system has slowed the development of commercial agriculture.

B.2.9 Privatizations

Flour mills (to Namib Mills of South Africa, Seaboard Corporation of the U.S., and JFS of Portugal) and breweries in Maputo and Beira (to South African Breweries) are the main operations being discussed.

New regulations governing the Investment Promotion Center (CPI) have made the investment approval process automatic within 10 days, if no objections are voiced by the relevant ministries; the provincial governor for investments under \$100,000; or the Minister of Planning and Finance for investments between \$100,000 and \$100 million. The Council of Ministers must review investments over \$100 million and those involving large tracts of land (5000 hectares for agriculture, 10,000 hectares for livestock or forestry projects). The Council has 17 working days to voice an objection before approval becomes automatic.

U.S. investor interest has been growing for several years. In 1996, Seaboard Corporation (Kansas) purchased a state-owned flourmill in Beira under the country's privatization program.

B.2.10 Other Issues

Agriculture, fishing, and food industry imports totaled 25 percent of total merchandise imports.

Zimbabwe is the largest destination for Mozambican exports, with 19 percent of the total. Spain (15 percent), South Africa (17 percent), Portugal (8 percent), and India (seven percent) follow. Exports to Zimbabwe grew five-fold over those in 1997, reflecting the collapse of Zimbabwe's agricultural economy and increasing imports of bulk electric power. Exports to Spain (primarily fish and seafood products) fell 14 percent due to a lower shrimp harvest in 1998, a consequence of over-fishing in 1997. Though showing a decrease of 9 percent from the previous year, agriculture, fishery, and food products still accounted for almost three-fifths of Mozambique's merchandise exports (Mozambique Country Commercial Guide FY2001).

There are 36 million hectares of arable land, 46.4 million hectares of forest with only 4 to 5 hectares cultivated (15 percent). There are extensive range resources for both cattle and small stock. The major problems identified are animal health, management and credit are constraints.

This was a centrally planned economy that disastrous affects of the commercial livestock industry. Furthermore, the war also had a negative affect on the industry. There is a small livestock population with a lack of commercial livestock producers. There appears to be no interest in the development of the livestock industry. Overall, there is a lack of understanding of how livestock can contribute to wealth (FAO, 1996). This country could benefit greatly with implementation of a dairy and poultry smallholder development program. There may be several

byproducts available from an edible oil refinery. The climate is very conducive to cattle production, and is primarily a cow-calf sector.

B.2.11 SWOT analysis

<p>Strengths</p> <ul style="list-style-type: none"> • Land availability • Rainfall in some areas (water availability) • Smallholder is extensive • Supermarket chains • Sugar industry which will have byproducts for the livestock and poultry sector • Work force, disciplined and highly sought after by surrounding countries • Cheap and abundant production factors • Access to ports • Short distance to inland countries • South African is a trading partner • Foreign direct investment by international grain trading companies 	<p>Weakness</p> <ul style="list-style-type: none"> • No infrastructure for the meat industry • Limited (actually none) commercial operations • Disease • No supply of animals • No quality standards • No grades and standards systems • High incidence of HIV/AIDS • Lack of agro-processing industry • Limited byproduct usage • Land issues • Lack of foreign banks • Government institutions • Lack of slaughter facility
<p>Opportunities</p> <ul style="list-style-type: none"> • Land for production of forages and feedstuffs • Land for expansion of livestock and poultry operations • People to consume the food • Tourism will increase the demand for high quality foods • Grass species that will result in good livestock production • Sugar industry byproducts • Port access • Diversification with dairy and poultry 	<p>Threats</p> <ul style="list-style-type: none"> • Diseases, Tsetse Fly, FMD, vaccination programs • Lack of technical knowledge • Lack of roads and rail systems to transport live, chilled and frozen meat • Meat from SA and Zambia • Next to Zimbabwe • Water availability

- | | |
|--|--|
| <ul style="list-style-type: none"> • Supermarket revolution has reached the country | |
|--|--|

B.2.12 Conclusion

- Sustainable growth has small, rapid potential
- Great opportunity for long-term management and growth of the commercial sector
- Smallholder poultry and dairy diversification
- In depth sector analysis needs to be conducted (fisheries, poultry and dairy)

B.3 Tanzania

Livestock production makes up around 30 percent of agricultural GDP. About 40 percent of that comes from beef production, 30 percent from milk production and the other 30 percent from poultry and small stock production. Commercial ranching accounts for around two percent of the total cattle herd. The National Ranching Company (NARCO) has dominated commercial ranching. However, it is presently in the process of being privatized.

The national cattle herd is primarily short-horn Zebu and number approximately 13.4 million. Roughly 13 million are indigenous stocks, with 237,000 dairy cattle and 121,000 in commercially managed beef herds. In addition, there are an estimated 9.7 million goats and four million sheep. There has been rapid growth in poultry and egg production.

- Cattle: 16,400,000
- Sheep: 4,250,000
- Goats: 10,700,000
- Horses: 2,048
- Pigs: 355,000
- Donkeys: 10,700,000

Livestock numbers have been increasing steadily in recent decades with most of the livestock products are sold domestically. The government recognizes the need for this sub-sector to be developed, particularly dairy product, and for meat processing to meet domestic demand and create export opportunities. While encouraging private investment, the government is also concentrating on providing core services to support further development of the sub-sector. Carrying capacity of Tanzania rangelands is estimated at 20 million animal units. Presently there are only 16 million animal units, denoting good potential for further expansion. Tanzania has abundant freshwater lakes (6 percent of the total mainland area) with substantial fish resources. In addition it has an 800-kilometre coastline with a narrow continental shelf. Freshwater fisheries account for more than 80 percent of the landed catch. An estimated 60,000 people are employed as full-time fishermen, while another 30,000 are engaged in part-time fishing and fisheries-

related activities, such as fish processing, marketing, distribution, net-making, marine engine repair, boat-building and other activities.

Tanzania owns about 50 percent of Lake Victoria, 45 percent of Lake Tanganyika, 20 percent of Lake Nyasa and several minor lakes, dams, reservoirs, swamps, rivers and small ponds suitable for aquaculture. The major fish species caught are sardines, Nile perch, haplochromis, catfish and tilapia.

Regarding marine fisheries, in line with the provisions of the International Law of the Sea, Tanzania makes a distinction between territorial waters (12-mile limit) and Exclusive Economic Zone (200-mile limit). Traditional methods are still used on the inland lakes, but modern fishing techniques are also employed in the coastal waters.

There are significant opportunities for investors to establish fish processing plants, crustacean fisheries, and deep-sea fishing.

Representatives of meat companies expressed concerns about the source of meat for various government (donor) agencies. It was directly mentioned to these companies that they could import beef and other meat products cheaper from the EU than to buy directly from sources within the country or even adjacent countries.

The Muslim population does not consume pork products. Furthermore, this requires additional marketing to insure that pork is not mixed with beef and poultry products.

There is a strong demand for beef and poultry. There is a lack of formal training and financing for the meat industry. There appears to be additional programs nearer production areas that should be investigated. Market studies and more in-depth analysis are needed. Priority areas can be identified from the studies.

There are four million hectares available for farming opportunities and ranks number 3 in livestock numbers within Africa. It appears that the country does not fully understand animal nutrition.

The leather industry appears to have collapsed with many of the hides going to Kenya.

Most of the meat is consumed fresh and little goes into a cold chain or frozen category. Most of the supermarkets and hotels import from either Kenya or South Africa. There is an expressed need for local suppliers.

Agriculture is the mainstay of the economy for Tanzania. Its contribution in terms of aggregate growth, exports, employment, and linkages with other sectors is significant. Although the rate of

growth for the agricultural sector was only 4.1 percent in 1999, the economy continues to be dominated by agricultural production, which accounted for approximately 49 percent of GDP (1999). Output remains predominantly based on small-holder production. Agriculture supports 80 percent of Tanzanians and government officials believe that a sustainable growth rate of at least five percent in agriculture will have a significant impact on poverty reduction. Following the liberalization and de-regulation of the sector, the government has withdrawn from production, marketing and processing of agricultural products. The government also has withdrawn subsidies and reduced public investment in the sector. Investment in the agriculture sector will need to come from the private sector. The government has attempted to expand and improve the economic and social infrastructure, create appropriate institutions and provide a regulatory framework that would encourage the private sector to bring capital, technology and management skills into the agricultural sector. The anticipated private sector response (including small, medium and large scale farmers and agri-businesses), however, did not materialize, and the vacuum created as a result of government withdrawal is yet to be filled.

Lending to this sector is minimal because the legal framework does not allow farmers to use land as collateral. Only five percent of Tanzanian farmers obtain credit outside family sources in any year.

Estate cultivation is centered on sisal, sugar, tea, and to a lesser extent coffee, tobacco, rice, wheat and wattle.

Traditional exports such as coffee, cotton, sisal, cashew nuts, cloves, tea and tobacco remain the pillars of export income generation. The Tanzanian government recently has placed a great deal of emphasis on agricultural export diversification, stressing the switch from traditional to non-traditional exports such as horticultural products, spices, fishery products and manufactured goods. In his budget speech of 1999/2000, the Minister of Finance announced zero tariffs for imported agricultural machinery and inputs as a measure to boost the agricultural sector. In his budget speech of 2001/2002, the Minister of Finance announced reduction of the land rent on commercial farms by one third to encourage expansion of large-scale farms. The government is in the process of finalizing the Agriculture Sector Development Strategy. The needs of the sector include commercialization of agricultural production, intensification of production, ensuring food security, and export promotion (Tanzania Country Commercial Guide FY2001).

B.3.1 Assistance and Models

Land O'Lakes: This is a USAID funded program that is targeting small-scale producers. The technical objectives are feeding, management and milking. They have offices in Arusha and Kilimanjaro. The program has concentrated in marketing and promoting milk intake. There is a large processing capacity that is under utilized. The Livestock Minister supports this program. There are limited commercial operations in the country. There are several byproducts that are not being utilized. There is no representation of suppliers to the industry. There are partnering opportunities with LOL. This can be a strong technical assistance group.

Danida : A program sponsored by the Ministry of Foreign Affairs of Denmark. The goal of the program is to support the establishment of commercially based partnerships between Danish companies and companies in selected countries. These companies can apply for advice and funds to facilitate cooperation between their company and a company in Denmark. The objective is to contribute to economic and social development. This program seeks to create long-term business linkages. The program has divided projects into a preparatory phase and a project phase. The program is open to all businesses within the development country. The only limits to the program are that a Tanzanian must be involved in the program. There are several successful programs in the country and the administrator is welcomes additional involvement. They feel that there are unlimited opportunities in fishing and agriculture. Training was identified as one of the biggest constraints. This program helps overcome the financing problems. There are several areas of collaboration, both technically and financially.

IFC: Funded a smallholder poultry program as was deemed successful. The downside of the program is the lack of slaughter facilities and the lack of understanding by the producers that the market place is changing, requiring that slaughtered birds .

B.3.2 SWOT Analysis

<p>Strengths</p> <ul style="list-style-type: none"> • Natural resources, grass, water, byproducts • Large cattle population: 17+ million head • Direct route to central Africa (DRC and Burundi) • Large meat consuming population • Developing supermarket industry • Traditional herders • Had a successful small holder poultry program 	<p>Weakness</p> <ul style="list-style-type: none"> • Disease • Infrastructure • No grades and standard system • 3.5 million farms • Lack of transaction transparency • Traditional herders • Muslim population which influences meat slaughter practices • Limited cold chain and refrigeration • Transport • Knowledge lack of technical capacity • High incidence of HIV/AIDS • Economies of scale • No grades and standards system • Limited sanitation programs • Financing programs • Central government is in Dar es Salaam and production is on other areas • No organized producer association • Lack of private-public sector communication • Lack of large-scale investment • No marketing strategies • Seasonality
<p>Opportunity</p> <ul style="list-style-type: none"> • Tie into Mwanza infrastructure • Cash flow from Milk • Smallholder poultry program 	<p>Threats</p> <ul style="list-style-type: none"> • Poor Government • Too many taxes • High Entry Costs

<ul style="list-style-type: none"> • Developing supermarket chain, supermarkets and hotels need a source of high quality protein • EU approval of the Mwanza lake facilities for fish exports • Danida, partner with other projects 	<ul style="list-style-type: none"> • No exit strategy • Kenya Influence • Indian and Arabic influx • Lack of transparency • Knowledge • No grades and standard program • No reputable food safety agency or program
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B.4 Namibia

Livestock production plays a dominant role in the agricultural farming system and within the sector as a whole. Farming in the central northern plateau (cattle and mixed stock) and the arid south (mutton, goat, karakul sheep and ostrich) normally contributes 80 to 90 percent of the value of commercial agricultural production depending on rainfall. Commercially marketed cattle are either exported live to South Africa or slaughtered locally. Abattoir capacity has been expanded to take advantage of the countries potential for beef, lamb and goat exports. The government's intention is to add value through increased local processing of livestock. Namibia has several EU approved abattoirs and is in the process of upgrading the other abattoirs to meet regional and international market demands. Beef is the single largest contributor to agricultural GDP and export earnings. South Africa is the country's main export destination, although the European Union is becoming an increasingly important market.

- Cattle 2,100,000
- Sheep: 2,200,000
- Goats: 1,700,000
- Horses: 63,000
- Pigs: 18,000

Farmers in Namibia represent two main sectors, commercial and communal, and approximately 51 percent and 33 percent of the arable land is available for cattle and small-stock farming respectively. The main cattle breeds are Brahman, Bonsmara, Afrikaner and Simmentaler. The Dorper and Karakul breeds are used for meat and pelt production respectively, and are found mainly in the south of Namibia.

Besides meat, there are opportunities for investors to add value locally in leather and tallow products such as glue and gelatin. Similarly, there is scope for the processing of pelts and wool of the hardy Karakul sheep. Small and medium-size farming is encouraged to develop this recovering sector.

Scope also exists for the breeding of goats and rabbits for mohair and in the poultry sector for eggs, meat and poultry feed. More investment is needed for the production of dairy products such as cheese, butter, baby foods and ice creams.

The ostrich industry is a growing sector in Namibia. In 1990, live ostriches were exported to the United States, Holland, France, Italy, Canada and Mexico. Ostrich skins have already been sold since the early 1980s mainly to the United States, Japan and Germany. Namibia has EU standard ostrich abattoir and exports ostrich meat to several EU member countries. A new price structure for ostrich products, announced in 2000 by Ostrich Production Namibia, has increased competitiveness with South African prices and is expected to encourage increased investment in the industry.

Namibia is a significant player in the international fishing industry, ranking among the top 10 in the world as to the value of catches. The main exploited species are hake, horse mackerel, tuna, rock lobster, monk and crab but a valuable fishery also exists for pilchard, kingklip, orange roughly and swordfish. Oysters and mussels are also farmed. The government aims to maintain a sustainable utilization of all living marine resources to ensure maximum benefit to all Namibians through local processing and value-added products. There are many opportunities for investment in the fish processing industry as well as within mariculture. There are also significant opportunities within the fishing support industries including marketing, processing technology, packaging, storage and transport.

The value of production and exports from the sector rose sharply from around N\$500 million in 1990 to level off at N\$1.3 to 1.4 billion from 1994 to 1996 and thereafter growing sharply again to exceed N\$2.8 billion in 2000.

The fishing industry suffered a setback during 2001 due to unfavorable marine conditions. Government efforts to keep the fishing stock at a sustainable level are expected to result in moderate growth in the coming years. However, continued concerns over the declining pilchard industry could impact negatively on the sector in the medium term. The fishing sector as a whole is expected to grow at about three percent on average between 2002 and 2005, although the industry is vulnerable to oceanic conditions. The outlook is for further expansion in the Namibian fishery industry with a scope for a significant increase of the real value of the sector output in the medium term.

The commercial fishing fleet operating in Namibia grew consistently after independence from 214 vessels in 1991 to 332 vessels in 1996, declining to 293 vessels in 1999. There were 309 vessels in 2000. This reduction in capacity, while catches have increased, indicates a more efficient fishing fleet. The major area of growth has been in the demersal fleet, targeting hake. The largest markets for Namibian fish can generally be summarized as follows:

- Pilchard, canned, almost exclusively to South Africa.
- Horse mackerel is sold mainly to African countries. Various West African countries have traditionally bought horse mackerel, and some is exported to the Democratic Republic of

Congo, Mozambique, South Africa and Zimbabwe.

- Rock lobster and crab are mainly exported to Japan.
- Hake is mostly exported to Europe where Spain is the largest market, but France, Germany, Italy and Portugal are also receiving considerable amounts.

Walvis Bay and Lüderitz are Namibia's only fishing ports. All fish are landed through these two ports before processing and/or transported/exported.

Namibia has a population of 1.8 million and a GDP of \$2.9 billion. However, incomes are very skewed for the population. It has a modern infrastructure, a good business climate, and economic and political stability. Primary Namibian exports to the U.S. include fish and mineral products.

Namibia's real economic growth rate increased from 2.4 percent during 1998 to 3.0 percent during 1999. The government estimates a growth rate of over 3.8 percent in 2000. The sectors in the economy holding promise for growth are mining and energy, fishing, manufacturing, and eco-tourism.

Namibia is endowed with well-trained and experienced professionals in various fields. However, the government realizes that there are sectors of the economy in which there is a shortage of skilled labor.

Value-added manufacturing opportunities include: tanning of hides and skins; ostrich hatchery, farming, and processing; fur and pelt processing; and wool processing (Namibia Country Commercial Guide FY2001).

Based on the Cotonou agreement with the EU, Namibia may export 13,000 tons of boneless meat (beef and veal) per year at greatly reduced customs duties. Namibia also has preferential access for 800 tons of seedless and 100 tons of seeded grapes to export to the EU.

B.4.1 Livestock and Meat Exports

Namibia's key exports markets for livestock and livestock products are South Africa and the European Union. Approximately 80 percent of livestock production in the country is exported mainly as live animals to South Africa. Furthermore, under the Cotonou arrangement Namibia is given preferential market access for 13,000 tons of processed beef cuts. The DVS is recognized by the EU and South Africa as the single competent authority in the field of animal and veterinary public health. DVS certifies sanitary documents according to provisions required by South African and EU authorities.

The Namibian Meat Board issues import and export permits for meat and livestock. Meatco has two abattoirs which are approved for export to the EU, and two others that are used to slaughter animals destined for South Africa and other markets. Another abattoir is certified to export small stock to the European Union and an ostrich abattoir has also gained EU certification recently.

However, in the late 1990s Namibian beef was rejected by Norway, which has zero tolerance for salmonella. The beef was sent back and Namibia was blacklisted for six months. In the same vein, Namibia closed its borders for livestock and livestock products with South Africa following the outbreak of Foot and Mouth Disease (FMD) in August 2000. Revised import permits were introduced and disease-free areas were recognized. After 21 days, the situation was re-evaluated and less risky products were freed from restrictions.

Namibia has also designed the “Farm Assured Namibian Meat Scheme” (FANmeat) which complies with requirements for traceability as demanded by the European Union and other importing countries and to ensure that Namibian meat products are safe and hygienic. FANmeat also bans the use of hormones and ruminant byproducts in animal feed.

B.4.2 Assistance and Models

Namibia Chamber of Commerce and Industry (NCCI): The following reasons were listed as constraints by the NCCI:

- Production capacity not great enough
- Inconsistent production
- Quality problems, lack of quality and standards
- Lack of knowledge of the market place
- Limited skills of the employees

The NCCI felt that there should be interactions with the United States to demonstrate the benefits of doing business in Namibia. The leather industry could be an opportunity for the communal interest to take root. Also, the NCCI feels that the country can benefit from an association with Tanzania, which is desired by Namibia.

Namibian Agricultural Union: They have several groups that are interested in the promotion of livestock industries. Currently there are 1,200 members. They act as a liaison between the government and the producer. They are actively involved in the relocation issues. It was felt that additional markets and training were two key issues.

Mr. Black: There are opportunities to interact with this group on transportation issues. Salt is a big commodity that could be better utilized.

B.4.3 SWOT Analysis

<p>Strengths</p> <ul style="list-style-type: none"> • EU approved slaughter facility • Disease free zone (North of 20 degree latitude) and another zone qualified as a “Red” Zone • Agreement with Botswana Meat Commission • Sells to South Africa • Organized • Recognized • Traceability program • Technology advanced • Longest period of time with no FMD • EU beef quota • Strong internal market demand for meat products • Strong disease monitoring program • Supporting government entities • Strong private sector-government interaction 	<p>Weakness</p> <ul style="list-style-type: none"> • Cattle herd size • Over 60 percent sales to EU • Drought prone country • Finance problems • Training (lack of skills) especially in the communal areas • Lack of government capacity to complete forms and paper work on a timely basis • Lack of feed and byproducts • Under utilization of byproducts • Drop in production over the past few years • High incidence of HIV/AIDS • Light lamb carcasses • Average of 30 percent take off of animals • Shared access to international rivers • Reduced production from communal areas • Lack of marketing information
<p>Opportunities</p> <ul style="list-style-type: none"> • Ability to expand markets because of facilities • Ability to wean and add value • Possible investment of slaughter plant South of country to slaughter lambs and small stock • Some small scale diversified farmers with relocation both poultry and dairy • Lean products that would work well for 	<p>Threats</p> <ul style="list-style-type: none"> • Disease in cattle • Disease in swine from wart hogs • Falling support prices in EU • Over 60 percent of market with EU • Relocation of disadvantaged farmers • De-boning on product from FMD free zones (non-trade barrier?) • Loss of revenue from animals that are

<p>fast food groups</p> <ul style="list-style-type: none"> • Changing or incorporating a tourism operation into the ranch • The HUB can interact with the Meat Board and processing companies to increase U.S. contacts and as a portal for U.S. information • University System • Angola market 	<p>fed in South Africa</p> <ul style="list-style-type: none"> • Loss of revenue (value added) from sheep slaughtered in South Africa • Changing of some cattle/sheep ranches to game/tourist ranches • Angola • Decreasing production
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B.4.4 Conclusions

- Short-term possibilities to coordinate the application process for export of meat products into the United States.
- Assist in training and teaching facilities.
- Need a better understanding of the fishing industry.
- An understanding of water issues on livestock production needs to be completed.

B.5 Malawi

Malawi has several areas of livestock production including beef, pork, mutton and lamb. There is room to expand the beef production, particularly for the larger estates as an option to diversify away from tobacco.

A reasonably sized dairy sector produces almost eight million liters of milk a year and the commercial production of poultry and eggs has increased significantly since the mid-1980s.

Under the United Nations Development Program (UNDP) 5th Country Program, the Department of National Parks and Wildlife (DNPW) is encouraging smallholder farmers to utilize natural resources in an environmentally friendly manner. So far some success has been recorded in bee keeping and guinea fowl rearing.

Fish makes up about 70 percent of the total animal-based protein consumption in Malawi. The annual catch from Lake Malawi is around 70,000 tons. The industry employs, either directly or indirectly, nearly 250,000 people.

The Department of Fisheries has initiated a number of projects to increase production on a sustainable basis after production fell by 25 percent during the 1990s.

The agricultural sector was the main source of economic growth during 1994-2000 and remains the main sector in which the poor play a significant role. The agricultural sector contributes 36 to

39 percent of GDP of which the smallholder sector contributes 27 percent. In addition, agriculture accounts for 80 percent of total employment and supplies more than 65 percent of the manufacturing sector's raw material requirements. It also accounts for over 90 percent of export earnings. Therefore, agriculture remains the major source of economic growth for the foreseeable future (World Trade Organization, 2003).

The growth in the economy in 1997 and 1998 was a result of good generally agricultural performance. In 1997, growth was driven primarily by a good performance in the large-scale sector. In 1998, growth was strongly related to the recovery in the small-holder agricultural sub-sector. During the years of drought, the economy experienced food shortages. However, during 1998/99, the economy had a maize surplus in excess of 500,000 tons partly as a result of the starter pack initiative, which saw government distributing free seeds and fertilizer to smallholder farmers (World Trade Organization, 2003). The challenge remains in addressing the constraints faced in agricultural production, marketing, and distribution as well as in the diversification into non-traditional agricultural exports. Some of problems to address include inadequate producer incentives, inadequate credit and extension services, inadequate rural infrastructure including feeder roads to allow private sector involvement in marketing inputs and outputs.

B.5.1 Fisheries

The fisheries sector policy in Malawi aims to sustain the contribution the sector makes to poverty alleviation programs in the country. The sector has experienced substantial decline in production from the beginning of the 1990s. Overall fish production is now at an average of about 48,000 metric tons per year from about 70,000 metric tons per year in the 1980s. The bulk of production is from the small-scale artisanal fisheries while only 10 percent is contributed by the commercial sector. Economically, fishing contributes about four percent of the GDP.

The focus of government now is to stimulate fish production from the deeper waters of Lake Malawi that is presently under-exploited and to promote investment in fish farming. In order to stimulate growth in these areas, government has introduced the tax-free facility for the import of equipment and gears targeting the fisheries industry. The country is experiencing increased investment in commercial fish farming initiated by statutory agencies, namely Press Corporation and Malawi Development Corporation. These agencies are undertaking substantial investment in cage fish farming and pond based fish farming respectively.

To ensure that the fishery products of Malawi are able to compete favorably in the export trade, it will be necessary to develop a comprehensive Sanitary and phytosanitary (SPS) measures, safety and quality control framework in line with internationally established standards. Malawi will require support in terms of technical and financial assistance in order to up grade its capacity to comply with measures and standards demanded by importing countries (World Trade Organization, 2003).

B.5.2 External Trade Performance

The external trade performance, as assessed in terms of visible trade balance has remained unsatisfactory for the period 1994 to 2000. The trade balance has continued to be negative and

the gap progressively widened. In 1994, total exports (f.o.b.) amounted to MK 2.7 billion against imports of MK 4.7 billion. In 1999, total exports amounted to MK 18.0 billion against imports of MK 27.8 billion. In nominal terms, exports showed an increasing trend. The increase has largely been due to the depreciation of the Malawi Kwacha. In real terms, domestic exports have been fluctuating, recording lower export volumes particularly during years of drought.

The major trading partners of Malawi include South Africa, the United Kingdom, Germany, Zimbabwe, the United States, the Netherlands, Japan and Switzerland.

The main constraints facing the export sector are: poor access to international markets; low supply capacity of most of the non-traditional exports; and over dependency on a few traditional export products. Export development efforts have, therefore, focused on the development of new export products, market diversification, and consolidation of supply particularly among the small and medium enterprises (SMEs) (World Trade Organization, 2003).

Foreign Direct Investment Inflows have been relatively low. Inward inflow as a proportion of gross fixed capital formation was at 2.8 percent in 1994 and increased to 12.3 percent in 1995 while the corresponding figure for Sub-Saharan Africa were 12.3 percent and 10.2 percent, respectively (The World Investment Report 2000 estimates that Malawi received close to \$60 million of FDI in 1999 compared to \$70 million in 1998 and \$22 million in 1997, amounts which are tiny by international standards). In addition to agro-processing, Malawi is expected to see a substantial increase in FDI in the tourism sector (World Trade Organization, 2003).

Geographically small (48,000 square miles) and landlocked in central Africa, Malawi is a poor nation. With over 9 million inhabitants and a population growth rate estimated at approximately two percent, Malawi is one of the most densely populated countries on the African continent. Annual per capita GDP is about USD 220 (Malawi Country Commercial Guide FY2001).

B.5.3 Agriculture

Malawi is highly dependent on agriculture. Although the sector produces only about one-third of the GDP it contributes more than 90 percent of the country's foreign exchange earnings. Tobacco, tea and sugar – three of the country's major agricultural products – contributed an average of about 82 percent to Malawi's total annual export earnings in the eight years prior to 2001.

The agricultural sector is composed of two sub-sectors: small-scale farmers and larger estates. The two sub-sectors have been historically distinguished on the basis of legal and institutional rules regulating land tenure, type of crops and marketing arrangements. The smallholder sub-sector is based on a customary land-tenure system and is primarily subsistence, providing the bulk of food production. The main food crop is maize, supplemented by rice, sorghum, pulses, cassava and sweet potatoes. Since the mid-1990s, smallholders have been allowed to produce/export industrial crops, and this has generated great response in production, particularly of tobacco. The great challenge arising from this development is to maintain the quality of

tobacco produced. Other cash crops include cotton, groundnuts and pulses. The estate sub-sector comprises about 14,700 estates occupying some 850,000 hectares of leased land. The main crops are tobacco, tea and sugarcane. Approximately 80 percent of the workforce is employed in the smallholder sub-sector and 11 percent on estates.

Agricultural production grew at an annual rate of 2.1 percent from 1980 to 1993, down from a high of 4.4 percent per annum between 1970 and 1980. This was mainly because ADMARC's purchases were drastically reduced in 1986/87, with maize purchases decreasing from 271,000 tons in 1985 to 59,500 tons in 1987, as result of excessive stocks and Government budgetary constraints. Furthermore, guaranteed producer prices were held down to reduce Government expenditure, with the price of maize constant for three years up to 1997. This led to a steep fall in marketed maize and a resurgence of food shortages after many years of surpluses.

Throughout the 1990s, agricultural production was characterized by marked swings due mainly to droughts. Following a drop in maize production in 1996/97, there was a significant recovery in 1998/99 and 1999/00, which was attributed to increased use of modern agricultural inputs (improved seed and fertilizer) especially under the Starter Pack scheme. An increase in cropped area also contributed to the rise in the level of production. During the poor 2000/01 season, the distribution of inputs was drastically reduced because of very limited donor involvement in financing the scheme, and reduced credit availability following extensive defaults by farmers in 1999/00 partly caused by very low maize prices. The 2001/02 cropping season was also poor, principally because of unfavorable weather conditions.

B.5.4 Finance

The high interest rates currently prevailing in Malawi, with bank rates at 40 percent or more, have adversely affected agricultural producers in two important ways. Firstly, they have increased pressure for the rate of inflation generally to rise thereby driving up the cost of agricultural inputs. Secondly, high interest rates have increased the cost of borrowing to finance agricultural production. Malawi has thus been prevented from realizing full potential for agricultural production.

B.5.5 Livestock and Pasture

Livestock contribute about 12 percent of total agricultural production in Malawi and cattle numbered about 700,000 head in 1997 when the last estimate was made, some 12,000 of which were recorded as dairy animals. Most cattle are found in the northern region where more land is available for grazing. Goats are found throughout Malawi and smallholders in all districts also keep pigs. Meat and milk consumption is low at an estimated 6.3 kg/person/year and 4.5 lit/person/year respectively, whereas the average meat consumption for other African countries is estimated at around 13.0 kg/person/year and the FAO recommendation for milk consumption is 200 lit/person/year. Poultry are common in all homesteads but generally only sold when cash is badly needed.

- Cattle: 770,000
- Sheep: 120,000
- Goats: 1,280,000
- Horses: 45
- Pigs: 240,000

Last year, when food was scarce, it was apparently common to see poultry and goats offered for sale, very cheaply, all over Malawi; but this year the situation is very different. A goat which sold for K40 last year will cost K500 at present and a chicken which was K 10 to 20 is now selling at K70 to 150. Livestock numbers are generally said to have declined in recent years, for several reasons. An increase in cattle theft, dwindling of farm sizes resulting in inadequate grazing, the high cost of feed, poor health and low productivity are among the factors responsible. The numbers of oxen have also fallen, which has implications for crop production, putting limitations on the area that a farmer can cultivate. Another difficulty facing animal draft users is the difficulty of obtaining spare parts for ploughs and other implements, which are no longer readily available in rural areas.

A relatively recent phenomenon that is rapidly rupturing the already fragile food insecurity structure, especially in the rural areas, is the prevalence of high rates of HIV/AIDS. According to data available for the year 2001, the HIV/AIDS prevalence rate at the national level is 19.5 percent, indicating that this problem has reached crisis proportions, as in other Southern African countries. The incidence in the districts ranges from 9.6 percent to 38.5 percent, with half of all the districts having rates over 20 percent. Apart from being a serious health issue that is making increased demand from the national and household budgets, HIV/AIDS also undermines developmental efforts and further weakens the poverty and food insecurity situation because it predominantly affects economically active adults.

B.5.6 HIV/AIDS

Over 19 percent of the economically active adults in the 15 to 49 age group are affected by HIV/AIDS, with a relatively high proportion in the Southern region. Although individuals are affected, it has deleterious effects on the whole household, because of the erosion of the income earning capacity, additional household expenditures related to the sickness and changes in the mobility patterns and livelihood strategies as well as funeral expenses. In this sense, the proportion of the households affected by the HIV/AIDS would be quite close to the proportion of individuals affected. It is likely that some of the HIV/AIDS affected category may overlap with the destitute category. At present, this overlap cannot be estimated. Highly specialized interventions that should have both humanitarian and developmental underpinnings are needed to help this group.

B.5.7 Food Scarcity

Sale of livestock is another way of redressing the problem of food scarcity. Compared to the 2001/02 agricultural season, food thefts or sale of livestock or pre-mature harvesting were not rampant during the last lean season because of food aid distribution that covered a high percentage of the vulnerable population (FAO, 2003).

B.5.8 Assistance and Models

Land O'Lakes: From the projected market analysis, it is assumed that demand will always be greater than actual production. When calculated on a cash flow basis, the dairy industry could bring in more cash than either the tobacco or cotton industries. Dairy production will actually result in a steady cash flow to the smallholder as well as additional large sums of cash when animals are sold.

One of the major constraints in the country is financing for the project. Interest rates are so high that it is difficult to repay the loans. Additionally foreign exchange rates have an affect on financing. There are four processing plants in the country that are running at about 35 percent capacity. These plants are located throughout the country. Also, the program offers a good alternative cash flow for the producers of Malawi. The program appears to be a program that would be a good for some sort of collaboration – marketing, perhaps.

International Fertilizer and Development Center: IFDC is a nonprofit, public, international organization dedicated to conduct work on an independent and sound scientific basis. IFDC was founded in 1974 to work in global food security. The focus of IFDC work is on: policy analyses and reform and institutional capacity building to develop competitive markets for agricultural inputs and outputs; provision of tools and information for more efficient and environmentally sound management pf plant nutrients; information and recommendations to improve and sustain soil fertility and land productivity; provision of technical assistance and knowledge to enhance the efficiency and safety of plant nutrient production and supply; and training for human resource development in all areas of work.

IFDC has a USAID, DFIF, EU and World Bank funded program in Malawi with an office in Lilongwe. The program concentrates in four core areas: policy, regulations, development of enterprises and developing a market system. The first two areas are completed at the national level with the appropriate government department and ministry while the last two concentrate in field and producer development. The program has an active policy and regulations component that could be balanced in other countries. They also have several technical specialists. Furthermore, the company is working on information systems in other countries.

ITTA: There is an active cassava research program in the country. They have demonstrated that there are additional uses for cassava; however, additional work needs to be completed on

growing and harvesting. The program could benefit from technical input on further development and the next steps required.

FAO: The core project is focused on water control, crop diversity and intensification, livestock and capacity building. This program is focused at primarily the small holder. The weak component of this program in the author's opinion is the direct link with food security. There is a lack of commercial enterprise with this program. However, the program may organize and recognize producers such that other programs can benefit from the linkages. The actual program, Malawi Poverty Reduction Strategy Program will be completed in the August-September time frame.

SEDOM: This is a government trust that was set up in 1982 to provide financing for micro and medium size businesses. The program concentrates on livestock, agro-processing, general manufacturing and general trading. One goal of this program is to put building together in industrial areas for the clients utilize. There are offices in all districts of the country with the head office in Blantyre. Interestingly, the program tries to concentrate in women's groups and implements group-lending techniques. This approach has resulted in reduced defaults and the program further promotes savings. The default rate on the loans is only five to eight percent as compared to a default rate of 15 to 20 percent for individual loans.

There appears to be an opportunity for the HUB to balance with this program. The major areas of interaction are training, institutional capacity building and fiscal management training.

Tannery: There is a leather tanning facility that was partially funded by UNIDO. The equipment was funded by UNIDO. However, a private family owns the building. Currently the tannery is not being operated because the owners feel that the returns on the investment are not great enough. Thus, most of the hides are traveling to Kenya.

B.5.9 SWOT Analysis

<p>Strengths</p> <ul style="list-style-type: none"> • Under-utilized land that is suitable for forage/grazing • Under-utilized infrastructure that could be upgraded • Under-utilized byproducts • Successful farmer organizations to draw upon • Natural water resources 	<p>Weakness</p> <ul style="list-style-type: none"> • Lack of skills • Farming community • Lack of financing • Lack of government programs for quality inspections • High incidence of HIV/AIDS • Lack of marketing skills • Lack of organizational skills • Lack of financial skills and lack of access to capital • Lack of institutional capacity for enforcing current laws
<p>Opportunities</p> <ul style="list-style-type: none"> • Seasonal rainfall that would allow rotational grazing programs • Diversification into poultry and dairy 	<p>Threats</p> <ul style="list-style-type: none"> • Disease • Cheap imports • Lack of infrastructure for transport of goods • Lack of training • Weak financial system • Exchange rate risk • Prone to drought

B.5.10 Conclusions

- In depth sector analysis of the fish industry is needed.
- In depth analysis of the livestock sector is needed.
- Development of the poultry and dairy industries.

B.6 South Africa

Livestock is farmed in most parts of South Africa. Numbers vary according to climatic conditions. Stockbreeders concentrate mainly on the development of breeds that are well adapted to diverse climatic and environmental conditions. The estimated cattle population stands at 13.6 million and sheep at 28.7 million. South Africa produces around 85 percent of its meat requirements. The other 15 percent is imported from Namibia, Botswana and Swaziland.

Dairy farming is found throughout the country with the highest concentration of dairy farms in the eastern and northern Free State, the KwaZulu-Natal midlands, the Eastern and Western Cape, the Gauteng metropolitan area and the southern parts of Mpumalanga. Cattle ranches are mainly found in the Northern and Eastern Cape, parts of the Free State and KwaZulu-Natal, and in the Northern Province. Sheep farming is concentrated in the Northern and Eastern Cape, Western Cape, Free State and Mpumalanga. Most sheep are fine wool merinos (50 percent).

The indigenous meat-producing Boer goat accounts for about 40 percent of all goats, and the Angora goat, used for mohair production, for the remaining 60 percent. South Africa has about 3,500 Angora farmers. Compared with the mainly extensive cattle and sheep industries, the poultry and pig industries are more intensive and are located on farms near metropolitan areas.

South Africa accounts for 80 percent of world sales of ostrich products including leather, meat and feathers. Game farming has grown in recent years and is now a viable industry with significant economic potential. South Africa has more game and a wider variety of game species than most other countries.

South Africa's commercial fishery industry is valued at about R2 billion annually and employs 27,000 people, while recreational fishing attracts some 750,000 enthusiasts and employs more than 130,000 people. The most valuable commercial fishery is demersal, a fishery dominated by deep-sea trawling for Cape hake. The pelagic fishery is South Africa's largest in terms of volume landed (anchovy and pilchards). The country's 2,968-kilometre coastline produces more than 600,000 tons of fish annually (including mollusks and crustaceans). Mariculture in South Africa was confined largely to oyster farming in Knysna for many decades. Today black mussels are grown in Saldanha Bay and permits have been granted for the farming of abalone, prawns and seaweed.

The Marine and Coastal Management of the Department of Environmental Affairs and Tourism is the central government agency primarily responsible for the administration of sea fisheries in South Africa. This includes research, exploitation control, formulating policy advice, and managing a fleet of research ships. The government's new fisheries policy aims to uplift impoverished coastal communities through improved access to marine resources and the sustainable management of those resources. The Marine Living Resources Act 1998, provides for the conservation of the marine ecosystem, the long term sustainable utilization of marine living resources and the protection and orderly access to exploitation of resources.

The Act states that no fishing whatsoever is allowed without a permit. Licenses are required for commercial fishing by subsistence fishers, recreational fishers, and for mariculture initiatives. No

commercial fishing is allowed except in terms of a fishing vessel license, and subject to allowable catches or quotas. The Act also gives powers to fishery control officers to act beyond South African waters, in accordance with international law.

South Africa's market size of approximately 44 million people, infrastructure, and pro-business environment make it the logical choice for an increasing number of companies seeking a stepping-stone to conduct business on the continent. The South African economy is characterized by standards similar to those found in developed countries.

Not only is South Africa in itself an important emerging market, but it is also a minimum requirement for accessing other sub-Saharan markets. The country's borders with Namibia, Botswana, Zimbabwe, Mozambique, Swaziland and Lesotho, and its well-developed road and rail links provide the platform and infrastructure for ground transportation deep into sub-Saharan Africa. More-over South Africa has resident marketing skills and distribution channels imperative for commercial ventures into Africa.

B.6.1 Agriculture

Although South African agricultural production has almost doubled over the past 30 years, erratic weather has caused significant production variations from year to year. The country is self-sufficient in primary foods with the exception of wheat, oilseeds, and rice. The contribution of agriculture, fishery and forestry to value added at basic prices (total value of output less the value of intermediate consumption) increased from R20.1 billion in 1999 to about R25.4 billion in 2000, while the percentage contribution increased from 2.8 to 3.2 percent. The increase in production was mainly due to improved rainfall. However, producer prices increased by 5.1 percent compared to a 0.2 percent increase in 1999. Producer prices of field crops decreased by 6.8 percent while prices for horticultural products and animal products increased by 9.1 percent and 11.4 percent respectively.

The real contribution of agriculture to the national economy is often obscured by its nominally low direct contribution to GDP (less than 4 percent). However, if the full impact of the "agro-industrial" complex with backward and forward employment linkages and multiplier effects on the rest of the economy are included, agriculture contributes at least 15 percent to the GDP. In 2000, the gross value of agricultural production is estimated at R45 billion, an increase of 2.8 percent. Major contributing products include poultry meat production 13.9 percent; corn 12.5 percent, and cattle slaughtered 8.7 percent. Gross farm income from all products increased by 2.9 percent, while consumption expenditure on food increased by 9.6 percent to R108.7 billion.

South Africa has a market-oriented agricultural economy and is a net exporter of agricultural products. The positive agricultural balance of trade amounted to R5.8 billion in 1999 and R6.2 billion in 2000. In the period 1994 to 1998, agricultural exports varied between 8 and 10 percent of total exports, while agricultural imports varied between 6 and 7 percent of total imports. The value of farm exports rose from R14.8 billion in 1999 to R15.8 billion in 2000, partly because of

the devaluation of the Rand, while the value of agricultural imports increased from R9 billion in 1999 to R9.6 billion in 2000. Current trends indicate that South Africa will continue to supplement local agricultural production with imports. Total agricultural imports amounted to \$1.932 billion in 2000.

B.6.2 Other Issues

The three major cross-cutting areas are marketing, training and finance. These topics were the all-common complaints in each country. South Africa can serve as a role model for the development of other countries. The risk is negative association with South Africa. Some of the countries feel that the country is too big and that the individuals will not look out for the best interests of all the countries. Understanding this risk in the beginning and designing programs to reduce this risk will enhance the success of program intervention.

B.6.3 Assistance and Models

APHIS: The regional office for APHIS is located in South Africa. The major problem with all the regulatory and compliance groups is the confusion of what is required by the United States to import products. There is a need to interact with these groups and to fully train both private and government officials of the necessary steps. The lack of information sharing has led to disinformation on import requirements.

Agricultural Research Center (ARC): This group is part of the government and is a research group for agriculture. There was a major scope change in 1994. This group would be a good group to balance with in the future. They have the training and skills necessary for training other training in other countries. They understand the political climate and the necessary linkages to relate with the people.

South African Meat Industry Corporation (SAMIC): This is a private industry organization that serves as a spokes group for the livestock industry in South Africa. Fees from the producers fund them. They interact with the government and help formulate policy. They are very protective of the industry and put the needs of the producers first. Two major issues are the dumping issues from countries with highly subsidized livestock industries and expansion of low cost producing countries. Their policies have a tendency to be protective. However, the goal is to promote internal production. The organization feels that they must represent Southern Africa as a unit and not the individual interests of each country. There are possibilities for the HUB to interact with this group. Training, SME and relocation of the disadvantaged are items of concern.

Dr. Lucia Anelich: Dr. Anelich is a professor in Food Microbiology. She has interacted with the HUB in the past. She is an excellent resource for the country and the region. During this meeting it became apparent that there is a misunderstanding of the food safety and inspections programs as well as grade and standards programs. An outcome from the meeting is the need to develop a training program for producers and government officials. The main areas for South Africa

involvement are: Training, assistance in implementation of programs, technical and advice support and site implementation.

B.6.4 SWOT Analysis

<p>Strengths</p> <ul style="list-style-type: none"> • Advanced marketing programs • Advanced transport infrastructure • Internal market • Professional management skills • Numerous finance options • Professional business associations • Strong government-private sector relationship • Strong leadership in professional organizations • Advanced technology adoption • Advanced commercial sector • Bilateral trade agreement with the EU • Largest contributor to GDP • Advanced laws and monitoring programs • Ability to take advantage of niche markets 	<p>Weakness</p> <ul style="list-style-type: none"> • Lack of internal seed stock to meet internal demand • Zimbabwe border • Possibly insufficient funding of commodity exchange • High incidence of HIV/AIDS
<p>Opportunities</p> <ul style="list-style-type: none"> • Internal market • Increased utilization of byproducts • Ability to mentor other countries • Small sector growth for commercial operations • Several organizations to work with 	<p>Threats</p> <ul style="list-style-type: none"> • Relocation of disadvantaged • Zimbabwe • Kruger Park, the incidence of disease transfer • Cheap imports or dumping by other countries • Commodity meats and milk from various countries • Loss of leadership in some key positions of research programs

	<ul style="list-style-type: none"> • Drought prone climate • Tariff issues • Stock theft
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B.6.5 Conclusions

- The country can serve as a role model for development of the region.
- In depth country analysis needs to be completed to fully develop the linkages for development work.
- Increase awareness of water issues.

B.7 Botswana

The livestock industry contributes, on average, 80 percent of agriculture share to GDP, which had a growth rate of 7.8 percent in 2000/2001. Livestock productivity has been hampered by persistent drought, resulting in shortage of water and poor grazing conditions, while outbreaks of animal diseases of economic importance pose a serious threat to the beef industry.

Botswana has remained stable for most serious trans-boundary animal diseases. The government is cooperating with Zimbabwe in an effort to bring the foot and mouth epidemic in that country under control.

The national herd is still estimated at 2.5 million cattle and the same number of small stock (mainly sheep and goats). Poor management practices have led to overstocking, overgrazing and range degradation, challenges which the government is now addressing. The Agricultural Development Policy of 1991 is aimed at improving rangeland management by allowing farmers to fence communal grazing areas where possible. Because of lack of water, stock can be grazed on only 20 percent of the land area. Beef processing accounts for about 80 percent of agricultural output, and over 95 percent of production is exported.

Botswana Meat Commission (BMC) was established in 1966 by an act of Parliament, to coordinate the production of beef from the national herd which grazed on chemically free ranch land covering much of the country's 582,000 sq. km. BMC is the sole exporter of lean beef that features prominently in markets throughout the world, particularly the EU, and which has achieved an excellent reputation for quality.

The Commission owns three abattoirs. The headquarters is in Lobatse and has a capacity to slaughter 800 cattle and 500 small stock per day. The branch abattoirs are situated in the northwest of the country at Maun, with a capacity of 115 cattle per day, and in the northeast at Francistown, with a capacity of 400 cattle and 150 small stock per day.

The Lobatse abattoir produces a range of canned products: tongues, corned beef, beef extract and pet foods. Hides are processed to the wet blue stage. Other byproducts are blood, bone, carcasses meal, tallow, tail hair, ox gall and gall stones, and offal (livers, hearts, kidneys and tails), which are mainly sold to South Africa and within Botswana.

BMC also owns marketing subsidiaries in the United Kingdom, Germany, Holland, Greece and South Africa; an insurance company in the Cayman Islands; cold storage facilities in the United Kingdom and South Africa; and transport and property companies in Botswana.

The implementation of the Livestock Identification and Traceback System (LITS) is still ongoing. The development and installation of a computer-based infrastructure and bolus insertion in cattle was completed in the pilot districts in August 2001.

The dairy industry is still in its infancy, with most fresh milk and dairy products being imported from South Africa. Local production is being encouraged by research from the Ministry of Agriculture, especially regarding urban milk supplies, and through the imposition of import controls.

Small livestock (mutton and goat) is high in demand but producers are constrained by access to markets because of lack of internal transport.

The upsurge in the growth of towns has considerably increased demand for pork, poultry, eggs and fish all which offer local production scope. Fishing is currently confined to the Chobe River and Okavango Delta, where it provides a small supplementary food source.

Poultry production is experiencing rapid growth, partly due to the support given to producers through the Financial Assistance Policy (FAP). The country is now self-sufficient in poultry production, despite problems of lack of local suppliers of inputs such as pullets and feed.

There has been considerable interest in ostrich farming in Botswana, spurred by the country having the largest population of wild ostriches in the world. However, the industry has yet to be firmly established. Commercial ostrich farming is a complex operation requiring very high standards of animal care if the value of the product is to be realized. Some commercial farmers are becoming involved in game farming. This is an activity which overlaps into tourism, with farms being redeveloped to provide game viewing facilities.

Disease control in Botswana is stringent, and a free-range cattle production system is followed. The Botswana Vaccine Institute (BVI), appointed in the late 1970s as a regional reference library for Southern African types of foot and mouth disease, is now at the forefront in the manufacture of animal vaccines, reporting diagnostic results and accounting for the availability of vaccines to neighboring countries. The Institute produces vaccines for foot and mouth, rinderpest, anthrax, blackleg and contagious bovine pleuropneumonia diseases.

B.7.1 Other Issues

There is a movement by some of the livestock operations to convert the ranches to wildlife or game ranches. Success for various ranches has been varied.

With regard to the dairy program, the following outline demonstrates the advantages to smallholder dairy operations :

- The average income for a producer in Tanzania is \$200 (U.S.). Milk prices are \$200 TSH/L.
- The average smallholder has five cows. Each cow can produce two liters of milk per day.
- Therefore, five cows at 2 liters per cow, at \$200 TSH per liter equals \$2000 TSH per day as income, or approximately \$2.00 (U.S.) per day.
- On an annual basis, \$2.00 (U.S.) at 360 days per year equals \$720 (U.S.) of average income. This will increase the average income by at least 3.5 times.

B.7.2 SWOT Analysis

<p>Strengths</p> <ul style="list-style-type: none"> • Botswana Meat Commission • Disease free zones • Advanced technology which identifies each animal in the country • EU trade agreement • Advanced marketing system • Strong veterinarian programs • Strong support from the government 	<p>Weakness</p> <ul style="list-style-type: none"> • Botswana meat commission is the only authorized exporter • Lack of formal private organizations • Lack of skills • Lack of feedstuffs • Small cowherd size • A desert country with limited water resources in the main cattle growing areas • High incidence of HIV/AIDS • Not certified for US exports • Botswana meat commission is a state governed organization
<p>Opportunities</p> <ul style="list-style-type: none"> • New markets such as the United States • Increased utilization of plants • Organization of a producer organization 	<p>Threats</p> <ul style="list-style-type: none"> • Drop in EU support prices • Only three major cattle feeders • Number of people involved in the cattle industry • Lack of diversified markets • Current taxation system for cattle operations • Lack of local feedstuffs • Cheap commodities • Zimbabwe

ANNEX E

Textiles/Garments Annex

A. Malawi Overall SWOT Analysis

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> • Low labor costs • National Action Committee formed with champions at macro, intermediary and firm levels • Natural resources for agriculture • Some finance/venture capital funds operational • Some established agribusinesses that can be developed further through assistance 	<ul style="list-style-type: none"> • Economic environment • Low to negative GDP • High, unstable inflation • Volatile, unpredictable exchange rate • High real interest rates 30 percent or more • High budget deficit at external and domestic levels equals less private sector investment and negative trade/economic growth • Banks not lending to SMEs and government bonds crowding out private sector • High taxation of business • Weak institutions at all levels, public and private • Poor infrastructure in all areas • Poor dialogue/cooperation between private and public sectors • Human resource skills weak on all fronts, technical and managerial • Exports, forex and employment dependent on three agricultural commodity crops • Lack of information on all fronts

<p>OPPORTUNITIES</p>	<p>THREATS</p>
<ul style="list-style-type: none"> • Import substitution at lower prices • Regional export potential • New business potential based on integration into supply chain of some industries • Possible revitalization of appropriate elements of textile/garment supply chain • Existing agribusinesses can offer linkages or better leveraging of SMEs in their supply chain • Growth Strategy for country developed and agreed to by all parties. If implemented properly and quickly, should yield improved enabling environment for private sector. • World Bank and IMF will release funds contingent on the aforementioned Strategy's execution 	<ul style="list-style-type: none"> • Continued decrease in demand due to economic situation and subsistence level of population • Inability to attract investment and TA to develop private sector • GoM high taxation and customs policies push prices of import inputs artificially high, which negatively impacts total prices • Corruption and bribery from both parties at border crossings • Absence of appropriate, properly implemented regulatory and legal regime/institutions • Unfair advantages in re-pricing, transportation and distribution costs, etc., due to GoM inconsistencies • Artificially lowering prices of domestic products to maintain domestic market share: <ol style="list-style-type: none"> 1. depresses profits and lack of capital to reinvest in business development 2. reduces ability to import necessary inputs because of negative impact on pricing

B. Mozambique Overall SWOT Analysis

Strengths	Weaknesses
<ul style="list-style-type: none"> • Strategic location • Natural land and sea transport corridors • Gateway to landlocked markets • Existing ports being privatized • Stable political environment with highly skilled leaders in key ministries • GoM's serious commitment to consolidate democracy and corporate governance • Dismantling central planning, moving to market driven economy • Labor force is disciplined, hardworking, low-cost, flexible, and friendly • Availability of productive assets: water and electricity are cheap and abundant • Attracting foreign interest/some investment • Climate and soil 	<ul style="list-style-type: none"> • Poor infrastructure – transportation (poor access roads, main north/south land corridor cut by lack of Zambezi bridge) weak/costly telecommunications, lack of warehousing/cold storage, logistics • High, rising internal transportation costs due partly to enormous internal distances north to south, delivery timing, poor quality, weak competitiveness • Supply side constraints: availability, costs • Market information on all levels • Finance: access to available, affordable credit/equity with reasonable terms. Commercial banking system dominated by 1 Portuguese bank w/58 percent share • Dependence on imported raw materials • Weak education overall yielding limited technical skills and managerial capacity: knowledge of business planning, organizational development, overall management information systems, and market development/access • Capacity to meet SPS, quality, quantity market needs • All land owned by GoM with lease only option • Bureaucracy/layers of red tape raise business costs • Customs is inefficient on import and

	<p>export sides</p> <ul style="list-style-type: none">• High tariffs encourage evasion• Weather: droughts and floods• Manufacturing base almost non-existent due to war
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Opportunities:	Threats:
<ul style="list-style-type: none"> ● Value-added product development/expansion; branding opportunities to optimize price ● Potential for agriculture to grow faster than economy overall ● Counter-seasonal products for export markets ● Increased expansion of domestic market ● Identification of new market niches, i.e. mozzarella cheese from buffalos for RSA ● Renewal of some domestic, raw material providers ● Expansion of quality standards and quantity capacity to meet market demands ● Training of technical staff and managers ● Cross cultural education exchange with other African countries who are more commercially advance but know the key development issues ● Create Mozambique as Center of Excellence for region; historically (1975) economy was six times larger than today ● Land ownership changes: private asset for collateral, trade, equity, etc. ● Fiscal Reform: reduce number of taxes, red tape ● Reform labor laws to increase firms' flexibility and control, barriers to 	<ul style="list-style-type: none"> ● Competitive pressure from imports in some industries ● Potential skilled labor problems resulting from a collapsing educational capacity ● Continuing limitations of land transport reduces competitiveness and limits new market development opportunities ● No planning attitude among many businesses: ST orientation toward quick results

expatriate hiring	
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C. South Africa Overall SWOT Analysis

Strengths	Weakness
<ul style="list-style-type: none"> • Advanced marketing programs • Advanced transport infrastructure • Large internal market • Professional management skills • Numerous finance options available • Professional business associations • Strong government-private sector relationship • Strong leadership in professional organizations • Advanced technology adoption • Advanced commercial sector • Bilateral trade agreement with the EU • Largest contributor to GDP within HUB region • Advanced laws and monitoring programs • Ability to take advantage of niche markets 	<ul style="list-style-type: none"> • Lack of internal supply chain inputs in some industries to meet internal demand • Zimbabwe situation on RSA's border • Possibly insufficient funding of commodity exchanges • High incidence of HIV/AIDS impacting labor force – managerial and technical

Opportunities	Threats
<ul style="list-style-type: none">• Continued expansion of internal market• Ability to mentor other countries at multiple levels: macro, intermediary and firm levels• Small sector growth for commercial operations• Several well-established, successful organizations that can be strategically balanced within region through program(s) expansion or replication of models, where appropriate	<ul style="list-style-type: none">• Relocation of disadvantaged• Zimbabwe• Cheap imports or dumping by other countries in some sectors, e.g. livestock, dairy• Research programs in some sectors suffered loss of leadership in key positions, e.g. livestock• Drought prone climate• Tariff issues

D. Tanzania Overall SWOT Analysis

<p>Strengths:</p> <ul style="list-style-type: none"> • Strategic location • Natural trade air, land, sea corridors • Gateway to other E. African markets of approx. 100MM people • Bordered by 8 countries • Part of EAC aimed at customs union and single currency in ST • Stable political and economic environment • Fiscal reform underway i.e. nuisance taxes abolished = < business costs • Good public/private sector dialogue • Footholds in foreign markets. • Availability of productive assets – arable land, good soil, temperate climate • Successful in attracting strong foreign interest and investment • Low inflation rate (4 percent) 	<p>Weaknesses:</p> <ul style="list-style-type: none"> • Poor infrastructure across spectrum – transportation (poor roads, especially access roads), weak/costly telecommunications; lack of proper storage facilities • Energy (particularly electricity) costs/tariffs high, unreliable, availability limited • Access to proper, affordable inputs • Antiquated, inoperable manufacturing. facilities/equipment • Limited technical skills and managerial capacity - knowledge of business planning, organizational development, overall management information systems, and market development/access • Training – lack of adequate, appropriate skills development • Culture and value systems reflecting socialist background persist • Market information - absent on all levels • Finance – lack access to affordable credit with reasonable terms, no LT credit • 40 percent+ of budget is donor funded since privatization began in 1997 • Land owned by GoT with 99 yrs leasing • No strategic plan for trade development
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	<ul style="list-style-type: none"> • Manufacturing decrease continuing
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<p>Opportunities:</p> <ul style="list-style-type: none"> • Further export market expansion. • Increased expansion of domestic market. • Identification of new market niches. • Renewal of some domestic, raw material providers. • Expansion of quality standards and quantity capacity to meet market demands • Training in modern techniques across industry spectrum from production to marketing • Foreign direct investment providing appropriate skills, technology, capital • Access to 3 Great Lakes could expand product and sector opportunities (fisheries, crop > thru irrigation potential, etc.) • Regional center for manufacturing/trade as alternative to imports from RSA if sector is developed – 8 border countries represent markets and supply chain possibilities 	<p>Threats:</p> <ul style="list-style-type: none"> • Competitive pressure from imports in some industries. • Potential skilled labor problems resulting from a collapsing educational capacity • Continued high costs of air transport reduce competitiveness and limit new market development opportunities. • Continued cycle of donor dependency could impede economic independence and private sector development/growth
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ANNEX F

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ANNEX G**List of Individuals Contacted**

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Kenya		
Matanda Wabuyeale	Chief Executive	Export Promotion Council
Lesotho		
Catherine Boch	Managing Director	Cee Bee Clothing (Pty) Ltd
Jennifer Chen	Chairlady	Lesotho Textile Exporters Association
Robert Geers Loftis	Ambassador of the United States of America to the Kingdom of Lesotho	
Sophia Mohapi (Mrs.)	Chief Executive	Lesotho National Development Corporation
Malawi		
Grandford C. Banda	Senior Manager Research & Projects	Malawi Export Promotion Council
Richard J. Chapweteka	Managing Director	Citizens' Network for Foreign Affairs

Basil Chavula	Financial Controller	Sable Farming Company Limited
Sloans K Chimatiro	Director of Fisheries	Ministry of Natural Resources and Environmental Affairs
Amos A. Chipungu	Ass. G. Manager - Marketing	Clark Cotton Malawi Ltd
KK Desai	Chairman	Knitwear Industries Limited
John C. Engle	Malawi Country Director	ACDI/VOCA
Thomas Fungulani	Weaving Manager	David Whitehead & Sons (Malawi) Limited
Faisal K. Hassen	Managing Director	Ilomba Granite Company Limited
Sai Kiran Josyabhatla	Commercial Director	Rab Processors Ltd.
David Boston Kamchacha	Market Development Specialist	Malawi Agricultural Input Markets Development Project (AIMs)
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Raphael Kamoto	General Manager	Grain and Milling Company Limited
Steve Kamphasa	Financial and Management Consultant	KPMG Public Accountants and Business Advisors
Dr. Letitia Karim		The Vet Clinic & Pet Accessories Shop
Rizwan Khan	General Manager	Growers and Exporters of Tropical Plants
K.M. Khoromana	Ass. Executive Director	Nali Group of Companies
Monica Khoromana	Managing Director	Nali Limited
Stewart Kondowe	Operations Manager	Small Enterprise Development Organization of Malawi
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Maurice Makuwila	Fisheries Planning & Information Systems Officer	Ministry of Natural Resources & Environmental Affairs
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John McGrath	Managing Director	imani development (Malawi) ltd
Kelvin Mmangisa	General Manager	Cold Storage Company Limited Meat Products
Express Moyo	Managing Director	Business Consult Africa Ltd
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Albert M.B. Kuthemba Mwale	Assistant General Manager (Marketing)	Agricultural Development and Marketing Corporation
Evelyn Mwapasa	Acting Chief Executive	David Whitehead and Sons (Malawi) Limited
Alick G. Nkhoma	Assistant FAO Representative (Program)	Food and Agriculture Organization of the United Nations
Jayesh Patel		Zikomo Flowers Limited
Michael Sosola	General Manager	Indefund Limited
Autman Tembo	Project Management Specialist	USAID/Malawi
Afzel Thassim	Finance Director	Rab Processors Ltd
Mozambique		

Salimo Amad Abdula	Presidente	Associação Comercial de Moçambique
José Alcobia	Responsável Técnico	Frutimel
Timothy Born	Team Leader	USAID/ Maputo
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Alec Don	Chief Executive	Maputo Port Development Company
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Higino de Marrule	Agro Economista Coordenador	Ministério da Agricultura e Desenvolvimento Rural República de Moçambique
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Paulo Guilherme Negrão	Director	Citrum Citrinos do Umbeluzi
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Arnaldo Ribeiro	Director	Instituto Nacional do Açúcar
Luiz Ribeiro	General Manager	British American Tobacco Moçambique
A. Romeu Rodrigues	Director Geral	CETA Construção e Serviços
Jaime Roberto Ferreira dos Santos	Chefe de Dept. · Trading	Grupo João Ferreira dos Santos
Fernando Ricardo Sequeira	Director Gerai	Agri Focus
Christine de Voest	Rural Incomes Team Leader	USAID/Mozambique
John Kingman Walter	Director	TechnoServe/Mozambique
James E, Watson, II	Program Officer	USAID/Mozambique
Namibia		
A.S. Aboobakar	Chief Executive Officer	Offshore Development Company (Pty) Ltd
Andries Binneman	Manager Procurement	Meatco
Brian Black	General Manager: Marketing & Sales	TransNamib Holdings Ltd.

Christof Brock	Chief Executive Officer	Namibian Agronomic Board
Staal Burger	National Horticulture Coordinator	Namibian Agronomic Board
I J (Sakkie) Coetzee	Executive Manager	Namibia Agricultural Union
Ian Collard	Financial Manager	Namib Mills (Pty) Ltd.
Cobus Franken	Plant Manager: Windhoek	Meatco Namibia
Thomas Horn	Director: Operations	Farmers' Meat Market Holdings Ltd
J. Ali Ipinge	Activity Manager: Private Sector Support Office	USAID/Namibia
Karape Kactjivive	Chief Trade Promotion Officer	Ministry of Trade and Industry Republic of Namibia
Kahijoro Kahuure	Deputy Permanent Secretary	Ministry of Agriculture, Water and Rural Development
George Kotzé	Operations Manager	Meatco Namibia
Vollrat von Krosigk		Desert Green Horticulture
I.J. Lupanga PhD	Department of Ag. Econ. & Extension	University of Namibia
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