



Kenya BDS

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**USAID Kenya Business Development Services Program
(Kenya BDS)**

Contract No. 623-C-00-02-00105-00

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ACTIVITY STATUS REPORT

Activity 2: Conduct Subsector Analysis to Identify Constraints to Growth and Service Gaps

Activity 3: Identify and Define Appropriate BDS to Address Constraints

February / March 2003



A USAID Funded Activity Managed by Deloitte Emerging Markets

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EXECUTIVE SUMMARY

This report summarizes work undertaken for Activities 2 & 3 under the Kenya BDS project. The purpose of this project is to assist the USAID Kenya mission achieve its Strategic Objective (SO7): *increasing rural household incomes*, using a combined business services and subsector approach. Activities 2 and 3 are to: conduct subsector analysis to identify constraints to growth (2) and those business services critical to alleviating those constraints (3). The subsector selected in activity 1 includes mangoes, avocados and passion fruit.

The BDS approach as reflected by the new donor BDS guidelines is based on the hypothesis that sustainable improvement in small enterprise (SE)¹ income can best be achieved through the delivery of a range of business services (BDS) by providers, primarily private sector, operating under market conditions without or with minimal subsidy and market distortion.

The incomes of large numbers of MSE's will increase if and when there is growth in the entire subsector or cluster in which these firms operate. If a cluster or subsector is not growing, it is unlikely that incomes will increase. If we want to facilitate or create the conditions that enable large numbers of small firms to grow, we may also need to facilitate the conditions for growth in the subsectors or clusters that employ them. Subsector and cluster analysis teach us that the fate of all enterprises regardless of size in a subsector or cluster are linked and depend upon the productivity and competitiveness of the subsector or cluster in which they work. Kenya BDS is using a subsector approach to identify subsectors in Kenya that employ large numbers of MSE's and appear to have considerable growth potential.

Linking the BDS approach to a subsector or market assessment approach provides us with information that we can use to facilitate the development of business services critical to increasing MSE incomes—in growing subsectors. The methodology employed in this combined approach is a participatory one, and brings together a wide range of stakeholders in the subsector from MSE producers to representatives of the largest exporters and processors.

This approach provides answers to the following key questions:

- What services are critical to increasing the competitiveness in a subsector/cluster?
- What services are critical to MSE participation and contribution to the competitiveness of a subsector/cluster?
- For those services that are largely private goods, is the private sector already providing them?
- If not, what are the barriers (cost, cultural, institutional, and risk) that discourage private sector investment and how can they be reduced?

The economic fortunes of all these stakeholders are linked to the growth and competitiveness of the subsector. By bringing these stakeholders together as we have under activities 2&3 we have learned which services are critical to increasing MSE participation in a growing subsector. We also learned which services are critical to the growth and competitiveness of the whole subsector in which large numbers of rural MSE's compete.

¹ Small enterprise in this context refers to micro- and small-scale firms because the constraints and challenges to firms micro and small are similar.

The Kenya BDS project selected a number of subsectors for possible interventions. These subsectors were ranked based on a set of criteria identified in the Project workplan. The subsector that received the highest ranking using a set of criteria that gave considerable weight to growth potential and MSE employment was the tree-fruit subsector. For the purposes of this study this includes mangoes, avocados, and passion fruit.

The consulting team led a participatory workshop with a wide range of participants from the tree fruit subsector. These participants identified constraints to the growth and competitiveness of the subsector and a set of services critical to resolving those constraints. From this list the consultant team and Kenya BDS staff identified three priority services. Kenya BDS will facilitate the development and improvement of these services through a series of intervention fund grants. Immediately following the participatory workshop, a Kenyan consultant began activity four, a BDS market assessment of identified services. Input from Activity 4 will be used to design the tenders for the intervention fund grants.

The three priority services selected during this activity contribute to the competitiveness of the subsector and target the small enterprise producers as the principal client market. They are:

- Improved grading and assembly of product from the small enterprise producer
- Improving quality control (extension, and certification)
- Improved input supply.

There were other services identified by workshop participants which participants felt were important to building the competitiveness of the whole subsector but that do not directly target the small enterprise. Given the interconnectedness between the growth and health of MSEs in the subsector and that of the subsector itself, Kenya BDS staff are encouraged to look at potential MSE impact of services which may not directly target the smallholder.

Terms of trade is another factor to take into consideration in the design and particularly in the monitoring and impact assessment of BDS activities that implicitly support direct and indirect linkages between MSEs and larger firms. Not all interfirm linkages benefit the smallholder. The American history of sharecropping provides abundant weaknesses with this approach. In Japan subcontracting between large and small firms created a group of “captive” firms wholly dependant upon larger firms for all inputs and output markets with minimal control of the terms of trade, payment, or markets. Kenya has had mixed success with direct (subcontracting) and indirect (purchasing from) interfirm linkages between large and small firms. Buyers need better enforcement of quality and quantity agreements, smallholder sellers need the freedom and options to enter into contractual arrangements that result in more income, and more choice.

The remainder of this report is divided into 5 sections. Section 1 summarizes the activities in this report and the methodology used to carry out Workplan Activities 2 and 3. Section 2 summarizes Activity 2: *description of the tree-fruit subsector*, provides a map of the subsector and a describes the critical functions and participants in the market. Section 3 summarizes Activity 3 from the annual workplan, describes those constraints that stakeholders in the subsector felt were critical to growth and proposes a list of business services to alleviate them.

Section 4 summarizes lessons learned, conclusions, and recommendations from these, and for future, activities under Kenya BDS.

Section 5 provides a conceptual framework for the development and delivery of services to rural, poor households. This framework which draws upon examples from Kenya and the region illustrate that:

1. Sustainable increase in large numbers of MSE income can only occur in subsectors and clusters that are growing, productive and competitive.
2. Increasing business service access by rural MSE's requires reducing the real and perceived barriers to business service delivery. These barriers include risk, culture and cost.
3. SE business services tend to be most effective when the services can be implemented by the MSE client and result in relatively quick increase in revenue and income for the MSE operator. BDS resulting in increased incomes for large numbers of the poor requires effective targeting of clients and tailoring of services. Section 5 suggests a framework for mapping the factor conditions of rural households to better tailor services. Rural household factor conditions include proximity to infrastructure, access to financial and other services, and the capacity, experience, technical and management skills of the enterprise operator.

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1.0 Introduction

1.1 Background

Kenya BDS and Kenya USAID SO7

Kenya BDS proposes to achieve the USAID Kenya mission's SO7 Increased Rural Household Incomes, through a subsector based market development approach. The mandate of Kenya BDS is directly responsive to *Intermediate Result 7.3*—increased access to business support services for MSE's. Declining agricultural production and a lack of competitiveness among MSE's contribute to increased poverty among rural Kenyan households. Improving the competitiveness of MSE's will enable them to contribute to the competitiveness of the industries and clusters in which they provide goods and services. But if the subsector in which MSE's participate is not itself productive and competitive, no firms will be able to sustain growth—not even MSE's. The challenge for Kenya BDS therefore is to facilitate increased access to business services for MSE's in productive and growing subsectors.

Markets however are dynamic, competitive and increasingly global. Even firms that are exclusively or predominantly domestic compete in a global marketplace. This is illustrated with the case of fruits in Kenya. The overwhelming majority of Kenya's mangoes are domestically consumed, yet Kenya imports almost all of the mango juice in concentrate from South Africa and Brazil. If a subsector or cluster in Kenya is growing now, there is no assurance that that market will remain competitive in the future. A subsector that is growing today and employs thousands of poor households will only provide sustainable opportunities for improved incomes if it remains competitive in the future.

Linking improved MSE access to business services to increasing rural household incomes creates a challenge. Services provided must be in subsectors that are growing now. Sustainable increases in rural household incomes require that the subsector continues to grow in productivity and competitiveness. Responding to this challenge requires a response to the following questions:

- What clusters or subsectors have considerable growth potential now and employ large numbers of MSE's?
- What services are key to MSE contribution to and benefiting from the growth of the subsector?

But because markets are dynamic and growth now does not ensure growth later, a third question is important if improved service access will result in improved incomes into the future.

- What services are critical for the subsector/cluster continue to grow in production, productivity, and competitiveness?

Kenya BDS is using a subsector-BDS approach to address these questions². The Deloitte (DTT) Kenya BDS 2002-2003 work plan, is composed of seven activities. These are

². For a more detailed description of this approach see the Kenya BDS workplan and the Donor Guidelines for SME development: Business Development Services for Small Enterprises: Guiding Principles for Donor Intervention, 2001 Edition. World Bank Group SME Department, MSN F2K-207.

- Activity 1: Identify and Conduct Subsector Selection
- Activity 2: Conduct Subsector Analysis to Identify Constraints to Growth and Service Gaps
- Activity 3: Identify and Define Appropriate BDS to Address Constraints
- Activity 4: Conduct BDS Market Assessment of Identified Services
- Activity 5: Design BDS Market Interventions
- Activity 6: Tender and Award Market Facilitation Interventions
- Activity 7 Apply Market Oriented Performance Measurement

Activities 2-7 follow and are based on the subsector selected in Activity 1. For quality assurance purposes the Kenya BDS team is staggering activities during the first year. During the execution of Activity 1 three subsectors were identified that met project and mission criteria. One subsector, the tree-fruit subsector started up in January and February 2003. This report covers Activities 2&3 for the tree-fruit subsector. Assistance in the second subsector will begin in June of 2003.

1.2 Methodology

Activity 2: Conduct Subsector Analysis to Identify Constraints to Growth and Service Gaps

The Kenya BDS project makes use of a modified subsector-business service approach developed by Action for Enterprise (AFE). This approach draws on subsector analysis work initiated during the USAID GEMINI project (1991-1995). Subsector analysis was originally used to illustrate the dynamic relationships between all participants in the value chains that make up a subsector and to identify interventions that can reach large numbers of MSE's. Subsector analysis alone has some limitations. It is useful to understand constraints that firms face but has been weak in identifying services that would address them.

The subsector-business services approach has changed this. Local consultants conduct the analysis with active participation by stakeholders working in or providing services to the subsector. The analysis provides stakeholders a perspective of all the transactions and relationships that comprise the subsector and not just the transactions that make up their link in the value chain. Combining subsector analysis with the business services analysis based on constraints identified by the stakeholders themselves, gives them information the information that they need, to identify services that they need, and/or can provide to enhance the productivity and competitiveness of the subsector. The combined Subsector Business service approach was used to identify and prioritize services during Activity 3 for the tree-fruit subsector.

In January 2003, the BDS team completed Activity 1: Identify and Conduct Subsector Selection based using an approach that balanced the objectives of Kenya BDS with specific criteria for increasing household incomes. This approach established criteria and weights to compare a number of subsectors. The tree-fruit subsector (mangoes, avocados and passion fruit) received the highest score. In February and March of 2003 a three-person consultant team began work on tasks specific to the analysis of the tree-fruit subsector.

These tasks were to:

1. *Develop and finalize tools and questionnaires for subsector assessment;*
2. *Refine blue-print subsector map and;*
3. *Conduct Subsector analysis*

Subsector analysis begins with a review of what already is known from secondary data sources. Two comprehensive subsector analyses were of considerable help in this process. The first was the *Sector Study of the horticultural Export Sector in Kenya* commissioned by USAID and completed by FKAB consulting in 2001. The second was a study of the horticulture and pyrethrum subsectors commissioned by Kenya BDS in 2002. The information in these studies was comprehensive and detailed. Based on an initial review of secondary information sources the Kenya BDS team determined that a full subsector analysis would be redundant and an unnecessary waste of project resources. Based on this determination, the tasks for activity 2 were refined to:

1. *Develop the tools and question guides to test and validate constraints identified by participants in the earlier subsector studies;*
2. *Conduct intensive field interviews and focus group discussions with a representative group of stakeholders and based on these interviews;*
3. *Refine the subsector map and identified constraints based on updated information.*

The consultant team made all efforts to ensure that interviews and focus groups included representatives of all function and participant groups in the subsector. To achieve this the team used the preliminary subsector map and source documents to identify principal participants and functions in the subsector. At least one representative from each participant group was included in the interviews or focus groups. The consultant team sent one member to the coastal region where there is significant mango production. Additional interviews were conducted in the central highlands of producers, brokers, processors and input suppliers for mango, avocado and passion fruit. The results of Activity 1 were used to identify and prioritize among a, business services key to increasing the productivity and competitiveness of MSE's participating in the tree-fruit subsector, as well as of the subsector itself.

Early on in the research process, the consultant team had to decide whether to treat mangoes, avocados, and passion fruit as a single subsector for the purposes of analysis or as three. The team determined to base their decision on the degree of intersection in the three fruits among participants, functions in the subsector, and constraints faced by the different participants. Based on initial interviews the team determined that there was a high degree of overlap between the three fruits. Areas of significant deviation are described in the next section but the consultant team felt that the overlap was adequate to treat all three fruits as one subsector with one map and a single process of constraint and service identification (see also the Power Point presentation in Annex 3).

Activity 3: Identify and Define Appropriate BDS to Address Constraints to Growth and Service Gaps The consultant team drafted a list of constraints faced by stakeholders in the tree-fruit subsector from field interviews and focus groups with subsector participants. Following the collection of field data, the consultant team and Kenya BDS staff organized a full day workshop for stakeholders representing key production areas and all functions for mango, avocado and passion fruit in Kenya. Workshop participants included MSE producers, medium sized farmers, processors, exporters, representatives of relevant government ministries and the largest fruit subsector association, F-Peak. Unfortunately no brokers attended the workshop, though some were invited and did participate in the earlier interviews. For a list of workshop participants and program see annexes 3 and 5. During the course of the workshop participants were asked to:

1. *Identify and validate key constraints to productivity, growth and competitiveness in the subsector.*

2. *Rank those constraints that had the largest impact on the productivity and competitiveness of the subsector.*
3. *Identify business services that would address priority constraints, have the greatest impact on rural household incomes, and on the largest number of rural households.*

Participant stakeholders were then asked to further prioritize those services in terms of the following criteria:

1. *Services that could be provided wholly or in large part by private sector providers*
2. *Those that have the highest potential to stimulate growth in product markets*
3. *Those that will have the greatest impact on subsector performance and'*
4. *Target small enterprises.*

Workshop participants drafted a list of 8 priority services. While the bulk of these do target the MSE, some do not. Participant insistence on looking at the subsector and its competitiveness in a holistic manner is a robust indication of their interest and willingness to collaborate and work as a cluster of firms in the future. Workshop participants from all levels in the subsector expressed a lot of appreciation for the workshop's inclusion of a wide sample of participants.

Following the workshop, the consultant team and the Kenya BDS staff further developed criteria to rank the 8 priority services in order to identify three services to be assessed and tendered in Activities 4-6. Services that directly target MSE's were identified by the Kenya BDS team as one of the criteria for the initial priority. Additional services that strengthen the subsector's performance but do not directly target MSE's can be considered in the future. These three services are discussed in section 3.

2.0 Description of the tree fruit Subsector

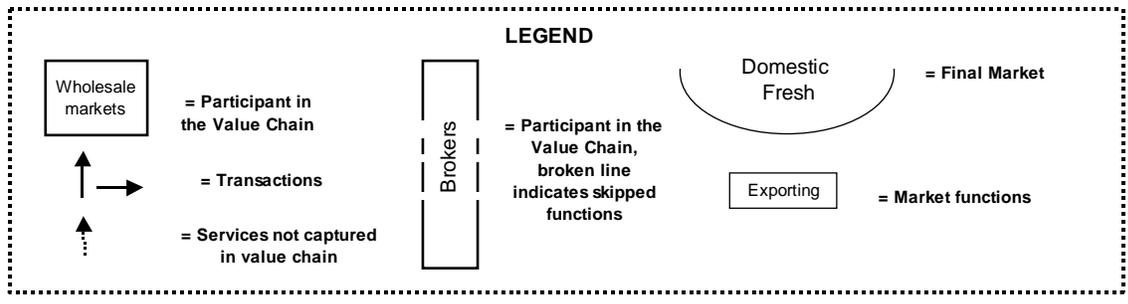
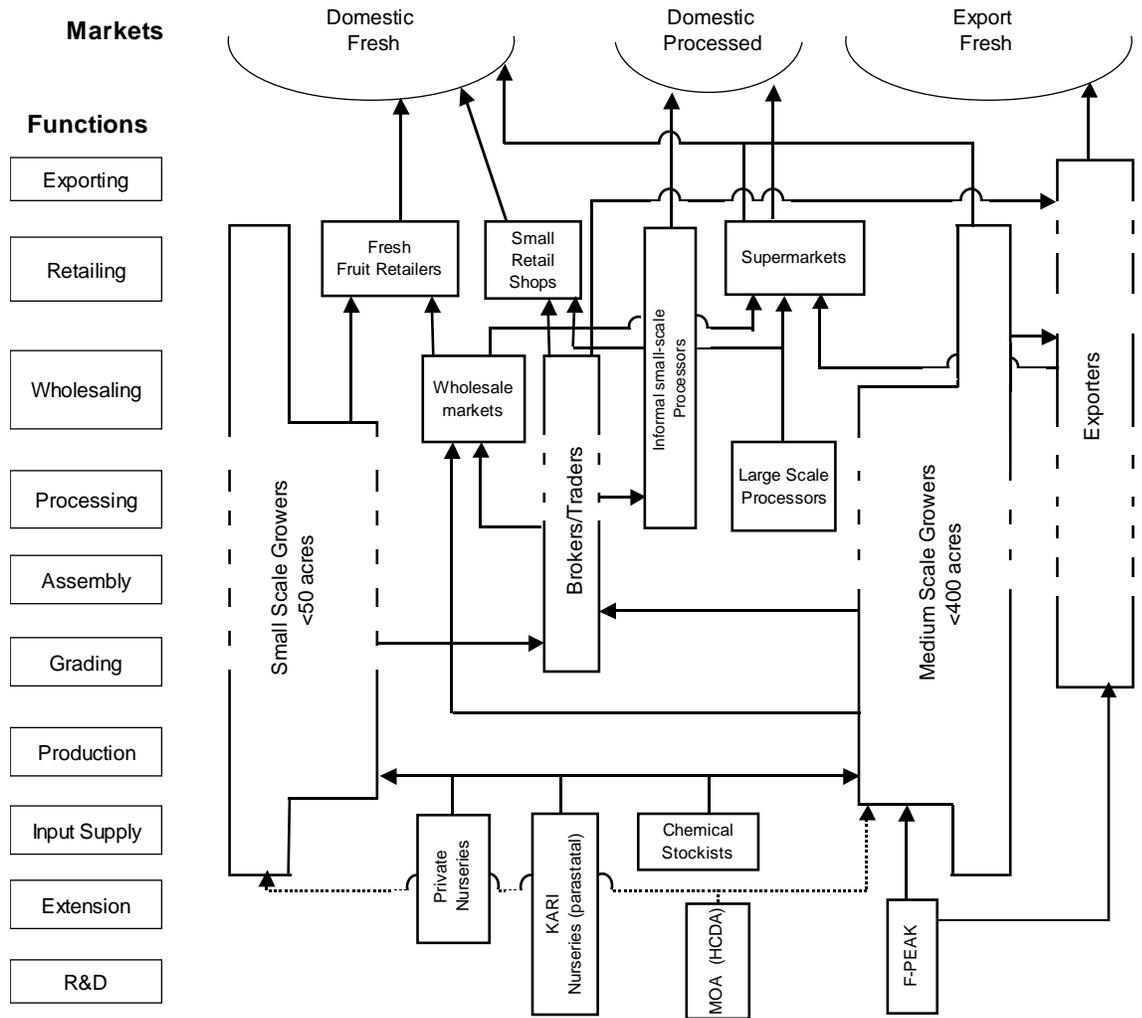
Figure 2.1 depicts the principal relationships in the tree-fruit subsector in Kenya. Like all maps it has its own conventions and seeks to provide enough detail to clarify without providing so much detail that it complicates analysis. The relationships depicted in Figure 2.1 illustrate the main relationships determined by transactions in the tree-fruit value chain. Many other firms, organizations and institutions provide services to, or influence the competitiveness of this subsector. These are not depicted in the figure. The subsector map in figure 2.1 illustrates the dominant transactions in a value chain. Information depicted in figure 2.1 was collected during a set of field interviews by the Kenya BDS research team. The research team also made extensive use of data collected by Mr. Stanley Karuga (Karuga, Kenya BDS 2002). It was not part of the scope of work of this study to collect information on volume of product or value of transactions but much of this information can be found in the Karuga, horticulture subsector study (Kenya BDS 2002). For a detailed description of the value chain for mango, avocado and passion fruit see Karuga's subsector report compiled for the Kenya BDS project and the USAID Kenya commissioned horticulture subsector report,

Figure 2.1 illustrates the principal functions and participants involved in the tree fruit value chain. Solid arrows indicate transactions, broken arrows indicate services not captured in the value chain. The vertical height of each participant is determined by the functions (listed on the vertical axis) performed by the participant. Skipped functions are indicated with a broken line. To illustrate, the exporters (participant box at the far right of the map) perform grading, wholesaling, and exporting but do not generally perform assembly, processing or retailing. These latter three functions are skipped by exporters and represented by the dashed line on the exporter box.

Subsector analysis often refers to value chain channels or just channels. In the tree fruit subsector in Kenya there are essentially two channels. The first is dominated by small-scale producers and is characterized by lower level of technologies, input use and commercial orientation of the producer. Medium scale growers dominate the second channel. These growers are commercial farmers, most of whom sell at least part of their product into the export market. Given the domination in number of firms and production volume of the small-scale growers, the sector is unlikely to increase its competitive advantage without significant MSE participation. As this begins to occur the blurry lines between the two channels will fade further.

2.1 Markets. Three markets were identified for tree fruits in Kenya. The largest of these is the domestic fresh market consuming 80% of all avocado production, over 98% of domestic mango production and 96% of the domestic passion fruit (Karuga, Kenya BDS 2002). The second largest market for tree fruits is the export market. The smallest but rapidly growing market is the domestic market for processed fruits. The bulk of processed fruits is sold as juice. While there is a small amount of juice sold on the domestic market that comes from Kenyan fruits, the vast majority of juice sold in Kenya is packaged in Kenya from concentrate imported largely from South Africa and Brazil.

Figure 2,1 The Tree-Fruit Subsector in Kenya



2.2 Market Functions The following are the principal functions identified in the tree fruit subsector. Each function represents a link in the value chain. A single participant, indicating a degree of vertical integration, often performs a number of functions.

Research and Development from disease resistant varieties, market preference and production-post harvest handling is a critical but underdeveloped function in this subsector. The R&D function is often thought of as a public good and is dominated by the Ministry of Agriculture in many countries. More and more exporters, producer associations, and seed and chemical companies are playing a leading role in this function.

Extension Services include all farm-gate support and technical assistance from production planning to post-harvest handling. MoARD, HCDA, FPEAK and private firms deliver these services in Kenya.

Input Supply includes chemical inputs (fertilizers and pesticides) and nursery stock.

Production refers to the cultivation of either mangoes, avocados, and passion-fruit or some combination of the three.

Grading and sorting is a post-harvest process where the product is separated based on quality attributes determined by market demand. The fruit grading function is weak in Kenya and grading at the smallholder farm-gate is irregular. Lack of adequate grading standards is perceived as a cause of loss to the small holder as brokers who buy their product grade at the selling not the buying point but only pay for what they sell. The importance of standards and grading will continue to increase and will largely be driven by export demand.

Assembly is a service to reduce transaction costs performed by intermediaries in the market, largely brokers who purchase from multiple small holders deliver the assembled product to their buyers. There is little product assembly at the exporter level although there it appears that assembly at this level could significantly reduce transaction costs.

Processing The bulk of domestic processing is as juice for Mango and Passion Fruit. There is also a small amount of seasonal avocado oil extraction. The principal market for processed juice are hotels and restaurants. Some of this product may be mixed with imported concentrate. There are close to 20 industrial processors of fruit juice. The list of small-scale informal processors is much larger.

Wholesaling is the service of breaking up an assembled product into units small enough to be sold by individual retailers. Several participants in the Kenya tree-fruit subsector perform this function.

Retailing breaks down a product further into consumer and household sized units. There are a range of retailers in Kenya from open-air market vendors to large supermarkets.

Exporting The principal exporters for mango sell the bulk of the product to the Gulf Coast Countries (GCC). There are a few very large international exporters in Kenya including Del Monte. The majority of exporters are smaller than those in the cut flower and vegetable subsectors and sell to consignment buyers.

2.3 Participants As indicated above, the Kenya tree fruit subsector is not as developed as the cut-flower or vegetable subsectors. There are very few large firms or farms in this subsector.

Small Scale Producers This group is composed of approximately 100,000 farm households the vast majority of which farm on less than one acre (MOARD). These small-scale farmers account for about 75% of total tree-fruit production in Kenya. Based on interviews of constraints faced by small farmers and for the purpose of this study we chose to group all producers with 50 or fewer acres into this category. The overwhelming weight of production by small scale producers in this rapidly growing market is the strongest argument for building the competitiveness of this sector as a strategy to increase rural household incomes.

Medium Scale Growers are those growers producing on less than 400 acres of land. While there is a small number of very large farms that dominate the pineapple and banana subsectors, the small and medium producers dominate the avocado, mango, and passion fruit crops. The principal production difference between the medium and small scale producers is in the use of inputs and professional management. The result is an enormous yield and quality difference. Medium scale growers make use of some combination of irrigation equipment, fertilizers (chemical and organic) and sprays. The use inputs gives the producer more control over production timing and yields appear to be 75% higher than production without input use.

Brokers/traders provide a critical assembly and rudimentary grading service. Brokers generally do not take ownership of the commodity and traders do. With many other commodities in Kenya this distinction is clear. The issue seems less clear with tree fruits and the role is combined for the purposes of this analysis. Broker traders are the major buyer of small holder surplus. Often they will come to the small holders' farm and pick themselves. In some cases they do not take possession and only pay for what they sell or claim to sell. There is a widespread belief that broker/traders exploit the smallholder farmer. While there was some evidence of seasonal rent-taking, brokers claimed that during glut seasons they lost money. Because brokers and traders have contact with so many small scale farmers they are an attractive point at which to deliver business services. Some brokers and traders will be forced out of business as the issue of standards, grading and product traceability (EU regulations) become accepted by the industry—unless they adapt and offer a wider range of TA and post-harvest handling services for their clients. Brokers and traders sell to processors, exporters, wholesalers, retailers and institutional consumers.

Informal small scale processors account for over 2/3 of the fresh juice production in the major metropolitan areas of Kenya serving restaurants, hotels and stores and consist of over 1,000 predominantly MSE firms.

Commercial Processors There are about 20 formal commercial processors of mango, avocado and passion fruit in Kenya. Very little avocado is processed though at least one firm is extracting avocado oil on a seasonal basis. Most of the commercial juice processors import juice concentrate primarily from South Africa and Brazil that is packaged and sold in the Kenyan markets. There is

also a small amount of passion fruit juice exported to the Netherlands. There is virtually no drying of mango in Kenya by small or larger commercial processors.

Wholesale Markets are located in most of the urban and per-urban centers in Kenya. These markets buy primarily from brokers and traders. Some growers also sell direct into the wholesale market. Some of the wholesale markets visited had no or inadequate cold facilities to ensure the delivery of a quality product with a reasonable shelf life to the retail markets.

Retail Markets These are comprised of a very large number of green-grocers and outdoor market fruit and vegetable vendors, small retail shops selling a diverse product line, and a small number of large modern supermarkets. The urban green-grocers and some of the supermarkets cater to a more affluent Kenyan and expatriate clientele who demand a quality of product equal to what they could find in Western country markets. Demand expressed by the high-end clients of these markets if exploited is one of the forces that can contribute to building the competitiveness of the tree fruit subsector. This growing domestic demand is an important and market stabilizing force for those producers and exporters targeting the high-end market for at least part of their product.

Exporters The majority of exporters of mango, avocado and passion fruit are small to medium scale firms. There are approximately 300 fresh fruit exporters in Kenya. The relatively small size of the Kenyan tree fruit exporters creates transaction costs inefficiencies and as a result most of these exporters both buy from and sell to brokers—often on consignment. Avocado exports dominate, accounting for about half of Kenya’s share of fresh fruit export value. Rapidly increasing export quality controls will inevitably force many small-scale exporters to either associate under a single marketing entity or go out of business. There is potential for F-PEAK, a fruit industry association to play a role here similar to that played by Hortico, an exporters and growers association in Zimbabwe.

Nurseries There are approximately 400 private small scale fruit tree nurseries in Kenya. Most of these do not practice any selective breeding and there is some concern that some nurseries use seed stock from rejected fruit, thus breeding in lower quality traits into new seedlings. This is also the case for the many small-scale farmers who produce their own seedlings. The Kenya Agricultural Research Institute (KARI) does conduct some research and maintains and distributes seedlings to both small and medium scale-growers. Commercial growers interviewed communicated concern about a lack of a strong genetic research program feeding into the nurseries. Clearly strong focused R&D into varieties and disease resistance is critical if Kenya is to become competitive in the longer run in tree fruit exports.

Chemical input suppliers The market for agricultural inputs is relatively open, and numerous chemical stockists can be found throughout the country. Small-scale farmers complained that there is very little information on appropriate use or of the yield impact of chemical inputs. The stockists are regulated by the Kenyan Plant Health Inspection Service.

MOARD/HCDA The Ministry of Agriculture and Rural Development and the Horticulture Crop Development Agency provide extension services and a range of business services to stakeholders in the horticulture sector. These include advising outgrower groups on production-post harvest handling; ensuring adherence to MRL and other quality standards; registration and training of nurseries; and licensing of exporters and; operation of cold chain facilities. HCDA also publishes a

trade journal. It was the opinion of a number of participants that private providers could offer many of the services currently provided by the MOARD and HCDA.

F-Peak and Producer and Marketing associations F-Peak provides extension, representation, advocacy, marketing, services and promotes quality standards. Compared to similar associations in Zimbabwe, South Africa, and Zambia, associations representing the needs and concerns for producers and exporters in Kenya are fairly weak. Private producers continue to hold on to skepticism that F-Peak still reflects its public sector origins. There is also a mango producers association. This association is also weak but like F-Peak, has potential to play a stronger role in facilitating collaboration in the subsector. The critical importance of coordination and cooperation among stakeholders to maintain and build productivity and competitiveness of the subsector argues for a strong association or network of stakeholders. No associations at this juncture are able to meet this critical coordination need.

3.0 From Constraints to Services: A participatory Approach to Service Identification

This section describes the implementation of Activity 3: *Identify and Define Appropriate BDS to Address Constraints to Growth and Service Gaps* of the Kenya BDS annual action plan. There were three sources of information on constraints to growth in the subsector. These were:

- Secondary sources collected from two earlier horticulture subsector reports (USAID 2001, Kenya BDS 2001),
- Field interviews and focus groups with stakeholders representing all participant groups in the subsector, and;
- A participatory stakeholder workshop where participants validated and modified existing constraints prioritized them and identified a set of predominantly private sector business services that would address the most critical of these.

The remainder of this section summarizes constraints identified from the three sources listed above, indicates which constraints were considered highest priority based on criteria developed by the consultants and the Kenya BDS team. From a short list of priority constraints participants at the participatory stakeholder workshop identified a set of business services that could effectively address the identified constraints. From this list of business services the consultants and Kenya BDS staff drafted a set of proposed interventions.

3.1 Identification of Constraints in the Tree-fruit Subsector

On 24 February, 2003, Kenya BDS project staff and the consultant team held a one day workshop of key stakeholders involved in the production, transformation, marketing, export and support of mangoes, avocados and passion fruit. The purpose of this workshop was to implicate stakeholders in the identification of constraints to growth in the subsector and the proposition of services to alleviate those constraints. A secondary objective of the workshop was to begin building cohesiveness and early coordination among participants in this subsector. Increased cohesiveness and coordination among participants is a critical step in building higher levels of competitiveness and productivity within the subsector.

Implicating stakeholders, who earn their livelihoods from the subsector in the identification of constraints and services that address them, is an important part of the subsector-business services methodology used in the Kenya BDS project. The consultant team kept questions and discussions on a very practical level and avoided the use of BDS jargon where possible. During the stakeholder workshop participants were asked the question, “What is keeping your and other firms from earning more income from mangoes, avocados and passion fruit?”

The consultants worked with the participants to ensure broad consensus on the answers to this question. Submitted constraints were then grouped into categories. Following the identification and classification of constraints stakeholders were asked, “Of all constraints to increased incomes, which are the most important and need to be fixed first?” The categories and constraints follow. Constraints which participants classified as “most important” are indicated with arrows below.

3.1.1 Information, organization, and management constraints constitute the majority of all constraints identified by stakeholder participants. Dominance of constraints in this category suggest that the level of organization and coordination within this subsector is weak. Weak coordination and organization among participants in a cluster or subsector is the most common and perhaps the most important constraint to increasing competitiveness of the subsector. Facilitating a higher degree of cooperation among participants will be one of the life of project challenges for Kenya BDS staff and participants in the subsector.

Constraints:

- **Lack of trust** between small holders and brokers; between brokers and exporters; between exporters and the consignment buyers to whom they sell.
- **Weak R&D agenda** A number of factors were mentioned. Most of the R&D conducted in this subsector is not coordinated and not linked to demand. Particular needs for R&D were identified in production and post harvest technologies
- **Lack of small holder management skills** There was a general consensus that most small holders particularly of mangoes and avocados, which require less management than passion-fruit do not view their operations as a business, lack management skills, and do not use inputs. While small holders control most of the production in Kenya the lack of application of business practices results in poor quality product, high slippage rates and marketing inefficiencies.
- **Low level of cold chain utilization** The government of Kenya has invested in a series of cold chain facilities. Government estimates that current facilities can hold 7% of current production, but that utilization of these facilities is extremely low. A number of private sector commercial growers indicated a lack of trust in the management efficiency of these government units and suggested that they be leased to private firms. This lack of trust was also expressed in general terms as a lack of partnership between MOA HCDA and the private sector
- **Lack of market information** This constraint exists at two levels. The first is among small holders who are unaware of markets, quantity and quality requirements, and price. As a result small holders feel victims to the broker/traders who are believed to have superior access to market information. Exporters, most of who are relatively small and sell primarily to consignment buyers felt that they are at a disadvantage and have little understanding of the markets into which they sell (EU and GCC). As a result they often do not get paid for what they ship with consignment buyers often complaining about poor product quality or declining market prices.
- **Lack of information about MRL's, EU, and other export market requirements** This constraint is more specific than the market information constraint above. Lack of information on product quality and the dynamic requirements of high value markets is perceived as the major threat to expanded, or even continued access to EU markets by Kenyan exporters. This information gap occurs mostly at the smallholder level, but has an impact on larger grower and exporter ability to increase exporters through subcontract and outgrower relationships with smaller producers.
- **Lack of certification, MRL, traceability, organic, pest residue** The above constraint concerns getting information on market requirements to small holders and to the firms involved with assembling small holder product for market. This constraint addresses an institutional weakness—lack of appropriate controls and enforcement mechanisms to ensure that product assembled matches the requirements of the market it is assembled for.
- **Low knowledge and skill level in crop husbandry.** This is the technical side of the lack of management skills constraint among small holders.
- **Inadequate extension services** Most participants agreed that the existing extension network lacked the resources to provide adequate technical and management skill transfer to small

holders. There is also a lack of coordination between private stakeholders in the subsector to influence and shape the extension agenda so that it becomes more dynamic and responsive to market requirements.

- **High cost of product assembly** This constraint arises from inefficiencies and lack of information at the farm gate. There is very little grading or packaging at this level. Broker traders often pick just what they think they can sell to a particular buyer leaving the rest of the crop on the tree. Poor packaging, transport and, low cold chain utilization leads to high slippage rates further increasing losses and contributing to high product assembly costs.
- **Poor match between varieties demanded and those produced** This is related to the R&D constraint above. Most of the mangoes and avocados are quite old. The bulk of Kenyan avocado produced by small holders are Fuerte. The major demand by the EU market is for the Hass variety. There is also very little product differentiation in Kenya. Hass and Fuerte are but two of a large number of varieties each desired for its own characteristics. Fuerte avocados have much higher water content and tend to be sweeter than the Hass varieties and better suited for some processing. Hass are desired for their higher oil content. There is currently almost no processing of avocados in Kenya. An exception is a seasonal oil extraction plant from South Africa. Kenya produces large quantities of the “apple” mango that has many of the qualities desired by the EU market. At this time almost all Kenyan mango exported is sold into the generic mango market and mostly to consignment buyers.
- **Low quality product** Lack of input use, lack of variety selection, and poor production through post harvest technology all diminish the quality of the product particularly at the small holder level. This constraint is therefore linked to the R&D.
- **Lack of domestic and export product promotion.** This constraint is important because it is a factor that impacts the growth potential of the overall subsector even though it does not necessarily lend itself to a service or an intervention that specifically helps the small holder. Normally establishing local brand identity in the domestic and export markets require a high degree of coordination among a broad group of stakeholders and coordinating agencies.

3.1.2 Input supply Constraints can exist for a number of reasons. Since the reason we are trying to understand the constraints facing participants in the subsector is to identify services that would address them, it is important for us to understand the underlying causes of these constraints. Most of the constraints listed above arise from poor coordination among participants in the subsector. The underlying causes of the input supply constraints are not as clear and it was difficult to establish a consensus on the underlining causes during the participant workshop. Systemic problems in the legal and regulatory environment may constrain importers in licensing or being able to import without paying excessive duties, but most participants indicated that legal and regulatory constraints were not critical. Poor protection of intellectual property rights might make it difficult to access or develop new varieties that meet market demand and are suited to local environments. This has been the case in Kenya, but there have been a few cases in the cut flower industry where intellectual property rights for imported genetic stock has been protected. In some environments lack of input access, at least at the small holder level may be caused by a lack of credit access for input suppliers at terms that would allow them to sell inputs on credit. Credit access was cited as one of the constraints facing the subsector so this might explain part of the input access problem. The principal input access constraints identified by the participant stakeholders are:

- **Lack of genetic stock** More information is needed to determine whether this is an intellectual property right problem, an information problem or an extension problem.

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 • ***Insufficient local supply for processing*** This constraint was particularly illuminating because small holders were complaining about continual surplus and large quantities of product that are either used as animal feed or rot on the trees. At the same time processors and exporters complained of not being able to obtain an adequate supply of the raw fruit either for processing or exports. Surplus supply at one end of the value chain and excess demand at the other suggests a market imperfection. Resolution of product quality, market information, and product assembly constraints should have an impact on this constraint.
- 
 • ***Lack of appropriate processing technology*** This is particularly the case for small scale processing of fresh juice and processed fruits for the local market. There were no firms drying mangoes for the domestic or export market. A cursory look at retail stores from tuck shops to supermarkets in Nairobi and the significant level of imports of juice concentrate suggests that there is a local market for fresh juice. Participant stakeholders indicated that the problem had to do with a lack of information on appropriate technologies.
- 
 • ***Lack of input access*** The bottleneck here appears to be a market and an information access one. Input suppliers interviewed indicated that small holders do not use inputs on fruit trees so this market does not appear a lucrative one for chemical stockists. This constraint illustrates the interconnectedness of many constraints. If small holders had access to higher value markets, they would also begin to demand both information and inputs needed to serve those markets. To some extent however access to higher value markets depends on improving the quality of the product through the improved use of inputs.
- 
 • ***Lack of credit access*** This constraint was expressed both by small holders and by larger firms interested in investing in plant and equipment. Kenya is one of the leading countries microfinance markets in Africa but is certainly possible that Kenya's microfinance institutions do not extend services to smallholder farmers. The dominant form of financing of smallholder farmers is in the form of input credit from suppliers. Since these suppliers do not yet see the market, it is likely that small holders who wish to purchase inputs may have difficulty finding a supplier to sell on credit.
- ***High cost of inputs can*** be due to inefficiencies in the distribution of inputs resulting in high transaction costs. This does not appear to be the case in Kenya with smallholder producers of mango, avocado and passion-fruit. The greater constraint appears to be the returns from input use do not appear to cover the costs of using them. It appears that the input cost constraint is closely linked with a market access and product assembly constraint.
- ***Expensive irrigation equipment.*** Irrigation equipment and input use allows mango growers to change the production season so that their peak production period falls during the short season. This practice provides premium prices to producers. Most small holders believe that the cost of micro irrigation equipment is outside of their capacity to pay. The consultant team did not look at irrigation budgets for small holders. All medium scale growers use irrigation on their fruit trees and believe that the returns given the premiums they earn for marketing during the short season justifies the investment.

3.1.3 Infrastructure Constraints are difficult to address in a BDS project. They are important to recognize however because significant infrastructure constraints can prevent a subsector from ever becoming competitive. This in turn will constrain growth in the subsector which will limit opportunities for smallholders to earn more in the subsector. It was the general consensus of most participants at the stakeholder workshop that infrastructure constraints, particularly poor roads were an important constraint to increasing the productivity and competitiveness of the subsector. Infrastructure constraints are included here because firms who take risks and earn their living in this

subsector told us there are important. There is not necessarily an appropriate BDS intervention to address these. They include:

- **High freight costs** This constraint is often articulated by smallholder farmers as a the main reason that they cannot sell their product profitably in regional and urban markets. The consultant team found no evidence of price fixing by transporters. This suggests that while high freight costs may be the problem, improved product assembly either by broker traders or smallholder groups is the only realistic solution.
- **Inadequate cold chain** Currently there is minimal use of cold chain by small holders producing mangoes, avocados and/or passion fruit. HCDA has underutilized cold chain facilities and there is at least the possibility that these could be leased to private firms. Demand for cold chain is unlikely to increase significantly until there is considerably more coordination in the subsector, a precondition for increasing exports to the EU which will require greater use of cold chain facilities.
- **Bad roads** Identified as a critical constraint especially during the rainy season. Participants were guardedly optimistic that with the new government there would be more investment in rural infrastructure. This constraint is not likely to be alleviated in the short term nor is there an obvious BDS solution to address it.

3.2 Identification of Key Business services to address critical constraints

After the participant stakeholders ranked the ten most important constraints, the consultant team directed an exercise in which participants were asked to identify business services that would address one or more of the most important constraints. The consultants explained that often constraints are interconnected so a single service may address multiple constraints. It is also possible that a single constraint is complex and has multiple components and may need more than one service to address. The consultants encouraged participants to provide examples of each case as an illustration.

Workshop participants were asked to break up into small groups to identify key business services that could eliminate or at least mitigate the critical constraints. Workshop participants were asked to rank services based on the following criteria:

- Impact on rural household income
- Impact on the largest number of MSE's
- Services that could be provided wholly or in part by private sector providers
- Potential to stimulate growth in the whole subsector (product markets)
- Potential to strengthen the performance of the value chain.
- Target the smallholder.

Not all of the above criteria are complementary. A number of participants observed that some services might be very good at reaching the small holder but have little impact on stimulating growth in the subsector. This was a source of rich discussion and some argument among participants. While most participants agreed that increasing smallholder participation, particularly in the higher value markets would benefit the whole subsector, there was no consensus on the relative weights of each criterion above. Nor should there be. Each participant represents a different position and perspective on the value chain. The consultants asked participants to rank their services based on the above but to assign their own weights based on their perceptions of which criteria were the most important.

Participants were also asked who they thought could provide this service. The results of this exercise were very interesting because a number of participants indicated that they either already were or could with some support provide the critical service. At the end of this exercise workshop participants came up with eight services based on the criteria above.

1. Improved Product assembly and grading.
2. Financial brokering (supplier credit and processor financing)
3. Quality control for MRL, source of production traceability, and weevil control
4. R&D for locally adapted varieties, appropriate processing technologies particularly for drying, and consumer preference testing)
5. Increased input supply targeted to the smallholder
6. Increased supply of appropriate technology for irrigation and processing
7. Business skill training for smallholders
8. Establishment and marketing of Kenya “brand” label.

The identification of critical services by workshop participants completed the workshop. Participant stakeholders reported a high degree of satisfaction and appreciation for being included in the design and development of project activities (more on this in the lessons learned section).

Kenya BDS staff and the consultants met after the workshop to develop a short list of three highest priority business services. Following the Kenya BDS methodology each of these three services would be assessed to verify demand, establish whether or not current providers already existed, and assess the quality of current service delivery. Based on this assessment Kenya BDS will offer a series of tenders with its intervention fund to both providers and facilitators interested in offering particular services or facilitating improved service delivery. The three services selected by the Kenya BDS staff and consultants are:

1. Improved product assembly and grading
2. Improved Quality control (extension, certification, establishment of grades)
3. Input supply at the smallholder level.

In March 2003, Kenya BDS staff conducted market assessments of these three services. The result of that assessment will be used in the development of initial tenders.

4.0 Lessons learned and Recommendations

4.1 Lessons learned The following “lessons learned” were drawn from the interviews, focus groups and one-day participant workshop as well as from discussions among consultants and Kenya BDS staff during this assignment. They are not ranked in importance; they stand alone on their own merits.

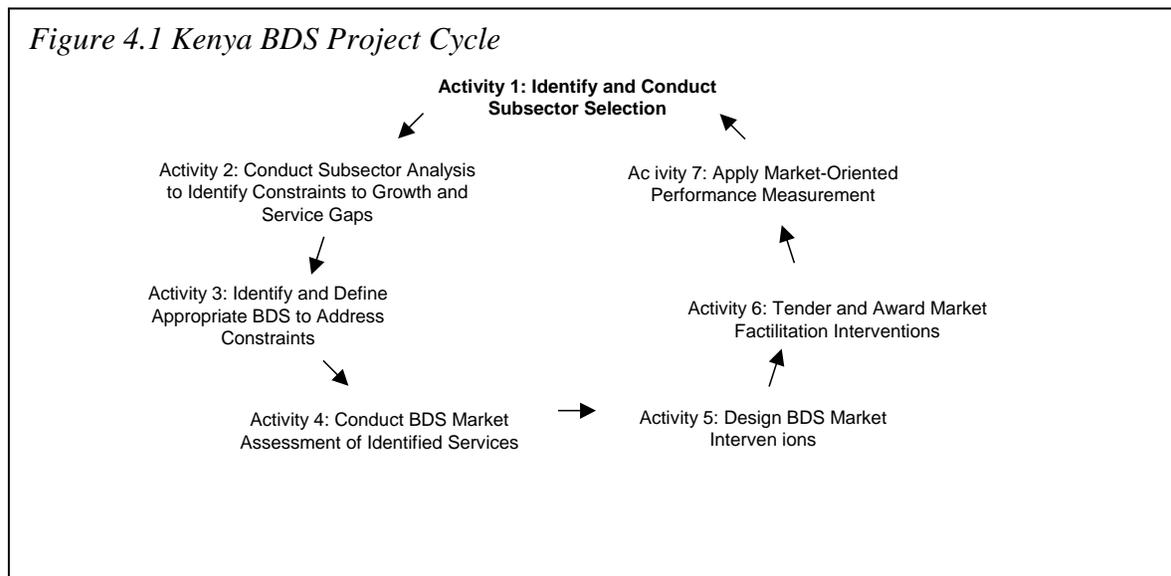
- **Bringing stakeholders together to make deals is itself a business service.** At 100% of the participatory stakeholder workshops I have facilitated or observed, participants value the opportunity to meet other participants and make deals. The deal making aspect of bringing participants together suggests that stakeholder meetings and workshops are themselves a business service. To the extent that part of the service of bringing participants together creates private goods, firms should be willing to pay for part of the costs of these workshops.
- **The tree-fruit subsector is considerably less developed than the rest of the horti- and floriculture subsector.** The lower level of organization among producers processors and exporters of mangoes, avocados, and passion fruit is creates both opportunities and challenges for Kenya BDS and the participants in this subsector. There are few outgrower schemes in tree fruits. Exporters are relatively small and compete against each other to sell to consignment buyers. Low levels of coordination suggests that there are opportunities for innovations to increase productivity and growth at multiple levels. Kenya BDS faces the challenge of facilitating greater coordination within the subsector and increased MSE contribution to the subsector’s growth.
- **Bringing together stakeholders from most or all functions in the value chain to identify constraints and services increases their commitment to invest in and contribute to solutions.** A positive outcome of the workshop was the absence of expectations that Kenya BDS or USAID was going to fix the problem. A number of participants already provide services that address important constraints, others expressed interest in learning how they could provide or contribute to provision of services to strengthen the subsector.
- **Business services that target MSEs are necessary but not sufficient conditions to ensure sustainable increases in rural household incomes.** There has been an evolution in donor approaches to microenterprise development. In the 80’s there was a lot of focus on skill building and training of microenterprise operators with little attention to the performance of the clusters and subsectors in which MSE’s provided goods and services. Concern for impact on large numbers of microenterprises led many donors to look for leverage. Working with subsectors that employed large numbers of MSE’s provided leverage. Often it also led to overcrowding by MSEs in activities with diminishing marginal returns. In other instances MSE participation was temporary as subsectors became more concentrated and integrated. Sustainable increases in MSE incomes for large numbers of MSEs require that MSEs and the subsectors they work in become and remain competitive. A business service approach to improve MSE incomes should look at strategies to facilitate MSE contribution to that competitiveness but also at services that increase the competitiveness of the whole subsector.
- **BDS is a means to an end, not an end itself** There is a lot of discussion and debate on what is good or best practice in BDS. BDS is a much broader universe of activities that financial services defining a narrow set of good practice is much more difficult than for financial services. The provision of services to increase firm income and subsector and cluster productivity is not new. Terms that include BDS facilitator and BDS provider, are relatively new. The terms are useful to helping us understand whether our activities create undesirable market distortions, and whether the incentives exist for a range of providers to continue providing needed services after subsidies are removed. BDS concepts are best used as a filter to look at a set of interventions that

make sense to us and respond to clear needs rather than a set of rules about what can or cannot be done. The real measure of success for the Kenya BDS project will be the number of rural households who earn significantly more than they did or would have in the absence of the project. Sustainable growth in MSE income for large numbers of firms without ongoing subsidy is the most important measure of BDS good practice.

- Kenyan BDS partners (providers and facilitators) need more than facilitation and grants.** The participant workshop made it clear that there are a number of private firms already, or at least ready, to provide a range of services. The quality of these services is critical to ensuring impact. Much has been learned in recent years about the delivery of product assembly, standards and grading services to MSE's. The same is true for building competitiveness within sectors. Information is available on how to facilitate direct and indirect linkages between MSE's and larger firms. Sustainable linkages that increase MSE incomes provide MSE's access to higher value markets without their becoming captive firms. Conversely larger firms benefit from access to a quality and quantity of product at lower transaction and capital investment costs. Facilitation of the services identified in this report will require an active partnership between grantees, stakeholders in the subsector and the Kenya BDS staff.

4.2 Recommendations for Activities 4-6

Activities 4-6 constitute the heart of the Kenya BDS approach. Figure 4.1 below illustrates each of the project cycle steps. These steps include a market assessment of services, the design of BDS market interventions and the tender and award of Market facilitation interventions.



These activities follow a process developed in collaboration with Kenya BDS and USAID mission staff. The process is a good one. The devil is in the details however. The following list of recommendations is based on an effort to anticipate some of those details.

- BDS market assessments should make an effort to collect key lessons learned from similar services and experience both from Kenya and elsewhere.** The market assessments in the current methodology attempt to identify supply, demand, willingness to pay, and potential service

providers. This is important information. Background information on lessons learned is useful both in the design of interventions and in assisting providers and facilitators participating in the program to be more effective at providing or facilitating services.

- **Kenya BDS should work in close collaboration with service providers or grantees funded by the program.** There are a number of models for funding agency grantee relationships. Under the Kenya BDS project grantees become implementing partners for the project. Grants will be structured so as to avoid subsidy of services especially at the point of transaction. Project staff will be careful to think through how services can continue after the project without external subsidy. The goal however is to increase MSE incomes through a set of activities that increase the productivity of the subsector and of the MSE's in it. To ensure results Kenya BDS project staff should work as mentors and conduits of information on best practices to grantees.
- **Avoid BDS jargon in communications to grantees and participants in the subsector.** There is already too much of it in this report. We are trying to raise enterprise incomes, we do not need the market to understand what BDS paradigms, facilitators, providers, or market distortions are. Jargon will confuse more than add clarity.
- **Draft interventions that strengthen coordination within the subsector even if all of them do not directly target the MSE.** Without doubt most of the activities funded by Kenya BDS should target the MSE. Lessons learned from supporting MSE's while ignoring the competitiveness of the subsector suggest that both need to occur and at the same time.
- **Draft interventions to strengthen MSE organizations** MSE's in this subsector are largely fragmented and lack strong cooperatives or marketing institutions that represent them. This weakens their sustainable access to the discussion table on how to build the subsector and places them in a position of constantly needing a benevolent broker, like Kenya BDS, to ensure that their voice is heard. Building capacity of smallholder groups is not an alternative to other service delivery approaches. It is critical to building the capacity of smallholders to maintain a voice in discussions on how to build the competitiveness of the subsector.
- **Consider funding competing approaches to provision of the same service.** There is an experimental component to Kenya BDS and different approaches to providing the same service. Project staff should be careful to separate out impact by requiring competing provider approaches to work in different geographical areas.
- **Draft interventions that 'target and tailor' services to MSEs.** MSE's vary considerably in their factor conditions (see next section). Factor conditions include access to infrastructure, management and husbandry skills, entrepreneurship, and level of organization. Despite diverse factor conditions most MSE's will respond to opportunities to earn more income. Not all MSE's have the factor conditions necessary to participate in all markets; most have the capacity to improve the quality and quantity of their product or organize to reduce transaction costs so that they can sell into higher value markets than they are currently selling in.
- **Use BDS principles and donor guidelines as a guide not a rulebook.** The litmus test for good BDS is whether services provided result in increased MSE incomes, quickly and sustainably—where sustainably means without ongoing subsidy. Current BDS principles should be used as a lens through which we can improve upon the design of sound interventions; they should not be used as filter through which all possible interventions must pass.

5.0 A business service approach to increasing rural household income: Increase productivity and competitiveness, reduce perceived barriers to increased service delivery, and target services to MSE factor conditions.

Kenya BDS will achieve the intermediate result *IR 7.3*, —increased access to business support services for MSE's. and in so doing help realize *SO7*, Increased Rural Household incomes by combining elements from three sources: the BDS approach as articulated in the Guiding Principles for Donor Intervention, tools from subsector approaches to economic development and lessons learned from a range of private sector-donor approaches to MSE development. What have we learned that will help us maximize sustainable increases in MSE incomes for rural households in Kenya?

1. Sustainable increase in large numbers of MSE income can only occur in subsectors and clusters that are growing, productive and competitive.
2. Increasing business service access by rural MSE's requires reducing the real and perceived barriers to business service delivery. These barriers include risk, culture and cost.
3. SE business services tend to be most effective when the services can be implemented by the MSE client and result in relatively quick increase in revenue and income for the MSE. Successful business service delivery requires effective targeting of clients and tailoring of services.

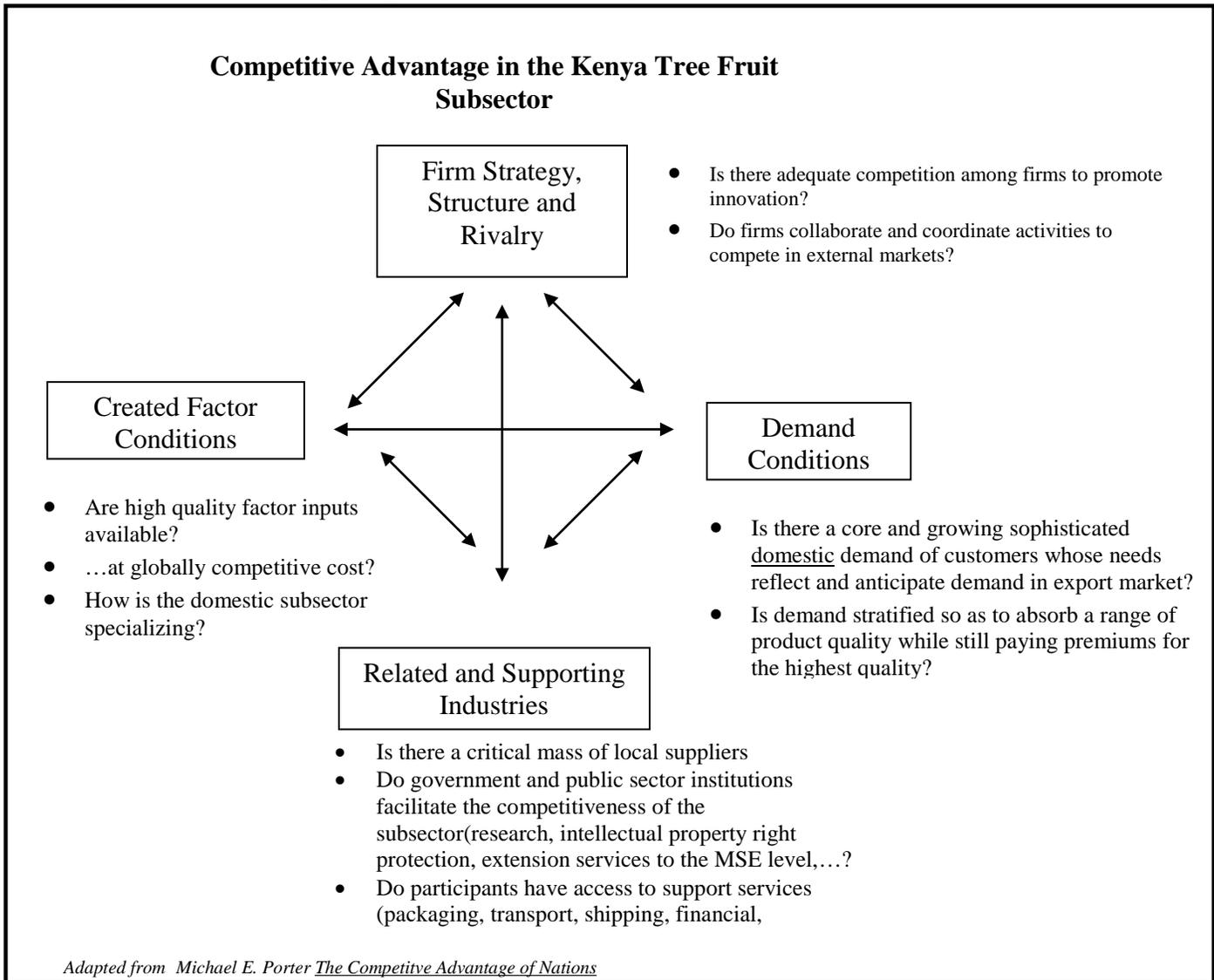
The challenge for Kenya BDS is to act as a facilitator in subsectors that are currently growing or have significant growth potential to: help increase the competitiveness of the whole subsector; identify those services that will enable a broad range of MSE's to contribute to and benefit from the increased competitiveness of the subsector, and reduce the real and perceived risks and costs of business service delivery to large numbers of MSE's. The selection and prioritization of business services that Kenya BDS will design and tender under Activities 6 have and will continue to consider the above challenges. One of the exciting results of the participatory workshop held under Activity 3 was that many of the stakeholders were aware of and openly discussed what needs to be done to increase the competitiveness of the subsector, what the barriers were to increased service delivery to MSE's and the frustrations poor targeting and tailoring of business services.

The following section provides a brief framework for looking at each of these elements.

5.1 Building competitiveness in the the Kenya tree-fruit subsector.

The diagram below adapted from Michael Porter's The Competitive Advantage of Nations illustrates the interrelationships between multiple factors that are critical to building and maintaining competitiveness within the tree-fruit subsector in Kenya. As we have discussed above, sustained growth in MSE incomes in the tree-fruit subsector is linked to the growth, productivity and competitiveness of the whole subsector. Recognizing this the subsector-business services approach used in Activity 3 solicited broad based participation by multiple stakeholders in the subsector including MSE growers, medium scale growers, processors, brokers, exporters, and government representatives. From the questions listed in *Figure 1.1*, and the participatory workshop held at the end of Activity 3, it is clear that many but not all of the determinants of competitiveness are in place. Understanding strengths and weaknesses of the determinants of competitiveness clarify constraints and suggest services that will strengthen the subsector.

Figure 5.1 Building Competitiveness in the Kenya Tree Fruit Subsector



Firm Strategy, Structure and Rivalry There is very little coordination in the subsector among stakeholders in order to more effectively compete in the global marketplace both for exports and against imports particularly of juice concentrate and processed fruits. Stakeholders who participated in the Constraints-business service workshop overwhelmingly supported the initiative of Kenya BDS to bring key stakeholders together. This raises the question of whether it is an appropriate activity for Kenya BDS to bring together key stakeholders for the purpose of increasing coordination and collaboration within the subsector or at least to facilitate this activity with local Kenyan associations such as but not limited to F-Peak, or other association capable of representing the interests of this subsector. There are few barriers to entry however and there is considerable competition among participants in most functions in the subsector.

Demand. There is a growing sophisticated local demand as evidenced by the growth in the domestic juice market. Currently most of the mango and passion fruit juice in Kenya is packaged from imported concentrate. There is very little local processing of either mango, and avocado (some

seasonal extraction of oil occurs). Kenya also imports avocado oil for both baby food and the cosmetics industry. The sophistication of local demand is a driving force in the subsector because it creates opportunities for local firms and multiple firms in the subsector to compete with international producers. There is very little grading or differentiation of either mangoes, avocados, or passion fruit in the local market. There is an emerging segmentation in avocados with consumer preference favoring the Hass variety following the export preference. There has been no market development promoting the relative advantages and uses of the two varieties in the local market. Marketing, developing a Kenya brand identification and local consumer demand have not yet received much attention from participants in the subsector.

Related Support Sectors These factors represent both the biggest weaknesses and strengths in the tree-fruit subsector. Most participants felt that government regulations were not a constraint to improving growth and competitiveness of the subsector. Some participants did complain that the government was less efficient than private sector providers and should get out of the cold chain business. There has not been enough varietal research and it is not clear from the workshop whether there was adequate protection of intellectual property rights for Kenyan producers to be able to introduce new and premium varieties. The principal weakness among related support sectors arises from the poor organization of and coordination among tree-fruit stakeholders.

Factor conditions Kenya has an excellent climate for production, adequate availability of inputs, at reasonable cost. There are infrastructure problems due to poor secondary road access, but this was not considered a binding short-term constraint by participant stakeholders. An important created factor condition is the specialization of local products relative to its global competition. Participant stakeholders at the constraint-business service workshop were aware of the impact that developing and promoting a Kenya 'brand' or label could have in increasing demand for Kenyan products both domestically and abroad. Lack of coordination among stakeholders to function as a cluster in a coordinated manner is the biggest obstacle to developing this specialization.

The life of project challenge for the Kenya BDS project is to stimulate delivery of services that enable MSE's to contribute to and benefit from the increased competitiveness of the subsector as well as services that enhance the competitiveness of the whole subsector even if the direct client is not a MSE.

Figure 5.2 Increasing private sector delivery of services that assist rural households

One of the critical questions in the private sector BDS approach is why are private sector providers not delivering services if MSE demand for services exist. Understanding the answer to this question is important if the facilitating institution, in this case Kenya BDS, is to avoid market distortions and develop a sound exit strategy that ensures ongoing service delivery after the facilitation activity, of if the activity is not designed to continue that the benefits are not lost with the suspension of the service.

Figure 5.2 Barriers to BDS delivery

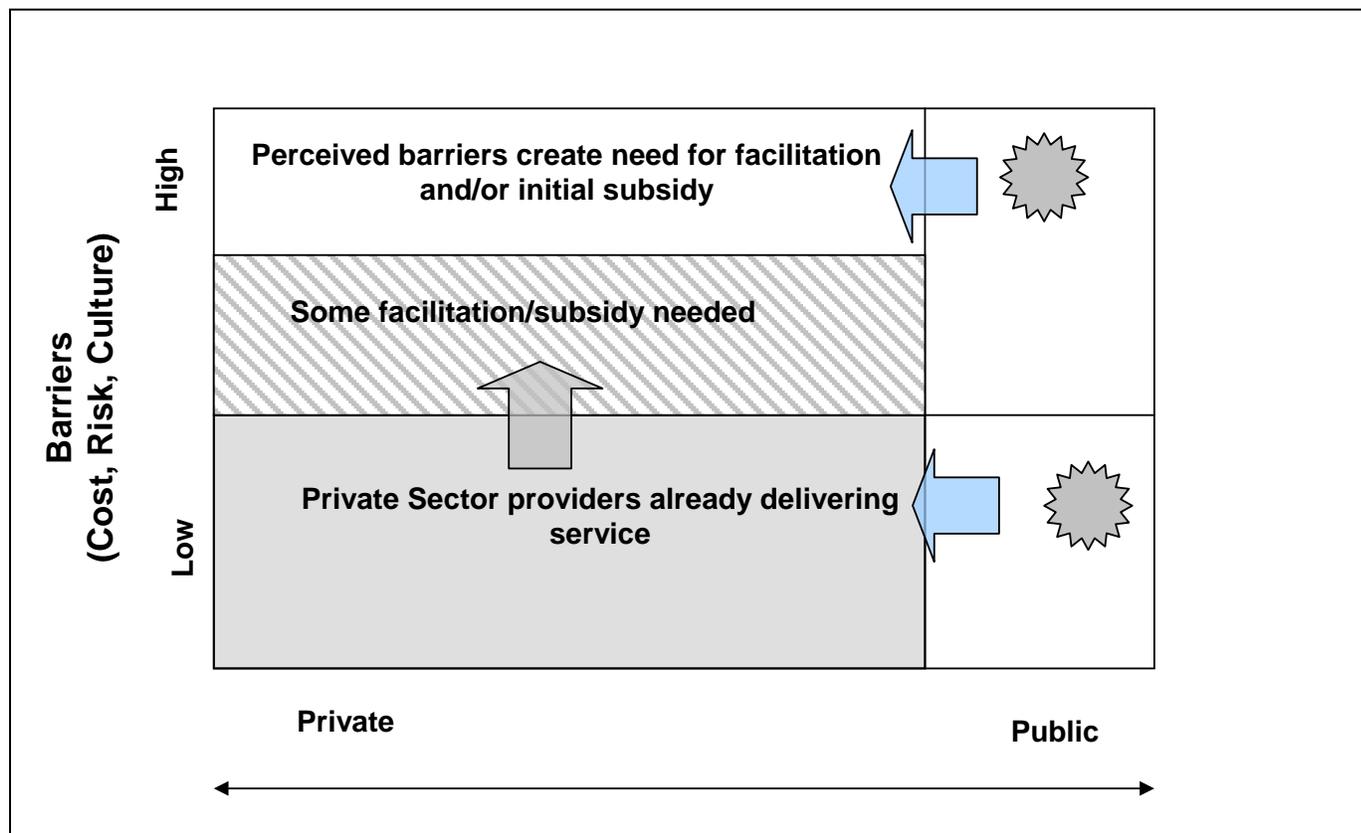


Figure 1.2 above illustrates conditions under which the private sector will offer business services that are key to improving MSE and subsector competitiveness. First the attribution of the services benefits must be private. In Zimbabwe before the current political crisis there was strong protection of intellectual property rights. In this environment the Pioneer Seed Company developed local tomato varieties adapted to small holder cultivation strategies (less capital more labor intensive production). Pioneer Seed was able to conduct this R&D and disseminate the results to MSE farmers because their intellectual property rights were protected and they could recover their R&D and extension costs through the sale of seed. If such property rights are not protected R&D cease to become an enforceable private good and local stakeholders will not invest developing new technologies. In Morocco, a donor partner operating as a benevolent broker helped an American developer of a higher quality strawberry recover royalties from local producers. This activity shifted a service from the public good quadrant on the right into the private good quadrant on the right. Improvements in the legal and regulatory environment protecting intellectual property was necessary to make this service a sustainable one after the end of the project.

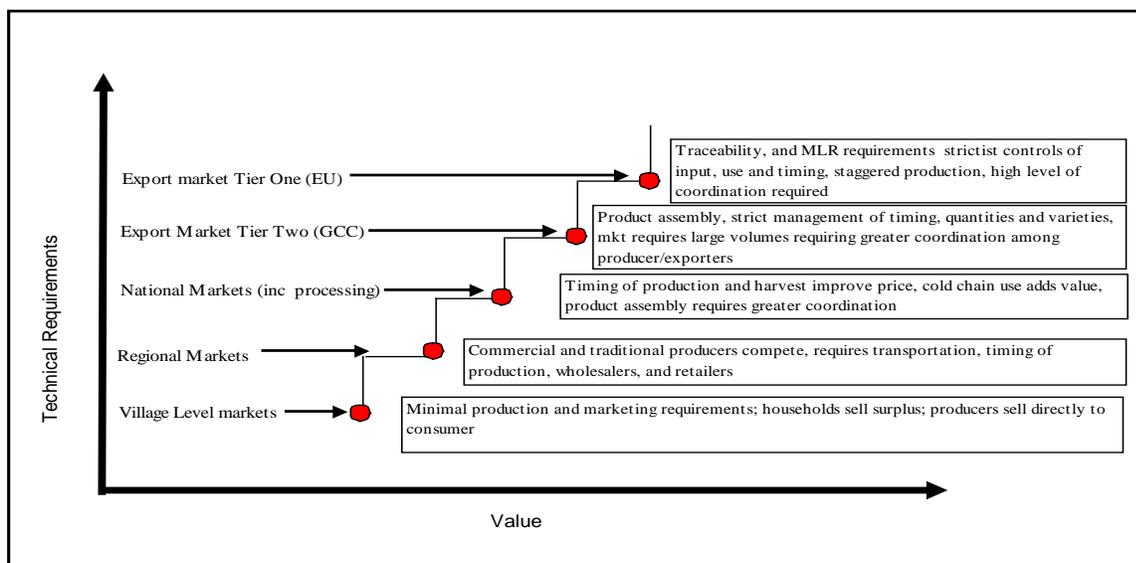
The difficulties in organizing successful outgrower schemes is an example from Kenya in both tree-fruits and vegetables and cut-flowers. Commercial growers and exporters recognize the potential value of working with large numbers outgrowers in order to increase their marketable production base. Kenyan producers and exporters have also had some catastrophic experiences in providing the services necessary to make outgrower schemes successful. These failures included poor control of quality, minimum residue levels (MRL), and quantity of product. The labor costs of organizing outgrowers, training them in production-post harvest techniques and controlling for quality and quantity controls was too high for many contracting firms. Most of the commercial tree-fruit

producers interviewed for Activities 2 & 3 cited some of these failures as reasons why they were unwilling to develop outgrower contracts by providing a range of embedded services to MSE producers. At the same time working with outgrowers enables commercial growers and exporters to deliver a larger quantity to markets than they can produce themselves and for much less up front capital investment. The private sector is not providing of a range of services key to building successful outgrower partnerships because the real and perceived costs and risks of service provision are too high. The challenge for Kenya BDS is to assist in the facilitation of services critical to building successful outgrower schemes. In addition to the intervention fund grants there is an enormous amount of information available from Kenya, other East African countries, and elsewhere on cost effective approaches to delivering business services that strengthen outgrower schemes. Success in this facilitation “lifts” the real and perceived barriers to service provision allowing private sector providers to expand the delivery of services they can provide without a continued subsidy. In the figure above, this lifting of barriers is illustrated by the shaded area. When barriers are lifted, the private sector will be able to expand services to MSE’s.

5.3 Matching services to client factor conditions

One of the challenges for Kenya BDS in designing appropriate services (Activities 5 and 6) will be to make sure that services match the factor conditions of the client. Client factor conditions include, education and business orientation of the enterprise operator, access to roads, extension, and financial support services, level of organization of MSE producers, and commitment to growth. Many failures in building outgrower schemes arises from a poor match between the requirements of the market that the outgrower is producing for, and his or her factor conditions to serve that market. Most MSE producers are willing and able to support the costs of services to sell their product(s) in a higher value market. Initially only a few have the necessary factor conditions to support the services that allow them to sell their produce into the highest value markets. A few, is relative in this context. With over 100,000 MSE producers of mangoes, avocados and passion fruit (Karuga 2002) even if 5% are able to sell at least part of their product into the highest value export markets, over 5,000 MSE’s will benefit. Debate and discussions about whether to build MSE and subsector capacity to serve export or domestic markets fail to recognize that the question is not which market to serve but which services enable producers to serve higher value markets. Figure 1.3 below provides an illustration.

Figure 5.3 Staircase diagram



The vertical (y) axis illustrates increasing technical requirements of different markets. These requirements are described vertically in the boxes on the right of the figure. The horizontal (x) axis illustrates marginal value. As MSE producers in the tree-fruit subsector develop those factor conditions within their control (moving up on the y axis), they gain the ability to compete a higher value market. This process continues as MSE firms continue to: acquire improved production-post harvest and management skills and collaborate more effectively with other MSE producers through production and marketing associations and groups. The BDS facilitation challenge is to make sure that facilitation subsidies do not encourage service providers to extend services to enterprises whose factor conditions prevent them from capturing the value of the service provided. The staircase diagram also suggests that the most effective strategy to build the competitiveness of the subsector is to tailor and target services based on MSE factor conditions.

To some extent brokers interviewed during Activity 2 and 3 are already doing this. Many fruit growers use virtually no inputs and do not operate their enterprise as a business. Essentially they possess fruit trees and when possible they sell fruit from those trees. With these MSE's brokers or broker agents visit the household and pick the fruit themselves separating it by quality and offering a price to the grower. Brokers also buy from more organized growers who pick and in some instances do their own pre-grading. Both growers, processors, and exporters indicated a willingness to pay more for higher quality graded product that meets market requirements and standards. This suggests demand for a range of services to enhance the competitiveness of the subsector tailored for and targeted to MSE's based on their factor conditions.

Annex 1
Consultant Scope of Work

Kenya Business Development Services Program (KENYA BDS)
Scope of Work – Activity 2 and 3

Proposed Personnel: Olaf Kula, ACDI/VOCA

Assignment: Sub-Sector Analysis to Identify Constraints to Growth and Service Gaps

Background and Objective:

KENYA BDS is a microenterprise development program that combines the subsector approach with business development services market development. Over the five-year period, the program will work in product markets of high growth potential, and identify market inefficiencies along the supply chain. As critical constraints are identified, the program will facilitate the delivery of appropriate business development services on a commercial basis. This approach will be replicated in 2-3 sub-sectors over the life of project.

Activity 1, “Sub-sector Selection” followed a methodical approach which balanced the objectives of Kenya BDS with specific criteria for increasing rural household incomes. This past January 2003, the sub-sector selection team arrived at fruits as the initial area for support. In accordance with the Kenya BDS workplan, an in-depth analysis is now required of the fruits sub-sector to understand the market dynamics and critical relationships between actors within the supply chain, as well as the relevant constraints to growth for rural microenterprise.

Beginning 3 February, the Kenya BDS Team will initiate Activities 2 and 3, which will focus on: 1) sub-sector analysis in the first sub-sector using qualitative and quantitative tools; and 2) identification of supply-chain constraints and mapping of corresponding business services. The activity will reflect a largely (rural based) participatory approach, in which information will be extracted from key informants and sub-sector representatives through focus group discussions, market questionnaires, direct field interviews, and possibly vetting workshops.

Tasks:

Mr. Kula will work with a team of 2 local consultants to conduct the sub-sector analysis and constraints identification. The specific tasks will be to:

1. *Develop and finalize tools and questionnaires for subsector assessment.* Consultant will assist in the development of the sub-sector research methodology for Kenya BDS, including the development of appropriate analysis tools prior to field research.
2. *Refine blue-print subsector map.* Consultant will build upon the initial overview and analysis conducted during Activity 1, and identify principal actors in the supply chain to target during field assessment.
3. *Conduct sub-sector analysis.* Building upon tasks 1 and 2 above, consultant will participate as part of a sub-sector analysis team, and conduct field research using a combination of qualitative and quantitative tools (data review, questionnaires, field interviews, FGD's).
4. *Identify supply-chain constraints and map corresponding business services.* As the sub-sector analysis is taking place, the sub-sector team will concurrently detail supply-chain constraints, and identify relevant business services to overcome the constraints. Existing providers of services will also be identified in detail.

Outputs and Deliverables:

Payment will be based upon the satisfactory completion of deliverables as defined below. It is expected that Mr. Kula in coordination with local short-term consultants be responsible for the following:

1. *Trip Notes*, which capture the information and insight gathered from all meetings, focus group discussions, and workshops attended in relation to this Scope of Work.
2. *Sub-sector Analysis/Constraints Identification Report*, which will detail at a minimum: 1) in-depth sub-sector analysis; 2) identification of constraints and opportunities; and 3) identification of business development services to address the market inefficiencies. The analysis will include a discussion of key competitiveness factors facing the sub-sector. The report will also detail a short-list of priority constraints and corresponding business services using an attractiveness matrix, and will conclude with the identification of at least 3-5 initial business services to target for the subsector.

The report will be comprehensive, and include an overview of the sub-sector methodology, market research tools, as well as contact information and profile of all market actors/stakeholders interviewed for purposes of the assessment.

3. *Oral presentation to USAID on findings*, on or around 26 February.

Timing:

3-7 February	Nairobi based team meet to design research methodology, and develop tools and questionnaires for subsector assessment. Team refines blueprint subsector map, and identifies critical actors/stakeholders to target in advance of field research.
7-17	Team conducts field research in support of subsector analysis and constraints identification. Mr. Kula arrives February 11 th to join field team
17-21 February	Data gathering and fieldwork complete by 18 th . Team meets in Nairobi to synthesize data. 1-2 vetting workshops conducted with local stakeholders to discuss findings and validate constraints and business services.
24-27 February	Mr. Kula, Mr. Getambu, and Ms. Kapila prepare Sub-sector Analysis/Constraints Identification Report. Joint presentation is given to USAID on or around 2/26.
27 February	Mr. Kula returns to U.S.
3 March	Report due

Additional input will be provided by Muli Musinga, Henry Van Der Land, and David Knopp. Mr. Kula, Mr. Getambu, and Ms. Kapila will be responsible for the development and completion of deliverables as defined above.

Proposed Level of Effort:

The duration for the assignment will be from 3 February – 3 March. The proposed Level of Effort for this consultancy will not exceed 20 days, broken down as follows:

- 1 days Virtual design/preparation prior to mobilization

- 15 Data gathering in the field; Preparation and participation in vetting workshops;
 Synthesis of data with team and preparation/delivery of oral presentation.

- 4 days Drafting of sub-sector analysis/constraints identification report

Proposed Daily Rate:

As specified in subcontract for Mr. Kula.

Approved by: _____
 David Knopp, Chief of Party, Kenya BDS Program

Date signed: _____

Agreed to by: _____
 Olaf Kula

Date signed: _____

Annex 2
Field Notes

FIELD NOTES

Date: 6th Feb. 2003
Organization: Fresh Produce Exporters Association of Kenya (F-PEAK)
Respondent: Cosmas Ngengo
Location: Nairobi

1. Background

F-PEAK is a Trade Association whose membership comprises of Exporters of horticultural produce. It is managed by an elected board of directors with a secretariat which is responsible for day to day running of the organization. Funding is mainly through membership fee and subscriptions.

The membership of the organization comprises of: i) Ordinary members (farmers and exporters) and ii) Affiliate members (input suppliers)

2. Functions

- i) Marketing and information dissemination: F-Peak conducts research on international market trends and shares this information with members. It also makes contacts with international markets and then relays the information to members. The information will include aspects such as:
 - Addresses and contacts of international customers
 - Monthly updates on state of the sector
 - Production of a quarterly magazine
 - Directory of all exporters
 - International Horticultural Journals (F-PEAK has subscribed to many Journals)
 - Affiliation with other international horticultural bodies
 - Organizing horticultural trade fairs.
- ii) Lobbying: Lobbying on behalf of members is one of the most important functions of FPEAK. Recent lobbying activities have focused on issues such as:
 - High airfreight costs due to high costs of using Kenyan airports as compared to competing countries.
 - Policy to reduce direct government involvement in the sub-sector and allow the sector to self-regulate. FPEAK played a key role in drafting the horticultural act due for debate in parliament soon.
- iii) Technical Support to members: FPEAK provides technical support to members in areas of:
 - Market research in export markets
 - Extension services in crop husbandry
 - Workshops to up-date members on new technical developments in the sector
 - Development of a Code of Conduct for players in the sector.

2. Comments on the Sub-sector

FPEAK highlighted the following issues regarding the sub-sector:

- Gross margins in passion are highest compared to mango and avocado
- Passion fruits takes a shorter period to grow and therefore return on investment is faster.
- Mangoes business should focus on local markets.
- There is a large ecological zone suitable for growing Mangoes
- There is an unmet market demand for these fruits in the export market.
- Mangoes, passion and avocado are grown by medium and small scale growers.
- Highest market demand for avocado
- Avocado are less prone to diseases

3. Constraints in the subsector

- Potential danger of losing EU market due to expensive minimum residue level (MRL) requirements by the EU Market.
- The fruits are very susceptible to soil born diseases.
- Low production outputs to support local processing.
- Seasonal fluctuations in production affecting pricing and loss of produce.
- Farmers lack adequate knowledge and skills in crop husbandry.
- Poor road and communications infrastructure in fruit growing areas.
- High cost of production inputs, i.e. land value, energy, chemicals and fertilizers.
- Lack business skills to know when making profits or losses.
- High airfreight and handling charges compared to competing countries.
- Many levies reducing return to farmers and exporters

Date: 13th Feb. 2003
Organization: Karurumo Mango Farmers,
Respondent(s): 30 Mango Farmers
Location: Karurumo Sub-Location, Embu District,

1. Background

Karurumo Mango farmers are small scale farmers with the number of trees ranging from 20 to slightly over 1000. There is one medium scale farmer (Karanja-diseased) with more than 3000 trees. More than eight different varieties of Mangoes are grown by these farmers with Kent being the most popular variety. Most of the mango trees were ten and more years old. Brokers are the main market outlets with a big percentage of mangoes being sold locally. Most of the farmers agreed that the business was viable if the major constraints were addressed.

2. Focus Group Discussions

During the field visit, a focus group discussion was held with 30 farmers to identify constraints faced by the farmers. The major constraints mentioned were:

- High cost of pesticides, chemicals and fertilizers
- Spray pumps not readily available
- Markets not available at the right time
- Exploitation by brokers
- Buyers are not available when crop is ready
- Area is inaccessible during wet seasons
- Low quality fruits due to lack of spraying and basic crop husbandry.
- No information at all about the market for mangoes outside the local area.
- Lack of irrigation facilities

3. Recommendation/Services to Address

- Formation of a farmers association to benefit from bulk purchasing of expensive inputs.
- Limited crop husbandry skills to take good care of the fruits
- Establishment of farmer field committees to supervise spraying and pest control is carried out by all the farmers to improve general quality of the mangoes.
- Provision of market information to allow some bargaining power for better prices
- Organize marketing organization to reduce exploitation by brokers
- Establish linkages with exporters for better prices.
- Lack of affordable sources of credit

Date: 14th Feb. 2003
Organization: Kirigi Wendani Horticultural Self Help Group
Respondent: Eliod Muriithi, Chairman
Location: Manyata Location, Embu District

1. Background

The Kirigi Wendani Horticultural Self Help group is a farmers association comprising of 20 farmers of passion fruit. It is expected to grow to a membership of 100 before the end of this year. The group was formed in 2000 to cater for marketing of the passion fruit. So far the group has firm orders from Uchumi Supermarkets to provide 800 kgs of fruit per week but the farmers can only provide 300 kgs.

Passion trees start producing after 8 months but reaches peak production after 18 months. One can plant 2000 trees per hectare. When mature, one tree can produce 60 kgs of fruit during the two peak seasons. The low season in passion never reaches zero production unlike many other fruits. The farmer is therefore guaranteed of some income all year round. During this study, it was confirmed that the farmers are generating adequate incomes from the crop. Preliminary calculations show that a farmer growing 1000 trees of passion on a half a hectare, is able to generate sales of approximately Ksh.1.8 million (1000 trees x 60 Kg./tree x Ksh.30 per Kg.). The approximate cost is Ksh.100,000 (Ksh.100 per tree x 1000 trees) for a net income in excess of Ksh.1.7 million each year.

The ministry of agriculture is providing some technical advice to passion fruit farmers in this region. Muriithi, the chairman of the group is also a trained agricultural extension worker and has been instrumental in training the members to maintain quality and productivity of passion fruits within the group.

2. Constraints/opportunities Facing the Passion Fruit Farmer

- High cost of pesticides, chemicals and fertilizers/manure
- Lack of water for irrigation
- Few commercial nurseries for grafted seedlings leading to high costs of seedlings
- Limited crop husbandry skills for many the farmers
- High initial costs of land preparation, i.e. labour, wires and poles.
- Low prices in the local market.
- Lack of credit
- Lack of affordable sources of credit.

4. Recommendation/Services to Address

- Strengthening and increasing membership of the existing farmers' self help group.
- Provision of crop husbandry skills
- Establishment of nurseries to reduce cost of seedlings.
- Provision of affordable credit to small scale growers
- Provision of affordable irrigation facilities.

Date: 7th Feb. 2003
Organization: K.A.R.I. Thika - National Horticultural Research Centre.
Respondent(s): Charity- (food specialist) and Faith- (Deputy Director)
Location: Thika

1. Background

The National Horticultural Research Centre in Thika was started in 1957 focusing mainly on sisal. In 1989 the centre was taken over by the Kenya Agricultural Research Institute and started conducting research on pineapples. Soon after it was given the national mandate to research on macadamia, avocado and citrus.

2. Current Activities (General)

- i) **Conducting Research:**
At present KARI Thika is responsible for conducting research on all aspects of horticultural development in Kenya including breeding, crop management, crop protection, post-harvest, value addition and social economic aspects of horticulture.
- ii) **Dissemination of Research Findings:**
In the last five years, the centre has shifted its focus towards dissemination of research findings to farmers and other stakeholders. At present the centre is working with farmers in Eastern and Central Provinces to put research results and benefits in the hands of farmers through extension services.
- iii) **Linkages with Research Organizations and Key Players in the Horticultural Sector.** KARI maintains working relations with other horticultural research organization including universities, the International Centre of Insect Physiology and Ecology (ICIPE.), Internation Centre for Research in Agroforestry (ICRAF.), Kenya Plant Health Inspectorate Services (KEPHIS), etc..

3. KARI Activities Specific to Mangoes, Avocado and Passion Fruits

a) Mangoes

KARI Thika introduced a wide varieties of mangoes and is currently involved in evaluating those varieties. It has established nurseries for propagation and continues to research and evaluate the performance of different varieties of mangoes. It remains the main centre for developing propagation for mangoes, i.e. maintaining the root stocks and grafting scion of the preferred varieties. It has a commercial nursery for different varieties of mangoes and is currently conducting mango specific research on alternate bearing and Integrated Crop and Pest Management in line with EU's request on Minimum Residue Levels (MRLs) with the view to introducing alternatives which are environmentally friendly.

b) Avocados

Most of the avocados are grown by small scale farmers in Central and Rift Valley Provinces. There are two main varieties of avocados; the Fuerte and the Haas. The export demand for the Fuerte variety has been declining within the last 10 years. During the same period, the demand for the Hass variety has been rising although the prices are still low. The local market has started to improve for both varieties with good prospects for processing. Some farmers in Kandara area of Thika have started to extract oil from avocados. There is only one avocado processor in the country.

The team visited the factory but found it closed. The team was informed that the factory operates for three months are due to shortage of avocados.

c. Passion

According to KARI Thika, the production of passion fruit has gone down due to root rot disease. Most farmers stopped growing the fruit as a result of the disease. The major challenge is to come out with a variety which is resistant to the disease. Towards this end, KARI has started grafting the purple passion using yellow passion root-stock which is more resistant to the disease. KARI also believes that the fruit has high market potential for both local and export markets. As a result, production of passion by small growers has picked up.

Constraints/opportunities

- Expensive to control pests and diseases
- Limited knowledge on crop husbandry by small scale farmers
- Lack of reliable market for small-scale farmers
- Expensive seedlings
- High incidences of a fungal disease known as “phythora” which causes the roots to rot. KARI is carrying out research to develop root-stocks which are resistant to the root rot.
- Low demand of avocados in the local market
- Higher demand than supply of avocados for processing.

Services to Address the Constraints

- Provide knowledge and skills on crop management to small scale growers
- Provide linkages between growers and fruit market
- Provision of disease resistant root-stocks for avocados to farmers.
- Encourage more farmers to grow avocados to meet the demand for processing.

Function : Regulatory body and marketing facilitator
Organization : Horticultural Crops Development Authority (HCDA)
Person Interviewed : Mr. Ouko , Chief Executive
Location : Nairobi.

HCDA was created in 1967 under the Agriculture Act to develop small scale horticultural farming. It opened up new areas and HCDA also supported the marketing of the farmers. HCDA has an extension network (but because of lack of funds , does not extend very far) and it continues to act as a facilitator –costs are partially recovered through a levy on crops that are exported. But it is a free service for the farmers. Regional offices are in Kisumu, Kitale, Eldoret, Taita and Taveta. There are depots or export satellite centers in Limuru, Sagana (see interview account below) , Mweya, Yatta, Machakos, Kibwezi and Nairobi. The Nairobi depot can store upto to 100 tonnes of produce.

Passion has a 4-5 year cycle but can start producing within three months. Unfortunately, passion is prone to fungal disease that are also soil borne so where there has been disease, the land cannot get used again for the passion. This makes it difficult for small holders. Clean planting material is also vital. That is why HCDA is responsible for registering, guiding and training nursery staff. Kenya Plant Health Inspection Service certifies the plant material that is eligible for sale. The knowledge about the certified material is made available through barazas and agricultural shows.

Constraints to and potential for growth in production and incomes

The real constraint is the post-harvest handling ; it is very poor. There is need to develop pulping facilities closes to the farms and thus reduce waste, weight and transport costs. Also, consumer appreciation for fruit consumption needs to be actively developed.

The overall production of fruit reduced by 22 percent from 22,000 tonnes in 2001 to 18,000 tonnes in 2002. The value in K.Shs however went up by 4% . These are estimates that need to be cross-checked by HCDA.

Avocadoes are very popular in Europe and the variety that is preferred is Hass. The only avocado processing factory Dagama Ltd. opens during the peak season April onwards and exports avocado oil in an unrefined state to South Africa or Europe to be further refined.

There is only a small consumer market in Kenya so increased quantity means more exports and processing. For the latter to be lucrative, a certain minimal quantity is required . Cottage industries around mango and passion which grow in fairly remote areas could decrease waste of fruit and increase incomes.

Organization : HCDA Depot
Person met : Mr. Makau , Manager
Location : Sagana

HCDA satellite center services

Coolers can be hired by exporters or farmers; the utilization rate has been about 10 percent over the year of existence. Charges per kilo per day are Shs. 1.45 per kilo. Transportation: there are two vehicles for hire by farmers or exporters but no-one has hired them so far. HCDA also registers nurseries at the fee of Shs 3000 per nursery . At a divisional level, HCDA meets with agro-chemical companies and is able to negotiate discounted prices for groups of farmers, up to 17 percent discount.

Marketing and inputs

HCDA contracts farmers to grow the crops which might be in high demand such as French beans or peas. It has not yet done so with fruit. For fruit orders, HCDA would simply arrange for collection from an existing farmer. For example, there is an order by exporters for 500 kilos of purple passion for which HCDA would contact a medium scale farmer who has about 600 plants in an acre of land. Often a whole village might grow passion fruit. Fruit exporters do not tend to give long standing contracts such as the ones for vegetables. The fruit market is not reliable; sometimes even when they fruit has been contracted for, sometimes the exporter does not take them. Similarly, farmers may not produce what they were contracted for. These contracts are not binding. There are no organized markets or any guarantees of sales; when an exporter sends inspectors to the farmers he/HCDA has contracted on an exporter's behalf, the inspectors might reject the entire crop.

Fruit farms are small in the Sagana region; no-one takes them seriously. There is no information on who the best buyers might be – people learn from word of mouth. This used to be a coffee growing area , but because of the problems with coffee marketing, people are turning to other things such as passion and mangoes. The main source of plant material is the prisons where GTZ had a project developing nurseries and orchards. The prison staff however sell the plant material as they wish or use themselves. There is no quality control.

There are hardly any extension services. Ten years ago, the Ministry of Agriculture had officers on motor bikes or bicycles ; now they have to walk.

HCDA gives inputs such as fertilizer and a spraying program only to the contracted farmers. When the inputs are bought from wholesale merchants, they are cheaper and so to some extent subsidized for the farmer. The exporters are also charged for transport when the produce is delivered to them.

Function : Export

Name of Company : Sunripe.

Persons Met: Mr. Alan Simiyo, Logistics Manager, Barney Gasston, Production Manager

Location : Nairobi.

Avocado, Passion Fruit and Mango Supply and Export Processes

Sunripe gets its avocados through brokers who collect them from several smallholdings. The avocado season is February to September. During that season, 3 collection points are set up in three collection areas. Three brokers take care of the centers and collect from farmers using a 7-10 ton lorry. Each farmer has a code to ensure traceability. Records of date of harvest, weight of consignment etc.. are tagged to the crates delivered to Sunripe. At Sunripe, the avocados are graded and packed. A grading machine grades them according to size and 7,000 to 12,000 cartons are exported per year. The rejects are either returned to the broker or sold to Dagama avocado oil processors.

The most demand is from France, Holland, Germany and England. Avocados are exported by air (in off peak season)and sea (in peak season) . By sea, it takes 5-7 days to the Middle East and 14 days to Europe. The containers store than at 5 degrees centigrade. They go by road to Mombasa where agents such as Maersk, Transami and Tri-East Africa handle the shipping.

Passion fruit is transported by air in pre-packs of two kilos each or a box of about 50 pieces. The importers are Holland, France and Germany. The main competition is from Zimbabwe who offer more quantity and better quality and price. Contracted farmers in Subukia produce these and through brokers, pack them in cartons supplied by Sunripe. Sunripe extension staff check on the pesticide application regimes. Two thirds of the passion fruit exported by Sunripe is grown at a farm in Nakuru whose crop is supervised by Sunripe field staff. The main competition is Zimbabwe where the fruit is grown on plantations which until quite recently were quite active and lucrative. The main importers are Netherlands, England, Germany and France. The market shapes the supply .

Constraints

The main problem with avocados is the planting material. The farmers tend to get seeds from their own farms but these might not be the best. There is a new association called the Avocado Association that has just been formed to bring together avocado exporters to negotiate better freight rates and lobby for policy changes re. duties and levies etc.. There is much room for improvement in both quality and quantity; the small holders are not successful at either.

Function: Trade / Brokering

Name of Company: Fresh Link Growers

Person Interviewed : Mr. Kigotho, Broker for Exporters and BDS service provider

Location :Karatina

Mr. Kigotho is a farmer and packer for exporters- buying fruit from farmers, packing it according to exporter specification and then delivering it to farmers. He is also a service provider for the farmers . He has joined up with a number of partners to co-ordinate small scale production on behalf of Sunripe for french beans, snow peas, garden peas, and passion fruit. Mr. Kigotho's team sells the farmers the seed bought from certified seed merchants such as Regina Seeds and also offers the farmers credit to buy the seeds and other inputs. For passion fruit, Mr. Kigotho runs a nursery from which he sells the small plants to interested farmers.

Large scale production of avocados, passion fruit and mangoes

Name of Company : Kakuzi Ltd

Person Met : Mr. J. Hulme, Managing Director.

Location : Thika

Kakuzi was set up in 1927 mainly for sisal production. It is one of the very few companies that is listed on both the Nairobi and London stock Exchange. After the failure of sisal in the sixties, coffee and tea was grown and then gradually, a variety of fruit. In the 1990s, Kakuzi entered into a joint venture with Delmonte to grow pineapples which Delmonte markets and processes.

In 1996, 170 hectares at Kakuzi were under avocado. In 1999, this had decreased to 25 hectares, due to competition for the European market from other countries. The avocados are marketed directly to a buyer in Marseilles in France. Avocados are now grown on a total of 50 hectares. The main competitors of the Kenyan avocado are Mexico and Guatemala, but Kenya is very well suited to the avocado and with irrigation and fertilizer can get high yields. South Africa has higher production than Kenya currently.

Until recently, Kakuzi was the largest producer of passion fruit. It has cut down its acreage of passion since a loss of K Shs. 17 million due to bad prices last season. Internationally, Kenya cannot compete with other purple passion producers like Zimbabwe, Ecuador and South Africa. Since passion is quite disease prone, and markets are not attractive, Kakuzi now only has a small area under passion. Mr. Hulme said that "passion is a high cost product" which occupies "microscopic shelf space" in Europe.

Mangoes are a low cost product but have the problem of the mango weevil. If flowering takes place during a wet period, there is the danger of fungal disease called "Botritis". But with right management, yields can increase.

Kakuzi also grows tangerines which are sold locally. In the 1980s, the company experimented with a variety of fruits and tangerines were found to do well.

EU Standards

From 1st Jan. 2004, Good Agricultural Practice (GAP) standards will be enforced for all EU imports—these are unrealistic for smallholder implementation. Increasingly, the exporter will rely on outgrower schemes which he/she can control – this is already happening to some extent with exporters like KHE (Kenya Horticultural Exporters) and Sunripe. The smallholder are likely to get shut out as they will not be able to ensure fruit or vegetables they grow are GAP compliant. There are also likely to be intermediary packing companies likely to be set up closer to the farms which will monitor production.

TECHNOLOGY AND TRANSPORT

Most of the technology used in Kakuzi plantations is South African since even Danish imported machinery in South Africa such as tractor sprays sells for 200,000 shillings cheaper than in Kenya. The manufacturing and transport industry in Kenya is also suffering from heavy electricity and fuel costs. Whatever would cost 4,500 USD from South Africa costs

7500 USD from Kenya by sea freight which makes South African competition problematic for Kenya. Also while their products can reach Marseilles in 10-12 days, Kenya requires a minimum of 14 days.

Mango production and export overview

Person Interviewed : Mr. Chandran, Mango Farmer

Location : Nairobi.

Mr. Chandran gave an overview of the mango sub-sector: about 4.500 tonnes are exported to the Middle East per year, mostly from the Tana River. The months of most demand are when it is winter in India, from October to February. The main competitor for exports to Europe is Brazil which grows mangoes –Apple, Tommy Atkins and Kent-on large scale plantations. In Kenya , because of the land policy, most landholdings fall within the 5-10 acre range. Perhaps a network system whereby farmers can join hands is the way to get the quantities that lucrative and sustained export requires.

Another competitor for both the European and Saudi markets is South Africa. It has the advantage in terms of distance to Europe as most sea freight goes around the Cape – also its trade with Europe is more active than Kenya's and the reefers can come and go full both ways. Hybrid mangoes such as the popular export varieties were only introduced to Kenya about 10 years ago. Mangoes were originally introduced to Kenya through the slave trade routes by Arabs who discarded the eaten mango kernels as they traveled through the interior and along the coast. The indigenous variety, Ngowe, is actually the variety introduced by the Arabs and is more fibrous than the hybrid varieties introduced from India and the United States. They have a good shelf life and can be transported by sea. They are more resistant to fungal disease and are not very sweet.

Although mango is quite a hardy crop, it is susceptible to fungus and fungicides can be expensive to buy, up to 2000 Shillings. The sprays used are high pressure sprays and should be applied with protective gear- also expensive to purchase. Other diseases are the

There are plans among the mango growers to form a loose association around Machakos and Embu farmers to ensure that at least 100,000 trees' produce can be " bulked " for export. There is the possibility of a limited liability export company being formed for organizing both the production and export from the small holders. In collaboration with the Avocado Exporters Association, the freight charges might also be reduced if the two fruits could be exported together.

Small Scale Production and Marketing

Avocadoes

Focus Group Discussion : Avocado Farmers Focus Group

Location : Kandara

The farmers practise mixed farming with avocado and macadamia interspersed with subsistence crops such as maize. The average number of avocado trees that any farmer has is 10, but some have as many as 100. These are but most farmers are now grafting these with Hass and within a year, the grafted trees will be producing fruit. When avocados first started being exported in the 1980s, they were called green gold.

In the 1980s, the exporter Greenfields would come directly to the the frmers in order to pick up the fruit. Avocados as an export crop started in 1982; the fruit was then bought at Shs. 1 a piece. Today it is the broker who comes and buys still at Shs. 1 a piece. This state of affairs is attributed largely due to government failure –corruption and the lack of price controls. HCDA is seen as colluding with the exporters and brokers instead of assisting the producer. HCDA used to control the prices but not any longer, according to the Kandara farmers. These farmers sent a letter in 1997-8 to the Ministry of Agriculture to say that unless government steps in, the small scale farmers' role in the avocado sub-sector was doomed. They did not receive a reply. Since 1984, when the black spot disease hit the Kandara avocadoes, there has been a steady decline in production.

INPUT CONSTRAINTS

Asked about pesticides to combat this disease, the farmers said that the height of the trees makes tall sprays desirable but find them too expensive. They also do not know where and what to buy exactly either in terms of technology or the pesticides. The Ministry of Agriculture pesticide is also seen as very expensive. There is also a belief that the disease since it is fungal, is wind borne and spraying will not really eradicate the problem. Inputs are seen as too expensive compared to the effect they are likely to have on the production since the disease is very widespread. As a result, many trees are being felled and the wood sold as firewood. The land is then cleared for subsistence crops such as bananas or maize. Some trees are being grafted with the Hass variety of avocado.

PRICES

According to this group of farmers, avocadoes from this area used to be sold at almost Shs 500 a kilo to the exporter at the heyday of export in 1980s; they are now fetching Shs 20 a kilo through the broker. There is low demand, according to this group. There is a belief that if the exporter bought directly from the farmers, the prices would be better. The farmers maintained that the brokers don't really know about the international prices or what drives the exporters; it is the government who should be setting price controls which even the broker has to adhere to. Brokers don't know which avocadoes to pick so when the exporter gets immature avocadoes, the market is ruined for the farmer whose produce it was. Many brokers are women.

PROCESSING

The only avocado oil processor in Kenya is Dagama Ltd.. which according to this focus group, pays as low as Shs 2 a kilo for the reject avocados. The farmers would like to be able to have processing equipment in the vicinity; they had even tried to register a business to do this but the licence was not granted. There is access to electricity, water, roads and telephones so the location could be lucrative.

R and D

In the 1980s, inspectors used to come to the farms from HCDA or KARI and advise on how to do better . Agronomists could train the farmers on how to spot pathology but as soon as corruption set into the government institutions, even airport inspectors could be bribed to certify uncertifiable fruit.

ASSOCIATION

The group does have an association called Kawendo Welfare Group and felt that it should do more than assist members for weddings and funerals. But the association is not officially registered nor is it very clear on what it wants to do.

Mangoes

Focus group : Mango Farmers

Location : Maragwa Ridge

About 30 farmers came together for this meeting , half of them were women but the discussion was dominated by men. Their farms have a variety of fruits such as pawpaw, oranges, passion and bananas with some farmers growing vegetables and keeping dairy cows as well. There are also a variety of mangoes grown, such as Van Dyke, Haden, Tommy Atkins, Kent, Ngowe, Apple and Sensation grown on any one farm. The number of mango trees on any one farm ranged from 30 to 180, with most farmers' holdings falling in the 50-70 range. In total, the number of plots this group owned were 280 and the number of mango trees were 1,200.

MARKETS AND PRICES

Most of the farmers sell to brokers for the export market and to local markets in towns like Thika, Nyeri and Nairobi. The main export buyer is East African Growers (EAG) which buys through brokers. Brokers tend however to go to farmers within easier reach; the farmers we met are quite a way in from the main roads. The farmers said they did try to negotiate to sell directly to EAG but it did not work. They send their own lorry once or twice a week sometimes ; otherwise it is the brokers who deliver to the exporter. Marketing is seen as the biggest constraint. A nearby buying center with fair prices would be the best thing in these farmers' opinion.

Each mango is sold to the broker for 3-5 shillings; the exporter according to the farmers, might buy the same mango for up to 12 shillings a piece. A carton might be sold to the broker at 60-80 shillings but he in turn might get 120 shillings per carton at high season. If each farmer can sell even 50 cartons , it is still considered profitable. The farmers could not say how much profit they made since they keep no records .

PROCESSING

Although several of the farmers there have been trained in processing, they have not implemented what they learnt because they believe that the quantity of mangoes left after sales is not adequate for processing.

INPUTS

The farmers felt that what they needed first was education so that the importance of pesticides and water pumps could be appreciated. The price of pesticides was seen as prohibitive and the several farmers did not have water pumps.

PASSION FRUIT

NAME OF COMPANY : NYANAKA FARM

PERSON MET : MR. KIMANI, FARM MANAGER

LOCATION:THIKA

Nyanaka Farm is a smallholding , one of several owned by a farmer businessman who resides in nearby Ruiru. Mr. Kimani is the farm manager and was busy pruning trees in the fruit orchard. Mr. Kimani was educated after school at the Limuru Agricultural College from where he graduated in 1992. The orchard has mangoes (variety:Tommy Atkins) , pawpaws and purple passion fruit. All appear to be robust and have a ready market in Nairobi the retail sector. Mr.Kimani said that the mangoes require minimal attention and management but the passion fruit which he has been growing now for 2 years, has been problematic. After the first harvest, pests attacked the crop and stunted the second harvest. Pesticides have now controlled the problem . Mr. Kimani said instructions on which pesticides to use and how much are usually obtained from the agro-chemical shops and the manufacturers of the products.

The seeds for the passion fruit were obtained initially from the Kenya Agricultural Research Institute (KARI), Thika campus and Kakuzi Ltd. Previously the largest growers of passion fruit. The seedlings can be obtained already grafted, or ready to graft with root stock and graft material. Passion fruit likes water and if it relies only on rain, one might get two harvests a year but with irrigation, the passion fruit plant can yield fruit all year around. Mr.Kimani said there is enough demand all year round. The orchard has 50 passion plants and these can yield 2-3 bags of fruit per week during the peak season in December and January. Each kilo is sold for between 35-40 K.shs, thus fully recovering the costs of production. The orchard uses irrigation to ensure year around fertility .

Function : Processing

Name of the Company : Kenya Orchards Ltd.

Person Met: Mr. Vaidya, Chief Executive

Location : Nairobi.

Kenya produces about 300000 tonnes of mango and 1000 of purple passion any one season. If there are two good harvests per year , as there often are, then the quantity is double that. This is still not enough to produce fruit concentrates when one subtracts the amounts for export and local fresh fruit markets. Concentrates are imported from South African , Thailand and South Africa. They are re-exported from Rotterdam and are in short supply the world over. In Kenya , Bawazir in Momabasa makes mango concentrates and Passina processes about 3000 tonnes of passion annually to make passion concentrates..

CONSTRAINTS

Prices that are given to the broker or farmers from which processors buy their fruit are set by the export markets. The added value of processing depends on the world market for its prices .The farmer produces the fruit with the export market in mind and what is converted into the

processed good is that which is not taken by the exporter. Of a 1000 kilos of fruit produces, only 100 will make it to the export market, 900 are absorbed in the local market: 500 will be processed and about 300-400 sold as fresh fruit. For all these, the farmer expects export prices. This is unreasonable because the processor wants to get produce at much cheaper rates in order to be competitive. KOL gets its fruit through 10-15 brokers.

The major input into the processed fruit is sugar and that too is very expensive in Kenya. Up to 60 percent of what is prepared as juice and fruit squashes in Kenya is sugar.

POSSIBLE SOLUTIONS

The attitude of the farmer needs to improve dramatically in order to improve productivity. They need to be organized in groups with proper seeds, and a regular source of water for irrigation. Zimbabwe yields 8 tonnes of fruit from 1 acre as against Kenya's 3 tonnes.

The government must bring irrigation dams for the people and provide seedlings. In India, the irrigation dams are the ones that are also used for aquaculture.

Mr. Vaidya suggested that Kenya consider the formation of marketing federations such as the ones in India. Each sub-sector's federation would declare the prices regularly

Name of Company : Kenya Fruit Processors (KFP) .
Person Met: Said Ahmed Said, Managing Director.
Location:Thika.

The Kenya Fruit Processors Ltd was set up in 1965 by the Swiss for export of passion concentrate to Switzerland and did so quite successfully for a number of years. It was about 6 years ago that Mr. Said bought this with a partner who has land in a nearby area. They started making a juice brand called Passina which started as just passion but now also has guava, orange and mango flavors (from concentrates imported from South Africa) . In addition, Passina now bottles pasteurized public tap water from Thika municipality and sells it in retail supermarkets!

ACCESS TO RAW MATERIAL

Previously, KFP used to give the farmers seeds free of charge for passion but was discouraged when the quantities expected were not delivered to the processors. Brokers tend to favour the exporter and so the first choice is always given to them and the farmers are attracted to that as well. The processor buys the 3rd grade fruit after the export and local fresh produce markets have been tapped. Since fruit is seasonal for the most part, it means the supply to the processor is limited and erratic. KFP accesses its supply of passion fruit from within 50 kilometer radius of the factory

The other undermining factor for the fruit processor is the informal sector processor who does not pay VAT or any duties and taxes and so can sell at a much cheaper price . Many also just add colour and water and sell as “juice”.

DEMAND

There is a great deal of demand internationally for fruit concentrates. KFP has received inquiries from Egypt, Germany and Switzerland. Rotterdam is the fruit concentrate capital of the world. A 120 feet container of passion fetches about 53,000 USD. South Africa dominates the concentrates from Africa because its farmers have high productivity as they operate in cooperatives with boards of directors from the farmers themselves. Outgrowers associations market the produce themselves through marketing co-operatives. The concentrates are shipped from Durban and take about 7 days by ship to Mombasa ; from Mombasa to Nairobi takes 21 days .

Constraints

Concentrates are imported with a duty of 30%, 15% excise and 18% VAT. Packaging is Tetra-Pak and is very expensive. Cardboard trays and shrink fill wrapping is not cheap either. Communication is 4 times the price in South Africa or Egypt. Fuel for the furnace to make steam is also very expensive. What is comparatively cheap is the labour . Even with all these problems, there can be a profit margin of up to 30% .

Annex 3
List of Workshop Participants

Deloitte Touche Tohmatsu
USAID/Kenya BDS Program

**Workshop on Growth and Expansion of Kenya's Fruit Sub-Sector
List of Participants**

Name	Designation	Organisation	Physical Address	Tel. Nos	Email
Farmers					
1. Embrose Mbatia	Director	N/A	Box 528, Thika.	0722672292	N/A
2. K.Chandran	Co-ordinator	MangoKenya Network	Box 11267, Nbi.	339684	N/A
3. Eliud M.Esborn	Chairman	Horticultural S.H.G	Box 244, Embu.	0733662360	N/A
4. Devshi N.Kanbi	Director	Naran Furniture Agencies.	Box 122, Malindi.	0733639588	N/A
5. Vallabdas D. Patel	Managing Director	Sun Mango Ltd.	Box 62, Ruiru.	015154624	DMBL@wananchi.com
6. James Muoki	N/A	J.Muoki&Co Advocates	Town hse.7 th flr.	343100 0722336719	j.muoki2000@yahoo.com
Exporters					
7. John K.Ndugu	Operations Director	Vegmon Agencies	Box 27669, Nbi.	247420 0722887349	vegmon@insightkenya.com
8. Ashif Manzi	General Manager	Vegpro (K) Ltd	Vegpro Hse. JKIA	822831/3/4 822715	Ashif@vegpro-group.com
9. Kalbehusein Bandali	Director	Jakal Services Ltd.	Darsalam Rd.Msa.	011223360 011229435	jakal@form-net.com
Processors					
10. S.A.Said	Managing Director	Kenya Fruit Processors	Box 775, Thika.	015121645 015130225	info@kenyafruit.com
11. James Koome	Managing Director	Just Juice	N/A	825205	N/A
12. Barney Gasston	Production Manager	Sunripe 1976 Ltd	Cargo Village Jkia	825232	farms@sunripe.co ke

Input Suppliers					
13. Gikunda Iracha	National Sales Manager	Bayer E.A Ltd	Box 30321, Nbi.	860667/74	jiracha@bayer.com
14. Lankin N.Nyaga	Chief Agronomist	Amiran Kenya Ltd	Box 30327, Nrb.	824840/6	nyagal@amirankenya.com
Support Institutions					
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19. Joseph K.Njuguna	Research Officer	KARI	Box 220, Thika	015121284 0722365752	jknjuguna@yahoo.com
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Collaborating institutions/Observers					
21. Margaret Masbayi	Consultant	Fit Resources	Ralph banch rd.	2713473 0733737283	mmasbayi@yahoo.com
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Government institutions					
24. Jotham Ouko	General Manager	HCDA	Nairobi Hort. JKIA	827260/1/66	hcdameb@wananchi.com
25. Susan Muriuki	Horticulturist	Ministry of Agriculture	Kilimo Hse	718530	suzannairobi@yahoo.com
26. F.Philip Muema	Deputy Director	Ministry of Agriculture	Kilimo Hse.	718530	N/A
Kenya BDS					
27. Olaf Kula	Consultant	Kenya BDS			
28. Sunita Kapila	Consultant	Kenya BDS			

29. Antony Getabu	Consultant	Kenya BDS			
30. David Knopp	Chief of Party	Kenya BDS			david@kenyabds.com
31. Muli Musiga	BDS Specialist	Kenya BDS			musinga@kenyabds.com

Annex 4
Presentation to USAID Kenya
On
Kenya BDS
Activities 2&3

Kenya BDS

Increasing rural household incomes
through improved business service delivery

**Presentation for
USAID/Kenya**

Anthony Getambu, Sunita Kapila, Olaf Kula, Muli Musinga



February 28, 2003

**Deloitte
Touche
Tohmatsu**

Kenya BDS

Objectives of this Presentation

Summarize Results from implementation of :

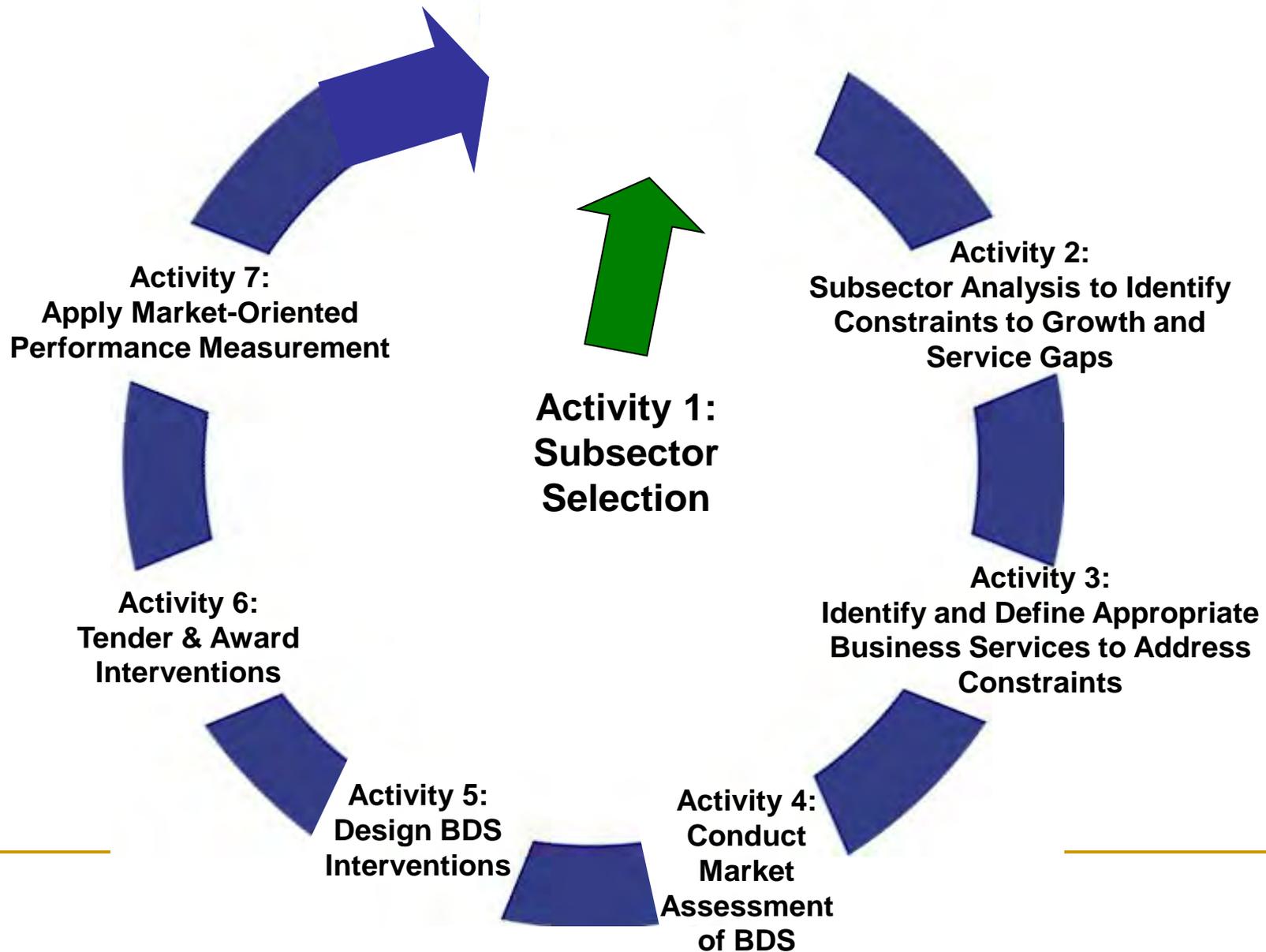
- Activity 2: Sub-sector Analysis to Identify Constraints to Growth and Service Gaps
 - Activity 3: Identify and Define Appropriate BDS to Address Constraints
-

Kenya BDS

Methodology:

- Literature review of existing subsector materials
 - Initial subsector study
 - Field Assessment: Constraints survey
 - Stakeholder Constraints/Services Vetting workshop
 - Analysis and Prioritization of Services
-

KENYA BDS: A recap of Activity One



KENYA BDS

Activity 1: Subsector Selection (summary)

- Identify subsectors that
 - Maximize outreach potential
 - Maximize growth potential



KENYA BDS

Activity 1: Subsector Selection (summary)

The result: The tree fruit subsector

- Mangoes
 - Avocadoes
 - Passion fruit
-

KENYA BDS

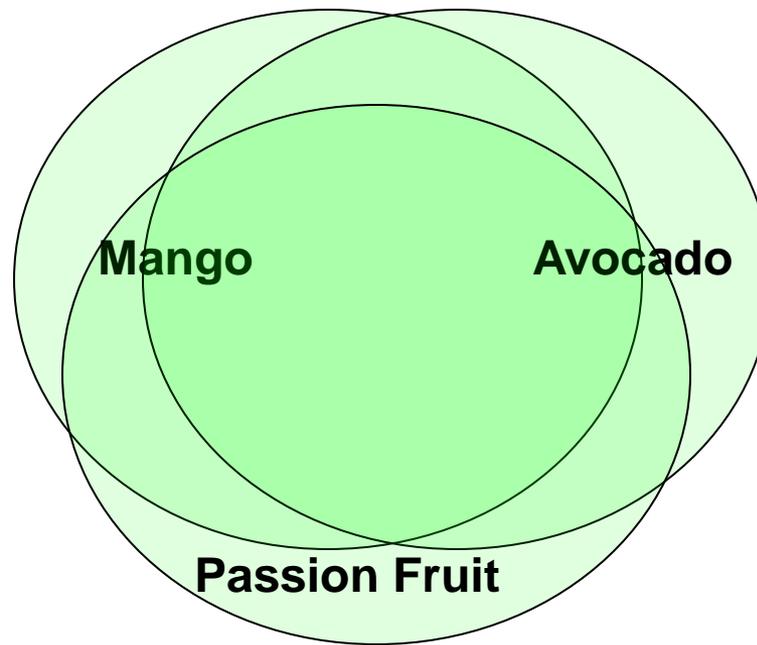
Activity 1: Subsector Selection (summary)

Three fruits one subsector? Why?

A high degree of intersection among

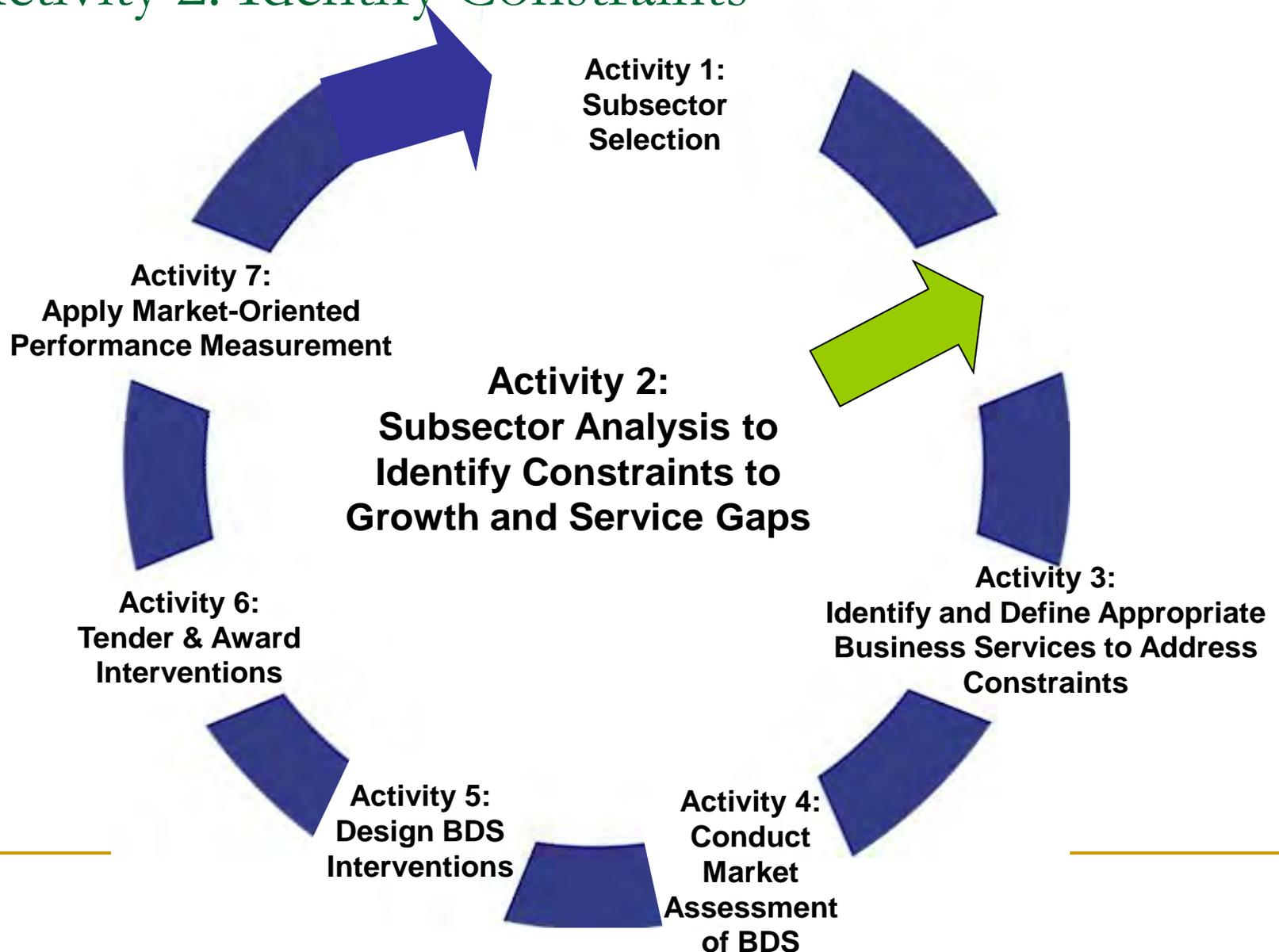
- Participants
- Functions
- Constraints

For each fruit



KENYA BDS

Activity 2: Identify Constraints



KENYA BDS

Activity 2: Identify Constraints

Key constraints from field work:

- Market Access (mostly for small holders)
 - Technology: (irrigation, varietal, processing)
 - Information: (extension, export market)
 - Org. & Management (at all levels) 
 - Finance: (processing, and producer levels)
 - Legal and Regulatory (mostly external)
 - Infrastructure: (road access to rural areas)
-

KENYA BDS

Activity 2: Identify Constraints

Ten Critical Constraints emerged:

1. Inadequate raw material supply (passion, processing)
 2. Lack of information on variety input use, quality, MRL, requirements;
 3. Weak access to high value markets (small holder and exporter)
 4. Lack of credit access (input supply and equipment finance)
 5. Lack of buyer reliability (exporters)
-

KENYA BDS

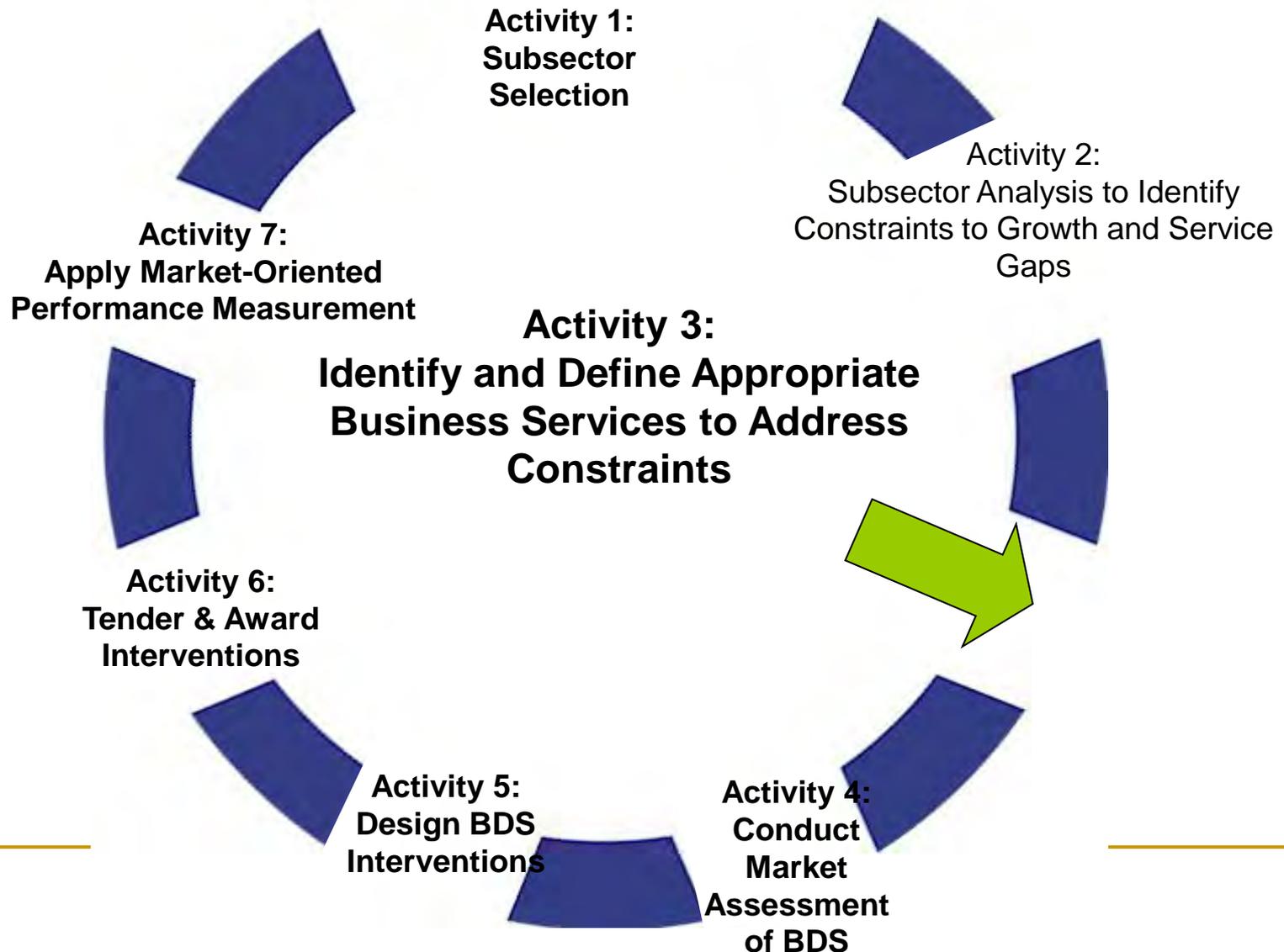
Activity 2: Identify Constraints

Ten critical constraints (cont'd)

6. Lack of business orientation of small-holder
 7. Weak organization of product assembly
 8. Lack of processing of local product
(technology, and finance)
 9. Local and overseas market promotion (Kenya label)
 10. Inadequate infrastructure (road access)
-

KENYA BDS

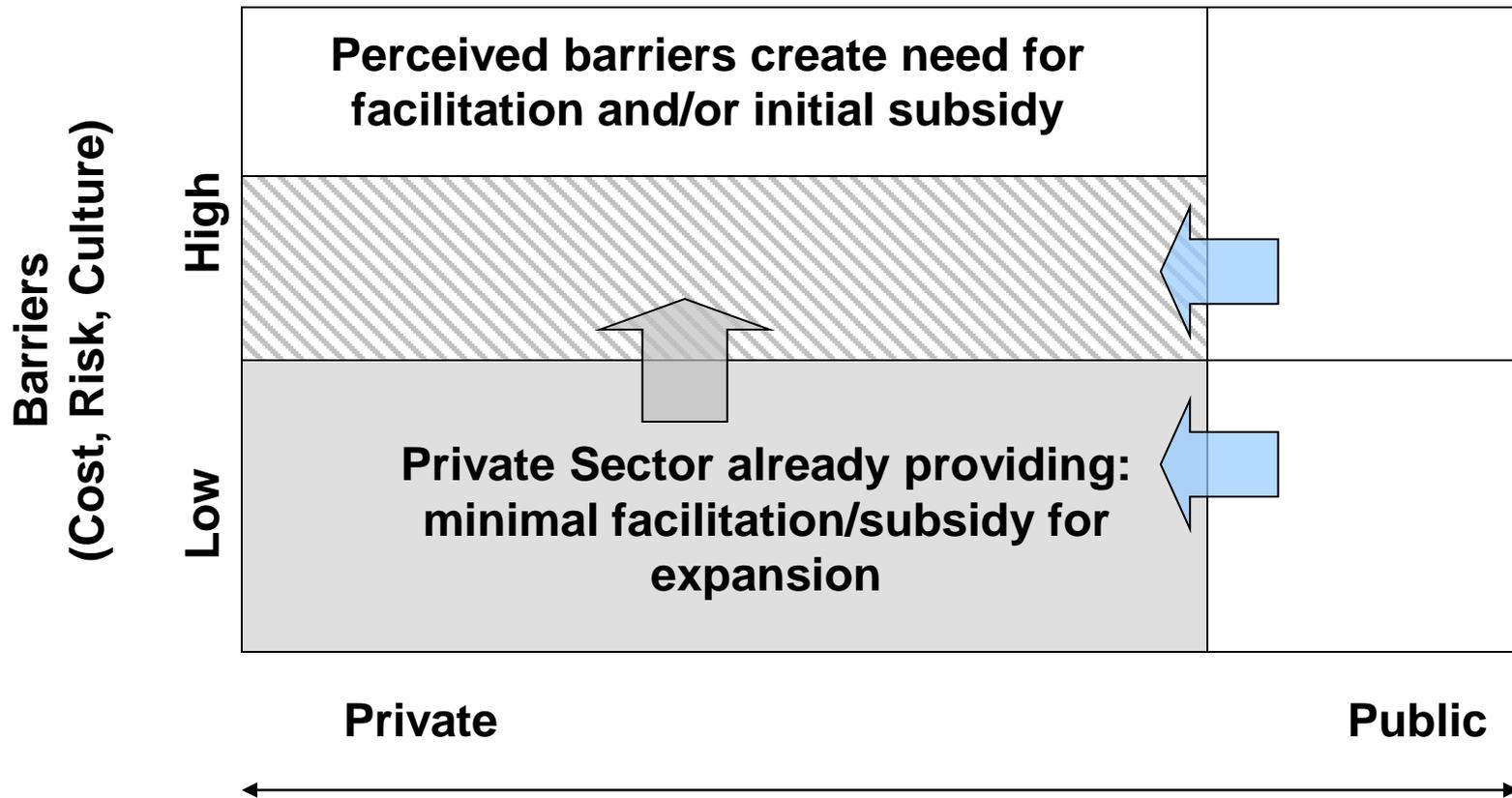
Activity 3: Identify Services



KENYA BDS

Activity 3: Identify Services

A framework for analysis



KENYA BDS

Activity 3: Identify Services

Participant stakeholders were asked to **identify** critical services that address critical constraints and are likely have the greatest impact on:

- Rural household incomes and
 - Outreach
-

KENYA BDS

Activity 3: Identify Services

Participant stakeholders were asked to **prioritize** services which have the greatest potential in terms of the following criteria:

- Provided wholly or in part by the private sector
 - High potential to stimulate growth in product markets
 - Strengthen the performance of the value chain
 - Target small enterprises
-

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Activity 3: Identify Services

Services correspond and respond to identified constraints.

- In the participatory vetting workshop stakeholders were asked to identify a service(s) that could resolve a critical constraint.
 - The interdependence of some constraints resulted in services that addressed multiple constraints
-

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Activity 3: Identify Services

8 key services were identified

1. **Product Assembly/grading**
 2. Financial brokering (processing and SH level)
 3. **Quality Control (production level)**
 4. R&D (local adapted varieties, processing, and consumer preference for new products)
-

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Activity 3: Identify Services

8 key services were identified cont'd

5. **Access to Inputs at Small Holder Level**
 6. Establish Kenya label (domestic and export)
 7. Appropriate Technology (irrigation and processing)
 8. Business Skills (farming as a business)
-

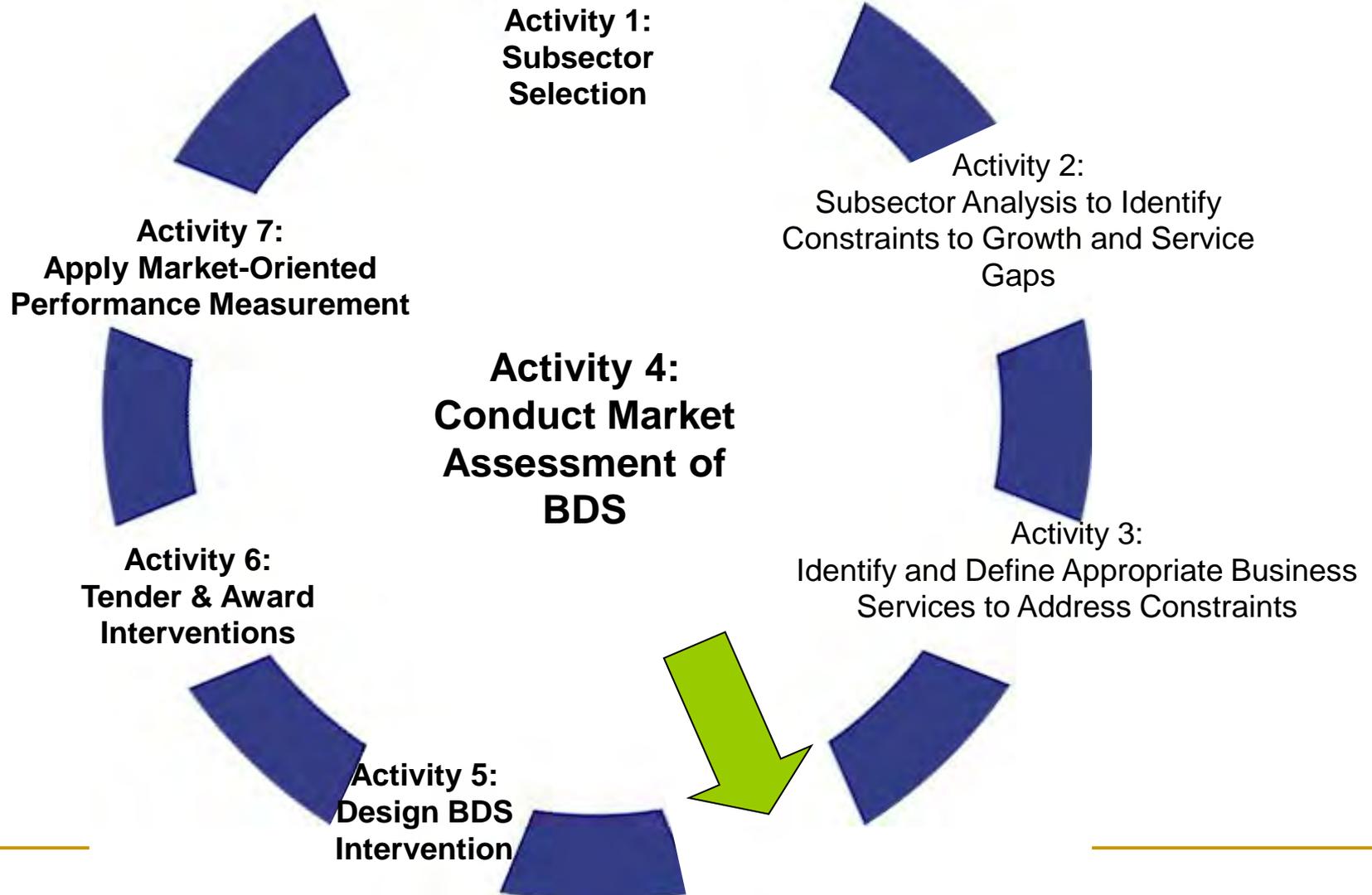
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Activity 3: Identify Services

Initial Proposed Business Services for Assessment based on established criteria.

- Product Assembly, grading,
 - Quality control (extension, certification,.....)
 - Input supply delivery at the smallholder level
-

KENYA BDS: The Next Step



KENYA BDS

Lessons learned

- Some business services require no more intervention than bringing stakeholders together (deals)
- Tree fruit subsector is less developed than the rest of the horticulture subsector
- Private sector prepared and committed to developing services that respond to critical constraints
- Bringing together key stakeholders in this cluster stimulates the identification and implementation of services.

