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# FINAL REPORT

**KENYA BUSINESS DEVELOPMENT SERVICES PROGRAM**

**SEPTEMBER 26, 2002 – SEPTEMBER 30, 2008**

**October 2008**

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**SEPTEMBER 26, 2002 – SEPTEMBER 30, 2008**

**Submitted by:**

Emerging Markets Group, Ltd.

**Submitted to:**

USAID/Kenya

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**DISCLAIMER**

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



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## PREFACE

Every now and then a project comes along that sets new standards for implementation of development projects. Kenya Business Development Services – Kenya BDS – was such a project. Over a six year period with a team that remained for the most part intact, and for a relatively small amount of funding, this project significantly impacted the lives of thousands of Kenyan smallholder farmers, while informing the global community of development practitioners of new and innovative ways of implementing economic growth initiatives.

With a budget of less than \$6 million of which \$2.4 million was dedicated to a fund, and from a small, obscure office in the Westlands district of Nairobi, David Knopp and, his Kenyan team, took an innovatively designed project concept, and turned it into a living laboratory that maximized the use of Kenyans and Kenyan expertise, assumed a leadership role among the development industry in Eastern Africa, and was constantly on the leading edge of the value chain learning agenda.

While Kenya BDS had its birth during the zenith of the “BDS” era, underneath, it was always about linking profitable market opportunities and smallholder farmers. Where Kenya BDS made its mark was how these linkages were created, and how they were made sustainable. The greatest compliment to the Kenya BDS team came when smallholder farmers sat down with lead exporting firms – without the presence or intervention of the KBDS team – and found solutions to new constraints that had arisen as a result of weather, consumer demand, over- or under-production. A truly dynamic process! Rather than delivering services directly, the project incentivized Kenyan service providers to find ways to commercially address value chain constraints, and in the process to break their dependency upon third party interventions and subsidies.

Although information about what type of fruit to grow or how to improve production was readily available, it was the understanding of the power and incentive structures that held the key to unlocking the potential in the avocado, passion fruit, mango and Lake Victoria fish value chains. The implementation team had to observe and facilitate, while practicing restraint against what comes naturally – provide the solution directly – and letting failure become part of the learning curve.

Kenya BDS produced clear results and measureable impacts, which are elaborated in this final report, and shared how this success was achieved with practitioners throughout the world at Turin, Chiang Mai, Glasgow and Washington. In addition the project inspired the creation of an East Africa BDS practitioner forum which continues to bring together practitioners and best practices to this day.

The responsibility of this success lies squarely with the implementing team led by Chief of Party, David Knopp. He received total support from Phareh Ratego, USAID Cognizant Technical Officer, and from Meg Brown and Allen Fleming of the ABEO Office at USAID. From the EMG home office, David and his team received support from Beatrice Kinyanjui, John Hanawa, Emma Murphy, and Dave Dupras, who also served as the Chief of Party for the last six months of the project.

But most important of all, the success was possible due to the active participation and engagement of the Kenyan stakeholders, who took up the challenge to improve their livelihoods and therefore own this success.

Ken Smarzik  
Managing Director, Economic Growth  
Emerging Markets Group, Ltd.  
Washington, DC  
October 2008



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## ACRONYMS

ABEO	Agriculture, Business, and Environment Office/USAID
AFIPEK	Kenya Fish Processors and Exporters Association
AFP	Artisanal Fish Processors
AMAP	Accelerated Micro-Enterprise Advancement Project
AOL	Agri-Outlets Market Linkage
ASCA	Accumulated Savings and Credit Model
ASCU	Agriculture Sector Coordination Unit
AWAN	African Women’s Agricultural Network
BDS	Business Development Services
BDCG	BDS Donor Coordination Group
BMU	Beach Management Unit
BOS	Business Opportunity Seminars
BSMDP	Business Services Market Development Project
BSP	Business Service Providers
CAMETA	Capital Micro Enterprise Training Agency
DANIDA	Danish International Development Project
DFID	Department for International Development [UK]
EAG	East Africa Growers
EDC	Enterprise Development Consultants
EMG	Emerging Markets Group, Ltd
ES	East and Southern Africa
ESALIA	Eastern and Southern African Leather Industries Association
FRR	Fine-line Rural Reach
GOK	Government of Kenya
GMO	Group Management Officer
HCDA	Horticultural Crops Development Authority
IBL	Ideal Business Links
IML	Ideal Matunda Limited
IF	Intervention Fund
IEHA	Initiative to End Hunger in Africa
IFAD	International Fund for Agricultural Development
IFP	Industrial Fish Processors
ISP	Independent Service Providers



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KACE	Kenya Agricultural Commodity Exchange
KARF	Kenya Access to Rural Finance
KARI	Kenya Agricultural Research Institute
KEPHIS	Kenya Plant Health Inspectorate Services
Kenya BDS	Kenya Business Development Services
KHDP	Kenya Horticulture Development Project
KHE	Kenya Horticulture Exporters
KSh	Kenyan Shillings
MESPT	Micro-Enterprise Support Program Trust
MIS	Management Information Systems
MLF	Market Linkage Firms
MOFD	Ministry of Fisheries Development
MSE	Micro- and Small Enterprises
MRL	Maximum Residue Levels
PEV	Post Election Violence
QMS	Quality Management Systems
RMC	Resource Management Centre
SACCO	Savings and Credit Cooperative Organizations
SHOMAP	Smallholder Horticulture Marketing Programme
SNV	Netherlands Development Organization
USAID	United States Agency for International Development



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## I. EXECUTIVE SUMMARY

The Kenya Business Development Services Program (Kenya BDS) was a six-year micro and small enterprise (MSE) development project funded by the United States Agency for International Development (USAID). It was one of the first USAID-funded programs to apply a value chain approach to market development. The approach was based upon the causal model that by addressing specific constraints along the value chain, program facilitation activities would lead to increased competitiveness, resulting in sustained access to business services, increased MSE incomes, and overall growth. As prime contractor, Emerging Markets Group, Ltd. (EMG) provided overall project implementation and management capacities, sub-contracting with Deloitte, ACDI/VOCA and FIT Resources.

The objective of Kenya BDS was to increase growth and incomes among rural MSE through:

- 1) access to markets; and
- 2) access to skills and resources to compete in those markets.

The Kenya BDS program was most concerned about “*increasing micro-enterprise growth through improved business service delivery*”. It sought to increase MSE access to commercial business services in selected high growth sub-sectors, and during the term, Kenya BDS was expected to contribute to:

- Increased rural household incomes
- Increased sales in selected sub-sectors
- Increased outreach and sustainability of BDS activities offered by multiple providers to large numbers of MSE clients, and
- Enhanced competitiveness and skills base among MSEs.

Unlike traditional development programs, the Kenya BDS approach did not operate from a pre-defined set of activities. The Program first selected a value chain of high growth potential for rural MSEs, and then conducted value chain analyses to provide a description of the sector, map out commercial relationships among market actors and channels, and break down costs of production to identify inefficiencies and opportunities for intervention. Through participatory mechanisms, such as focus group discussions, field questionnaires, and stakeholder vetting forums, the Program worked with industry actors to identify and validate critical bottlenecks and constraints within the value chain, and developed an upgrading strategy for increased industry competitiveness.

The Kenya BDS program was designed to be responsive and flexible, to introduce new interventions on an ongoing basis in response to changes in the market. Once key constraints and opportunities were prioritized, Kenya BDS designed interventions which were tendered through the Market Intervention Fund (IF) – a centralized funding pool designed to respond to market constraints. A significant component of the Intervention Fund was a combination of funding of value chain interventions, as well as information dissemination techniques to stimulate commercial transactions. Through the IF, tenders were competed among local facilitators to develop the market for select business services. This approach maximized the utilization of Kenyan expertise and encouraged market sustainability.

The Kenya BDS program was to select and work in 2-3 sub-sectors of high growth potential for MSEs. The sub-sector selection study was completed at the end of the first year and the initial baseline study was completed in December 2003 in the first selected sub-sector – tree fruits. The second baseline study was completed in February 2004 on the second selected sub-sector – Lake Victoria fisheries. As critical constraints to the sub-sectors’ value chains were identified, the Program identified opportunities and facilitated the delivery of appropriate business services to rural MSEs by encouraging local business



Service Providers (SP) to address these constraints. The SPs were supported by Kenya BDS on the condition that they would operate on a sustainable, commercial basis.

Also unlike other donor-funded programs, Kenya BDS took a firm stance against embedding itself in the value chain by assuming roles and providing business services which should be undertaken by the private sector (i.e. financing, transport, collection, etc.). Maintaining a strict adherence to these principles built the capacity of private sector entities to assume these roles. Additionally, stakeholder analysis deemed that MSE producers could not be linked to the market until they were organized into well-managed and transparent producer groups. Producer group formation was therefore an important but time-consuming activity for Kenya BDS, and contributed significantly to capacity building, sustainability and replication.

Field activities were largely characterized by pilot interventions that were limited to approximately a one year period of performance. Those interventions that were shown to be successful were ramped up and replicated, while those that failed to commercialize were modified or discontinued. Kenya BDS was not obligated to continue funding of an intervention that failed to achieve market sustainability.

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## SUMMARY OF ACCOMPLISHMENTS

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### Intervention Fund

- 69 grants were awarded worth over \$2,400,000 to market linkage firms and service providers to deliver commercial business services to more than 21,000 MSEs
- 3 of the market linkage firms are women-owned (75%)
- 40% of MSE beneficiaries were women

### Tree fruit: Avocado

- 6 exporters have supply contracts with small-holder farmers owning 129,998 trees
- 4 industrial-scale avocado oil processors started-up
- 3 rurally based market linkage firms started-up serving over 21,000 small-holder farmers
- 3,795 farmers accessed bank loans with a 95% repayment during the first year
- Over 100 service providers emerged to provide spraying, grafting, pruning and transportation services

### Tree fruit: Mango

- 3,037 small-holder farmers in 5 production clusters with 107,443 trees
- 6,961,256 KSh of sales of Grade 1 fruit in Year 5, and 9,219,168 for Grade 2

### Vines: Passion Fruit

- 4 leading exporters had supply contracts totaling 272,712 vines
- 1 rurally based market linkage firm supported 2,215 small-holder farmers
- 297 small-holder passion fruit nurseries established and in operation

### Fish: Omena

- 642 omena women processors organized into 21 groups on 17 beaches
- 300 MT of fish sold to exporters through supply contracts worth over 13,500,000 KSh

### Fish: Nile Perch

- 5 women fish skin groups established, processing 28,842 hides worth 206,569 KSh





- 6 beach banks in operation with over 14,500 clients and over 102,900,000 KSh of savings
- 42 fish gear retailers and 6 wholesalers supplying 2,500 fisher folk
- 50 fishermen and 30 fish brokers from 20 key beaches were sensitized in a two day training session to Nile Perch sustainability issues- an estimated 10,000 fisher-folk were informed through public awareness posters and newspaper advertisements
- Multi-national and industry-wide memoranda are signed to provide for self-regulation of Nile Perch sizes in Lake Victoria to sustain the fishing industry
- The MOFD supported AFIPEK inspectors and enforced a penalty upon a processor for exceeding the limit on undersized Nile Perch in its factory and shut down the plant for one week.

#### Fish: Tilapia

- 40 fish pond farmers developed and organized into 4 production clusters with 136 ponds and 7 hatcheries
- 3 caged tilapia producers groups in operation in Central Province with 28 cages and 3,000 table-sized fish expected to be harvested in November 2008
- 35 fish inspections were conducted in September 2008, with 28 compliant reports on IFP; one IFP was penalized for exceeding limits on undersized fish in its factory and was stopped from exporting fish for one week. As a result, all IFPs tightened controls, rejecting undersized fish, and pressure was placed on the inspectors. The MOFD supported AFIPEK inspectors and enforced the penalty.

### HIGHLIGHTS OF LESSONS LEARNED

After six years of implementation of this project, there are several key lessons that were retained, and that should inform future activities aiming to stimulate economic growth focused on the poor:

- **Maintain a Market and Complete Value chain Focus:** Traditional MSE projects direct all support to targeted beneficiaries – the MSE or smallholder farmer. However, interventions may be required at all levels of the value chain in order to remove bottlenecks or inefficiencies. And, unless there is an end market demand or the lead firms are competitive, there will be no “market pull”.
- **Flexibility in Program Design and Dynamic Management of Value chain is Critical:** Markets are dynamic and therefore require structures and processes within a project to be market responsive. The ability to read and respond to opportunities and constraints in the market is critical. A centralized pool of funding as well as dynamic management is important.
- **Identifying Incentives is Necessary for Understanding Market Behavior:** When designing for sustainability, it is critical to identify the incentives among market actors. This is necessary to understand how and why decisions are made, which directly shapes the nature of the interventions.
- **Stakeholder Buy-In and Industry Ownership is Critical:** Ownership and buy-in among all value chain actors is critical for success. Unless key members of the value chain share the same vision for competitiveness or are willing to invest, the Program is a nonstarter.
- **Strive for Minimalism and “Light Touch” Interventions:** Whenever possible try to intervene with the smallest amount of assistance necessary to stimulate market response. This minimizes market distortions and allows a project to expend resources in multiple areas of support.
- **Sustainability is Everything:** Interventions should always be grounded within a clear exit strategy. Numbers are easy to achieve. It is important to ask what is sustainable. What remains in place, and can replicate and grow on its own based purely upon market incentives of making money.



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## II. INTRODUCTION

This document is the final report for the Kenya Business Development Services Program. As per the contract with USAID, this final report must: “*summarize the accomplishments of the assignment, methods of work used, and recommendations regarding unfinished work and/or program continuation.*” As such, we have structured this report along these lines:

- Brief Background
- Summary of Accomplishments
- Methodology
- Recommendations
- Key Lessons Learned.

### Background

According to the Request for Proposals, the Kenya BDS program “*aims to increase income-earning capacity of the micro-enterprises, in line with USAID/Kenya’s Strategic Objective 7 of increased rural household incomes. It is expected to bring about a more vibrant microenterprise environment reflected by increased profitability, greater ability to withstand market variability, and faster growth. This will be achieved by providing micro-enterprises with a wide array of useful, affordable and high quality services, on a sustainable and large-scale basis.*”

In 2002 and 2003 Kenya BDS personnel performed sub-sector selection, baseline studies, and value chain analyses to identify appropriate interventions and opportunities in the tree fruits and Lake Victoria fish sub-sectors.

From January 2003, Kenya BDS worked within the tree fruits sub-sector, with a focus on avocados, mangoes and passion fruit. Based upon the geographical locations of the fruit, activities were targeted in the Central, Eastern, and Coastal Provinces.

Kenya BDS also targeted the Lake Victoria fish sub-sector, with a focus on Nile perch (*Lates niloticus*), omena (*Rastrineobola argentea*), tilapia (*Oreochromis spp.*), and catfish (*Clarias gariepinus*) in the Nyanza region. Additionally, in recognizing excellent market potential and an opportunity to increase farmer revenue generation, Kenya BDS expanded its work with tilapia to introduce caged tilapia farming in Central Province.

In February 2008, the market linkage firm WMG, signed a contract with Kenya BDS to introduce intensive fish culture by rearing tilapia in locally made cages that float in dams. A technician from the GOK Ministry of Fisheries provided technical assistance to WMG and the farmers in cage construction and fish husbandry, including feed formulation using locally available foodstuff.

In April 2008 Kenya BDS signed a contract with Kenya Fish Processors and Exporters Association (AFIPEK) to design and implement a public-private partnership working with stakeholders throughout the value chain to protect the sustainable harvest of the Nile perch by voluntarily limiting the harvest of juvenile fish from Lake Victoria.

Key activities in all sub-sectors have focused on those service areas deemed critical for MSE growth and profitability, and vital to improved efficiencies within the value chain. Areas of particular emphasis included business linkages, commercialization of input supply and extension services, savings mobilization, cluster development, and embedded service facilitation between lead firms and MSE producers.



### III. SUMMARY OF ACCOMPLISHMENTS

#### Analysis of Results Accomplished

Following is a brief summary of Performance Monitoring Plan (PMP) targets and cumulative results achieved through the end of Year 6. Please see Annex A, Performance Monitoring Plan for the Strategic Objective and PMP indicators, and progress towards achieving the Life of Project targets.

**Table A: Performance Monitoring Plan Achievements**

Strategic Objective Indicators	Life of Project Targets	Cumulative Results	% Achieved
Total number of MSEs accessing commercial business services	65,235	74,326	114%
Total number of <b>women</b> MSEs accessing commercial business services	26,094 (40%)	24,913 (34%)	95%
Total number of Business Service Providers participating in the Kenya BDS Program target areas	1,070	1,592	148%
Total number of <b>women</b> Business Service Providers participating in the Kenya BDS Program target areas	642 (60%)	510 (32%)	79%
Total number of MSEs aware of program assisted business services	263,000	263,803	100%
Total number of MSE producers linked with the commercial market	22,250	24,501	110%
Total number of <b>women</b> MSE producers linked with the commercial market	8,900 (40%)	8,122 (33%)	91%

By the end of the Project, Kenya BDS had achieved or surpassed four of the eight PMP Indicators and came within ten percent of two others. Overall the project was lower in achieving gender related targets, namely “*Total number of Business Service Providers participating in the Program*” and “*Total number of women MSE linked with the commercial market.*” It is the opinion of project personnel that the latter target figures were actually achieved because traditional record keeping in Kenya only counts the man’s involvement in the project, even though it is a jointly operated farm, often with the wife doing the majority of the field work. However, the project failed to meet the number of female business service providers for a variety of reasons, primary among which is the difficulty in Kenya for women to have title to land and to obtain commercial loans to be used to buy capital equipment necessary to become a service provider.

Through the Intervention Fund, Kenya BDS awarded 69 grants worth more than 27,000,000 KSh (\$2,400,000<sup>1</sup>) to support facilitators, market linkage firms (MLFs) and business service providers (SPs) which provided commercial business services to over 21,000 Kenyan micro and small enterprises. Three of the four MLFs are women-owned and approximately 40% of the MSEs supported were oriented towards activities primarily undertaken by women. Quantitative achievements are summarized below by sub-sector:

<sup>1</sup> This represented 40% of the total project budget of \$6 million.



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#### Tree fruit: Avocado

- 6 leading exporters had supply contracts with small-holder farmers representing 129,998 trees
- 4 industrial-scale avocado oil processors emerged
- 3 rural-based market linkage firms emerged, supplying services to over 21,000 small-holder farmers
- Prices for Grade 1 fruit increased by 400% from 0.50 to 2.50 KSh
- Prices for the Fuerte variety at the farm gate increased from 0.50 to 3.50 KSh
- Prices for the Hass variety at the farm gate increased from 1 to 4.50 KSh
- 3,795 small holder farmers accessed bank loans for agrochemicals with a 95% rate of repayment
- 42 accredited agrochemical service providers were developed
- 60 grafting and pruning service providers were developed, rehabilitating over 34,000 avocado and 23,000 mango trees
- 25,000 improved seedling varieties were planted, with production to begin in 2010
- A Quality Management Systems (QMS) manual was developed for avocados

#### Tree fruit: Mango

- 3,037 small-holder farmers in 5 production clusters, representing 107,443 trees engaged on the project
- Year 5 sales of Grade 1 fruit reached 6,961,256 KSh, 9,219,168 KSh for Grade 2

#### Tree fruit: Passion Fruit

- 4 leading exporters had supply contracts with small holder farmers representing 272,712 vines
- Average monthly sales reached 70 MT of Grade 1 fruit at 60-70 KSh/kg
- 1 rural based market linkage firm supported 2,215 small-holder farmers
- 297 small-holder passion fruit nurseries were established and are in operation
- A QMS manual was developed for passion fruit
- A MIS was developed for management efficiency and traceability

#### Lake Victoria Fish: Omena

- 642 omena women processors were organized into 21 groups on 17 beaches
- 300 MT of fish sold to exporters through supply contracts worth over 13,500,000 KSh

#### Lake Victoria Fish: Nile Perch

- 5 women fish skin groups established, processing 28,842 hides worth 206,569 KSh
- 6 beach banks in operation with over 14,500 clients and over 102,900,000 KSh in savings
- 42 fish gear retailers and 6 wholesalers were linked supplied 2,500 fisher folk
- Multi-national and industry-wide Memoranda were signed to self-regulate Nile Perch catch size on Lake Victoria to sustain the fishing industry

#### Lake Victoria Fish: Tilapia

- 40 fish pond farmers developed and organized into 4 production clusters with 136 ponds and 7 hatcheries



- 3 caged tilapia producer groups are in operation in Central Province with 28 cages and 3,000 table-sized fish expected to be harvested in November 2008
- 35 fish inspections were conducted in September with 28 compliant reports on independent fish processors (IFP). An IFP, W.E. Tilley, was penalized for exceeding the limit on undersized fish in its factory and was stopped from exporting fish for one week. As a repercussion, all IFPs tightened controls, rejecting undersized fish, and pressure was placed on the inspectors. The MOFD supported AFIPEK inspectors and enforced the penalty.

## Key Accomplishments

The core objective of Kenya BDS was to “*increase access to business services for rural MSEs.*” Unless program interventions result in the sustainable existence of a competitive business services market, the sheer numbers of MSEs reached or service providers developed would have been meaningless. The Kenya BDS mantra was that a donor practitioner has no business developing, promoting, or facilitating a service if it is not commercially viable in the local market. This is in line with the USAID objective to “*increase access to business services*” on a commercial basis.

Following are the ten most significant accomplishments where Kenya BDS introduced, demonstrated, and left behind a functioning commercial intervention that can both replicate and expand without further donor support:

### ACCOMPLISHMENT 1: EMERGENCE OF A COMPETITIVE TREE FRUIT MARKET LINKAGE INDUSTRY

Donor practitioners have continuously struggled over viable models for linking smallholder farmers with markets. Some have financed the operations of an NGO to undertake the activity while other projects have directly assumed key roles within the supply chain such as: collection, transportation and payment. Such activities not only distort markets, but reinforce the donor handout mentality while virtually ensuring that the activity is unsustainable.

A key achievement over the life of Kenya BDS is the evolution of market linkages (referred to by others as brokerage services) as a commercial business service. Kenya BDS has developed four market linkage firms (Sure-Link, Fineline Rural Reach, Agri-Outlets, Ideal Matunda Ltd.) that are providing brokerage services to over 21,000 farmers, to six major tree fruit exporters and four industrial tree fruit processors on full commercial terms. No operational subsidies are provided by Kenya BDS, rather, both farmers and lead firms share the cost of the service based upon a percentage levy of all acceptable-grade fruit purchased by the exporter.

Kenya BDS required that the service must also be entirely demand-driven. To accomplish this criterion at the beginning of the project, Kenya BDS hosted a series of marketing meetings with avocado group leaders in select production clusters of Central Province. The purposes of the meetings was for group leaders to interview representatives of both brokerage and lead firms, and collectively decide how best to market and sell their avocados during the upcoming harvesting season. For Kenya BDS it was a satisfying experience. The fact that group leaders were interested in having such meetings underscored the perceived value among farmers. This practice continued throughout the life of the project. Moreover, the presence of brokerage firms competing for business among farmers without the lure of a donor subsidy is testament that a commercial opportunity exists and that money can be made.

### ACCOMPLISHMENT 2: DEVELOPMENT OF THE NILE PERCH FISH SKIN MARKET

Nile perch (*Lates niloticus*) skin is a by-product that has been traditionally used as a source of fuel or discarded as a waste product in the Lake Victoria region where the fish is caught and processed.



Conservative figures estimate average monthly production of fish skins at approximately 20,000 to 30,000 kilograms, which if processed into finished leather would provide 140,000 to 210,000 sq feet. Finished fish skin leather retails for approximately US\$ 1.20 per sq foot. Despite the income earnings potential, the local fish industry had not recognized the economic value of fish skin.

A key project achievement has been the development of the Nile perch fish skin industry in Kenya, which now has the potential to provide significant employment and earnings for women owned and operated artisanal fish processors along the shores of Lake Victoria, while exploiting the use of a previously wasted by-product. Working through the Kenya BDS facilitator, ESALIA, the Program provided: group formation development, guidance on raw material sourcing, and technical assistance on wet-salt preservation. These activities have enabled pilot women's groups to achieve gross margins between 3-6 KSh per hide. Participation in international trade fairs over the past year (*Meet in Africa Trade Fair*) combined with product development from short-term experts from Italy have resulted in standing orders from tanneries exceeding 1 metric ton per week. Pilot groups such as the Kisian Women's Group have reached production of 4,000 hides per week, with gross margins of KSh 42,000-84,000 per month at full capacity. With demand now exceeding supply, Kenya BDS was able to expand wet-salt preservation of fish skin to four additional women groups in Homa Bay. More recently, due to the disputed national presidential elections and the ensuing post election violence, Al-Pharama, the tannery suspended purchasing of the cured skins and resumed buying them in July. However, due to quality issues it again suspended its purchases until the Kenya BDS facilitator, ESALIA, conducted remedial skin curing classes which brought the skins up to the tannery's quality standards. \

### **ACCOMPLISHMENT 3: REPLICATION OF COMMERCIAL SPRAY SERVICE PROVISION AND AGROCHEMICAL LOAN PRODUCT TO OTHER COMMODITY MARKETS**

Agrochemicals increasingly play a decisive role in determining the profitability and incomes of small-scale farmers in the fruit and horticulture sub-sectors. The right application of pesticides and fertilizers is known to increase the production of fruits by upwards of 75% while ensuring that over 95% of the production meets market requirements for quality. However, Kenyan farmers did not often have the financial resources to apply chemical fertilizers and sprays to their crops and have difficulty in obtaining credit as traditionally, financial institutions in Kenya have perceived smallholder farmers as un-bankable, while the presence of quality agrochemical spray services was limited to non-existent.

In response to these constraints, Kenya BDS piloted a two-pronged intervention:

- 1) Development of a cadre of well trained and equipped commercial sprayers; and,
- 2) Launching of a loan product through Equity Bank whereby farmers could access spray services on credit.

Three Equity Bank branches – Thika, Muranga, Kangari – approved loans for 130 groups, disbursing a total of KSh 1,751,909. 99% of the loans were repaid within the calendar year, which is remarkable given the pilot nature of the product. To ensure services were undertaken within a centrally managed regime that responded to GlobalGap protocols, 42 sprayers were housed within a rural-based company. Approximately 3,055 farmers accessed commercial spray services reaching 23,916 trees. This innovative value chain financing scheme for the delivery of agrochemical spray services is an achievement is presently being replicated by Equity Bank in the mango and coffee sectors.

### **ACCOMPLISHMENT 4: DEVELOPMENT OF COMMERCIAL AQUACULTURE PRODUCTION IN WESTERN KENYA**

Although gill net fishing is widely practiced in Lake Victoria, fisher-folk often utilize illegal mesh-sized nets which have a damaging effect on sustainable harvests as the small mesh-size catches undersized or



juvenile fish. An alternative method is long-line fishing, using fingerling-sized catfish (*Clarias gariepinus*) as bait. Long-line fishing is not only the preferred method by fisher-folk, but is less damaging on the environment. It is estimated that there is an unmet demand exceeding 1 million fingerlings.

A key achievement has been the introduction of small-scale baitfish farming in Western Kenya for commercial sale to Nile perch fisher-folk. Through technical assistance in propagation, production, and general pond husbandry, 136 ponds and 7 hatcheries are now operational. Through training in group formation, enterprise budgeting and cash-flow analysis, 40 small-scale baitfish farmers have been developed and organized into 4 production clusters. Farmers are now leveraging their group structures for the bulk purchase of inputs, joint-propagation of fish seed, and harmonization of production schedules with end-market intermediaries to achieve economies of scale and a steady supply of fingerlings throughout the season. In addition, some fish farmers have taken the technology and also raise tilapia for sale, recognizing a huge, unmet market demand for fresh fish.

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#### **ACCOMPLISHMENT 5: CREATION OF A COMMERCIAL MARKET FOR GRAFTING AND PRUNING SERVICES**

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Grafting and pruning services were identified by Kenya BDS as a critical activity for increasing yields, productivity, and incomes among smallholder tree farmers. Grafting allows a farmer to change varieties of already established orchards to suit market trends, increase the growth rate of seedlings, take advantage of rootstocks of superior growth traits, and increased resistance against disease and insects, all leading to higher productivity and fruit quality. Pruning is not only critical for pest and disease control and the production of higher quality fruit, but it allows a farmer to control tree size for ease of harvesting and chemical application, while allowing for faster vegetative growth, early flowering, and production of larger fruits.

Kenya BDS scaled up efforts to develop a total of 95 grafting and pruning service providers. Of the 95 trained, 93% (88 service providers) are currently operating successfully as independent business-people in the private sector. Some providers have developed relationships with small-holder farmers on a retainer basis, whereby they have been contracted to oversee a farmer's crop on a monthly basis, and provide crop husbandry services when needed. One female provider based in Makueni developed a new technology for dissecting a scion (a cutting from an improved tree variety used to graft on to an existing branch), thereby producing two for grafting. The technology has been studied by KARI Kenya Agricultural Research Institute), and recently introduced into its own technical curriculum.

Through Kenya BDS support to local facilitator Ideal Business Link (IBL), the grafting and pruning service providers are presently operating on full commercial terms. The intervention is not only a practical example of how to commercialize extension services, but has also played a role in the development of policy to support the sector.

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#### **ACCOMPLISHMENT 6: KENYA BDS AS A DRIVER OF POLICY IN COMMERCIAL BUSINESS SERVICE PROVISION**

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As the grafting and pruning service providers matured in their operations, individual providers decided to formalize their offering by organizing themselves into two associations – a critical step to professionalize as well as self-regulate services offered. To initiate the process, local facilitator IBL commenced discussions with the Ministry of Agriculture (MOA) to formulate an accreditation policy for the trained service provider. Part of this activity included development of a Code of Conduct for the associations, which were then given the mandate to accredit individual service provider, and take action against those who fail to adhere to an established code of ethics. As members of the association, service providers agreed to honor a uniform service price list, adhere to proper labeling, supply only KEPHIS certified grafting material from approved mother blocks, and “re-graft” should the initial service fail to take. Each



member of the association also agreed to possess an identification card to protect against fraudulent providers, as well as serve as a “quality vetting system.” For example, those providers that give sub-par services may be reported by the client to the service provider association. The Maragua District Agriculture Officer informed the service provider that the USAID Program was ahead of its time, and has provided an example to the government on how to privatize extension services.

For Kenya BDS, the intervention was an important achievement not only in development of a stand-alone services market, but as an example of how the Ministry of Agriculture assisted with the development of an accreditation policy for commercial extension services – services which are in turn provided, managed, and regulated through the private sector.

#### **ACCOMPLISHMENT 7: DEVELOPMENT OF AN INPUT SUPPLY MARKET FOR QUALITY GRAFTED SEEDLINGS AND CERTIFIED PLANTING MATERIALS**

Tree fruit crops are generally low-margin commodities, meaning a small-holder farmer makes money largely through volume as compared to price. To ensure the small-holder farmer is competitive, both within Kenya as well as the global market, Kenya BDS and collaborating lead buyers have been promoting the theme of “larger smallholders” (increasing per farmer tree count). Farmers have responded to this call by: 1) planting new improved varieties of seedlings; 2) sourcing quality scions to convert their indigenous variety crop into a higher yielding, disease resistant variety; and, 3) grafting improved scions on to indigenous root stock. Under all Kenya BDS market linkages programs, participating farmers are expected to source planting materials (seedlings) from certified commercial nurseries using their own funds. This increased demand has led to a surge of individual and group-level nursery operators in each of the tree fruit commodities.

In passion fruit alone, a total of 304 groups – and individual-level commercial nurseries have been established for grafted purple passion fruit. Many have already been certified by HCDA. In Mpeketoni, mango farmers have established 17 group and 16 individual nurseries comprising of both grafted mango seedlings and other exotic trees. For both avocados and mangoes, clean mother blocks and healthy planting materials have been a constraint, leading Kenya BDS to encourage both service providers as well as farmers to develop their own commercial nurseries. In collaboration with KEPHIS, detailed investigations were conducted with candidate farms that could serve as sources for clean scion materials.

#### **ACCOMPLISHMENT 8: EMERGENCE OF SUSTAINABLE COMMERCIAL MARKET LINKAGE SERVICE FIRMS**

Several donor programs have recently targeted group formation as a means of achieving economies of scale for small-holder farmers, as means for bulking of inputs as well as accessing the market. Unfortunately, many group formation and market linkage activities have been carried out as a direct service provision by donor programs, with no vision for sustainability. It is the opinion of Kenya BDS that, provided group formation and market linkage services demonstrate value for both the buyer and smallholder farmer, they can and should be provided by the private sector.

Kenya BDS has tested a number of commercial group formation and market linkage service models through locally contracted facilitators. Each began with a pilot intervention to demonstrate value to both smallholders and buyers before scaling-up and commercialization. During the project two models have emerged in both sub-sectors. The first may be described as an “*in-house*” model, where the lead firm has embedded the service directly as part of their core business in sourcing from smallholders. Kenya BDS tested this model with exporter Promasidor for the sourcing of Grade 1 Omena through women processors, as well as with Indu-Farm in the procurement of Grade 1 avocados for export and EAG in the procurement of horticultural crops for export.





Another model may be described as “outsourcing,” whereby the lead firm contracts an independent service provider to assume responsibilities such as group formation, production forecasting, grading and collection coordination, and maintenance of a quality management system. Through Kenya BDS, a number of independent service providers were registered as private companies to undertake this role, including Fineline Rural Reach, Ltd. and Agri Outlets Company. More than 10 lead firms (processors and exporters) are currently sourcing produce through this arrangement. Remuneration for these service providers is calculated by a percentage based levy on the sale of Grade 1 fruit acceptable by the lead firm.

It is important to note that Kenya BDS did not prescribe to a particular approach. Rather, the evolution of each group formation and market linkage model has been based upon the particular dynamics of the smallholder farmer (or fisher-folk) as well as preferred sourcing strategy of the buyer. Whichever the service offered, what matters is that the market linkage service is now sustainable.

#### **ACCOMPLISHMENT 9: COMMERCIAL UPTAKE OF RACK DRYING TECHNOLOGY**

The traditional method of processing omena (*Rastrineobola argentea*) involves sun-drying the fish on the ground for a period of several days. This rudimentary process often results in very poor quality, as the omena comes into direct contact with sand and shells, not to mention chickens and dogs that peck and walk over the product. The ground drying method also limits the ability for omena to properly dry, thus increasing the chance for aflatoxins and mold. Finally, the constant sweeping of omena on the ground by women processors to increase the speed of drying is ergonomically harsh on their lower backs, and also decreases the quality of the fish.

During the project a local rack drying technology was introduced to women omena processors. It was important however that the technology could be sourced through local materials, and cost-effective for the users. The racks consisted of simple locally available materials including wood and wire mesh. To develop a sustainable value chain and drive adoption of this technology through commercial incentives, Kenya BDS formed individual women processors into groups, and linked them with Promasidor, a prominent omena exporter based in the area.

Through Promasidor, the embedded rack-drying technology was provided to each Beach Management Unit as demonstration equipment. For those women processing groups willing to enter into a supply contract relationship, Promasidor provided the wire mesh and netting on credit, while the women constructed the wooden rack frames through their own labor and resources. Promasidor would also construct a fence around the racks for each of the groups to protect against theft and tampering by individuals outside of the Program. The exporter bought all Grade 1 Omena processed on the racks, at prices 25% - 30% over that traditionally offered by brokers. This was feasible as the quality produced was superior and suitable for export. In addition, the exporter would provide short-term credit for women to purchase Omena in the morning from fishermen, as well as collection, transport, and timely payment for the processed fish.

Technology adoption has been strong as it commercially benefits all parties concerned. The price premium, guaranteed market, and increased productivity stemming from the technology have created a demonstrator effect among women omena processors in Suba District.

#### **ACCOMPLISHMENT 10: FULL-SCALE ROLLOUT OF INNOVATIVE VALUE CHAIN FINANCING OFFERS**

Kenya BDS has piloted and ramped up a number of innovative value chain financing arrangements. As presented earlier, Kenya BDS facilitated the delivery of various spraying and agrochemical services to farmers by spray companies. In each of these arrangements, the cost of agrochemicals was financed by input suppliers for those farmers active in their operational areas. To address financing constraints, farmers in Mavindini production cluster were linked to the Mavindini Farmers Cooperative where they



access credit at favorable rates. SCODIP provided chemicals to farmers on credit, while K-Rep community bank extended credit of up to KSh 8, 000 per farmer with shares to buy farm inputs and pay for labor in their orchards. In the Matiliku production cluster, mango exporter Keitt Ltd., extended credit for agrochemicals to farmers that was deducted after selling their produce. As a result, an increase of 75% in Grade 1 production was noted in the midst of the drought season.

Perhaps the greatest achievement by Kenya BDS was convincing a large commercial bank to provide credit to smallholder farmers, an action previously unheard of in the avocado production zones of central Kenya. Managed by Kenya BDS facilitator Ideal Business Link (IBL), this program allows avocado farmers possessing supply contracts with lead buyers to apply for credit facilities at Equity Bank, with an assurance from the exporter that farmers' payments for their fruits will be channeled through their accounts at Equity Bank. With this assurance from the export companies (through signing of a Memorandum of Understanding) the bank is able to process farmers' applications within 48 hours, after which they issue an offer letter indicating the approved loan amount and repayment terms. Once farmers receive this offer letter, they then requisition spray services. Spray services are provided from a private company to coordinate the work of spray service providers developed under the Kenya BDS Program. The agrochemical spray services company then provides the services to farmers with each farmer signing an invoice for the number of trees sprayed. Each farmer group then signs an authorization to Equity Bank for the spray services company to be paid.

Through its own financing, the spray services company also bought boom sprayers and a van for transporting the various spray teams in the field. This has greatly enhanced efficiency, and now farmers are able to receive spray services per the recommended spraying cycle. With this consistency in spraying there are already noticeable improvements in quality and productivity of orchards, particularly since unlike other years, spraying commenced during flowering which has helped in reducing flower abortion. Equity Bank has already commenced extending this type of credit facility to farmers in different commodities.

## Collaboration

During the project life span, Kenya BDS undertook a number of joint activities with USAID partners, donors, and GOK bodies to leverage field experience and maximize use of limited resources.

### USAID, US GOVERNMENT, AND SO7 PARTNERS

Collaboration has continued throughout the project with the Strategic Objective 7 partners. Kenya BDS is an active participant in the Horticulture Task Force with the Kenya Horticulture Development Program (KHDP). The Program also organized and hosted all the technical staff from ACDI/VOCA-Africa on a one day field visit of Kenya BDS avocado market linkage activities in Central Kenya. Kenya BDS collaborated with the Farmer-to-Farmer Program in providing assistance to Av-Oil Industries, one of the major avocado processors based in Kenya. The project also worked closely with Kenya Access to Rural Finance (KARF) to promote micro-finance among collaborating farmer groups by encouraging "table banking" among its members for those groups not yet eligible for commercial credit.

Kenya BDS collaborated with the USAID Microenterprise Office by presenting at the global Learning Conference titled *Microenterprise Development in a Globalizing World*. Hosted by USAID in Washington, D.C., the event brought together leading practitioners from around the world to examine the impact of globalization on emerging markets, microenterprise development, and poverty alleviation. Kenya BDS presented in a session titled *Enhancing MSE Competitiveness in a Globalizing World*, where our experience in creating and sustaining competitiveness for small producers in the avocado value chain was featured. Kenya BDS also continued collaboration with the USAID Practitioner Learning Program in exploring *Strategic Alliances for Financial Services and Market Linkages in Rural Areas* through local



facilitator Resource Mobilization Center (RMC). Through Kenya BDS and SEEP, RMC developed rural based service providers to enhance savings among fisher-folk, while sensitizing and providing supply-side assistance to formal financial institutions to service this previously ignored sector. The project also reported regularly to centrally funded USAID projects such as the Initiative to End Hunger in Africa (IEHA) and Accelerated Micro-Enterprise Advancement Project (AMAP).

Kenya BDS has been featured on Voice of America, and was also cited as a flagship project by Jacqueline E. Schafer (USAID Assistant Administrator) in her testimony before the Subcommittee on Africa, Global Human Rights and International Operations Committee on International Relations, U.S. House of Representatives, Washington, D.C. July 27, 2006.

Kenya BDS utilized the services of three Peace Corps volunteers in the field. Jason Kinker was based in Mbita and assisted with privatization and start-up of a commercial ice production plant. Jason Milliski was based in Meru and assisted small-holder farmers in passion fruit production and market linkages. In Thika, Andrew Miller assessed the management information system requirement of Kenya BDS avocado market linkage operations, while providing technical support in the design of an agrochemical loan program with Equity Bank. Unfortunately all three PCVs were evacuated during the post election violence and were not replaced.

#### OTHER DONORS

The Chief of Party of Kenya BDS founded and served as the Chair of the BDS Donor Working Group, a national body of donors and contractors implementing large BDS and value chain related programs. Members include the World Bank, DFID, IFC, SwissContact, Danida, USAID, JICA, UNDP, GTZ and EU, to name a few. The Group serves as an informal body to: coordinate field activities, vet future program design, share technical information, and provide references on local partners. The Donor Group also hosts an Annual National Conference which gathers over 150 donor practitioners from within Kenya and the East Africa region to share practical experience and discuss emerging trends in value chain facilitation and BDS market development.

Kenya BDS has served as an active technical content provider in mango, passion, and avocado farming for the interactive radio program *Mali Shambani*. The commercial venture was designed USAID Kenya BDS Program, and launched through FIT Resources with support from the DFID/DANIDA- funded Business Services Market Development Program (BSMDP). The Program provided information on farming techniques, inputs, quality standards, weather and seasonal issues, market prices and trends, business tips, land use, and financing opportunities to smallholder farmers. Each program also features a question and answer segment, whereby listeners can call (or text message) in and interact live with a featured expert panel. According to a recent report by the private local consulting group, Steadman Research, after KBC Kiswahili News, *Mali Shambani* was cited as the most listened to radio program by rural Kenya.

#### Mitigating the Impact and Spread of HIV/AIDS

The incidence of HIV/AIDS infection along the shores of Lake Victoria is the most significant in Kenya. High levels of alcohol consumption and sexual risk-taking behavior have resulted in particularly damaging effects for the fishing industry. Along the beaches of Lake Victoria at least two fishermen die every week due to HIV/AIDS related illnesses. Although not an area normally considered within the USAID/Kenya/ABEO portfolio, it is important to note that Kenya BDS has had a positive impact on empowering women, and lessening the spread of HIV/AIDS in the Lake Victoria Fish Sub-sector.

Through Kenya BDS support, 11 local service providers have been developed to offer savings mobilization services in Bondo, Kisumu, and Busia Districts. Their role is to raise the awareness among fisher-folk on the importance of savings, and provide training in business and financial management in anticipation that these fisher-folk will become potential savings clients in the future.

Financial institutions have also been assisted with developing specific financial products that meet the needs of fisher-folk. For example, SAGA's "Market Day Loan" provides women Omena producers access to short-term loans which are used to buy Omena in the morning from fishermen which they then sell later in the day. The loan is normally repaid the following day, providing low-wage earners a quick means of improving their income-earning activities. The Market Day Loan empowers women Omena processors by providing an alternative to the increasingly common practice of "sex-for-fish," a behavior which reinforces the transmission of HIV/AIDS.



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## GOVERNMENT OF KENYA

While policy formulation was not a core activity under Kenya BDS, the Program maintained close relations with GOK officials in both the fisheries and agriculture sectors.

In May 2003 Kenya BDS was appointed by the Minister of Labor and Human Resource Development to participate on a 14 member Task Force which was gazetted into law. In this capacity, Kenya BDS served as advisor to the Kenyan Government in setting the agenda for future programming and strategy design in support of the micro- and small enterprise sector. During this period Kenya BDS also contributed to development of the 2003 Session Paper on Development of Micro and Small Enterprises for Employment Creation and Poverty Reduction. In May 2007, Kenya BDS participated on the technical committee to review the Ministry of Trade and Industry's implementation plan for the Private Sector Development Strategy (2007-2012).

Through stakeholder meetings and vetting sessions, Kenya BDS was an active participant in development of the *National Fisheries Policy* Kenya Fisheries Policy as well as Strategic Plan for the sector. This included direct technical advice to the Director of Fisheries in support of development of the Kenya Fisheries Development Authority and a fish levy trust. At a broader level, Kenya BDS participated in the quarterly consultative sessions organized by the Ministry of Fisheries, presided over by the Permanent Secretary, which provided an opportunity for Kenya BDS, KDDP, and USAID to discuss ongoing implementation of field activities with the Ministry.

At the field level, Kenya BDS has maintained a close working relationship with the Kenya Agriculture Research Institute (KARI) for the technical training of over 100 grafting, pruning, and spray service providers. For each of these technical areas Kenya BDS utilized the training facilities of KARI/Thika to host residential training courses for future service providers. The 6-day courses covered agronomic and physiological aspects of mangoes and avocados, as well as technical skills in grafting, pruning, and spray services. As a national research institute, KARI also provided excellent demonstration farms which enabled participants learn how to practically manage an orchard. In each of the market linkage activities related to passion fruit, avocados, and mangoes, Ministry of Agriculture extension officers have proven invaluable in assisting with the initial identification of new production zones, hosting sensitization barazas, and even providing technical training when available at weekly group meetings. Kenya BDS has also collaborated closely with KEPHIS and HCDA in the certification and registration of input suppliers. During the project, over 20 farms were inspected and certified by KEPHIS as sources of healthy planting material (scions). Over 30 group and individual commercial nurseries have been developed under Kenya BDS for passion fruit and avocado farmers.

In the fisheries sub-sector, the activities of Kenya BDS were featured in the *Samaki News*, the official magazine of the Department of Fisheries of Kenya. In a feature article on Kenya BDS activities, the magazine included a message from Permanent Secretary Dr. Jacob Ole Miaron where he stated the “*USAID funded Kenya Business Development Services Program has spearheaded the ‘Fisheries as a Business’ program in parts of Lake Victoria, with delightful gains some of which include the unprecedented establishment of beach banks.*” On the ground Kenya BDS has worked closely with the Suba-based Fisheries Health Inspector to achieve HACCP certification for Promasidor, a local Omena exporter. Close collaboration also took place with the Fisheries Department to design a smallholder aquaculture production cluster activity in Busia and Vihiga Districts. This entailed a series of visits with the Fisheries Director, Kenya BDS, and USAID staff to the Sagana research and extension site, Moi University's aquaculture demonstration farm in Eldoret, and the Wakhungu Demonstration farm in Busia District. Kenya BDS eventually designed a program based upon these visits which incorporates joint implementation with the Fisheries Department. Recently the local facilitator, WMG has been utilizing the services of a Ministry fish expert to extend caged-fish farming technologies to nascent fish-farmers.



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## Gender Mainstreaming

Kenya BDS recognized that when income is increased among women, the overall welfare of a rural household is typically enhanced. It is also recognized that equitable decision-making at the rural household is critical for maximizing use of productive resources, which directly relates to overall competitiveness at the producer group level. To ensure that the needs of rural women are appropriately integrated, Kenya BDS institutionalized gender into all program interventions by incorporating gender considerations as a requirement in the tender evaluation criteria. On average, from 30-40% of targeted beneficiaries benefitting from Kenya BDS programs were women.

Kenya BDS implemented two interventions exclusively designed to mainstream women in targeted value chains. It is important to note that in each of these programs, Kenya BDS was not artificially creating employment or business roles for women. Rather, the interventions targeted women in their traditional value chain functions, empowering them by adding value to their traditional products through simple technology, while linking them directly with premium markets. This is the essence of mainstreaming. The interventions were:

1. *Omena Market Linkages* – The Program targeted more than 600 women Omena fish processors in Suba District. Through the introduction of rack-drying technology and facilitation of supply contract with leading exporters, women achieved increased incomes through value-addition and access to a Grade 1 market.
2. *Development of a Commercial Nile Perch Fish Skin Industry* – The Program targeted over 300 women who added value to a previously classified waste product – Nile Perch fish skin. Through downstream commercial linkages with industrial fish processors, artisanal women processors were able to access the hides and preserve them with a wet-salt preservation technique before sale to select tanneries.

## Environmental Compliance

Kenya BDS has institutionalized a number of activities to ensure environmental mitigation measures are met. Most important are the evaluation criteria in Kenya BDS tenders requiring an environmental impact plan, as well as offering evidence that the proposed intervention takes the necessary steps towards minimizing any foreseeable negative impact on the biophysical environment. Kenya BDS has also carried out three interventions that have a specific objective of mitigating environmental impact.

1. The grafting and pruning activity is a pro-active means of integrated pest management for smallholder avocado and mango farmers. By grafting to more disease-resistant avocado varieties such as Hass, a smallholder is lessening the amount of agrochemicals required to protect a tree. By accessing commercial pruning services the farmer is opening up the tree to air and sunlight while lowering the potential for pest and disease outbreak. These practices, coupled with simple field-clearing and application of organic fertilizer, have been taught to farmers under the Kenya BDS program, resulting in over a 50% increase in productivity and yields.
2. During analysis of the Lake Victoria fish value chain, it was revealed that the declining stocks of Nile Perch represented a significant threat to future sustainability of the industry and employment in the region. Illegal fishing gear and methods such as gill-net fishing commonly applied within the lake are largely responsible for this over exploitation. To overcome this constraint, Kenya BDS launched a program to promote the more environmentally-friendly method of long-line bait fishing through catfish fingerling pond cultivation. Long-line fishing is a technique which utilizes catfish fingerlings as live bait. This method not only avoids the use of undersized gill nets, but due to the size of bait (3-5 grams per fingerling) only the larger-sized fish are sustainably harvested.



3. Stocks of tilapia have equally been threatened in Lake Victoria through similar gill-net fishing. To mitigate this environmental impact while preserving the industry, Kenya BDS worked with nascent tilapia farmers in two ways:
  - a) It issued a tender to develop commercial tilapia cage culture technology. The program targeted the areas of Nyeri north, Nyeri south and Kirinyaga Districts of Central Province where over 85 dams are in existence; and,
  - b) It expanded technology through intervention fund facilitator Moi University to assist cat fish farmers to also raise tilapia for the local Lake Victoria market.
4. Through its Intervention Fund grant to Kenya Fish Processors and Exporters Association (AFIPEK), Kenya BDS assisted in the self-regulation of the Nile Perch industry on the shores of Lake Victoria by limiting the size of fish caught by local fishermen and processed by the Industrial Fish Processors- the “Big Fish” program. This effort is also an example of environmental protection which also serves as a Public-Private Partnership.

### Public/Private Sector Partnerships

Kenya BDS facilitated several public/private sector partnerships that had a meaningful effect on the rural MSE. Some of the more notable partnerships are as follows:

1. *AFIPEK* – This local NGO, working in collaboration with the Ministry of Fisheries Development, has negotiated a Memorandum of Understanding with all of the Industrial Fish Processors (IFP) in Kenya that process Nile perch from Lake Victoria area to limit the size of fish that are processed in order to protect the environment and sustain the industry. The initial size is limited to fish over 40 cm in length gradually increasing to a minimum size of 50cm. Plant inspections have begun with beach site inspections to begin soon after the fisher folk have been sensitized to the need for this self-regulation. The Ministry will do legal enforcement of both plants and beaches after AFIPEK has completed its education program.
2. *Al-Pharama Tanneries and the East and Southern Africa Leather Industries Association (ESALIA)* – As a program facilitator ESALIA played a meaningful role in developing a commercial relationship between Al-Pharama Tanneries in Athi River and women Nile perch fish skin processing groups in Nyanza Province. By working in partnership with the tannery, ESALIA has assisted women realize standing orders of over 1MT of hides per week.
3. *Ideal Business Link and Ministry of Agriculture* – As a facilitator Ideal Business Link was successful in developing 60 grafting and pruning service providers who then organized into two professional associations for self-regulation. To professionalize their service offering the association members developed their own “code of conduct” self-regulation policy which was used to accredit individual service providers as well as take action against those who fail to adhere to an established code of ethics. The policy is now recognized by the Ministry of Agriculture, and serves as an interesting example of how private sector providers can partner with government to formalize their service offering and achieve accreditation.
4. *Local facilitator* – IBL was also instrumental in achieving key partnerships for the development of agrochemical spray service providers. Over the past year close collaboration took place with KARI on the proper handling and application of agrochemicals, as well as with the GOK for the accreditation and licensing of agrochemical storekeepers.
5. *Moi University and Ministry of Fisheries Development* – The Department of Fisheries and Aquatic Sciences at Moi University has partnered with the Fisheries Department in developing small-holder aquaculture in Western Kenya. Moi University provided the technical training in pond management and enterprise budgeting, while the Fisheries Department through the Wakungu Demonstration Farm



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provided practical training through demonstration in both construction as well as propagation of fish seeds. Unfortunately Moi University collaboration ceased during the Post Election Violence when its facility and staffed were attacked. Work never resumed and this phase of Kenya BDS came to an early close.

6. *Just Juice and KARI Kithoka Demonstration Plot* – With land donated from Just Juice, Ltd. (a local juice processor), and the technical and material inputs provided by KARI, the Kithoka site represents the success that may be achieved through public/private partnership. During a visit to the Kithoka Site, Dr. Macharia Gethi, Director of KARI/Embu, remarked “The Kithoka site has emerged as an important venue to assist farmers in two areas critical for passion fruit production – extension services and quality seedlings. It ‘tells all’ to farmers.” U.S. Ambassador William M. Bellamy also cited the importance of this partnership upon his visit, which had trained over 2,500 smallholder farmers in passion fruit production.



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## IV. METHODOLOGY

### Introduction

Kenya BDS was the first USAID-funded activity to apply a value chain approach to market development. It combined the sub-sector approach with business development services market development and put this approach into practical implementation.

The Program first selected a value chain of high growth potential for rural MSE. The Kenya BDS team then conducted value chain analyses to provide a description of the sector, map out commercial relationships among market actors and channels, and break down costs of production to identify inefficiencies and opportunities for intervention. Through participatory mechanisms, such as focus group discussions, field questionnaires, and stakeholder vetting forums, the Program worked with industry actors to identify and validate critical bottlenecks and constraints within the value chain, and developed an upgrading strategy for increased industry competitiveness. This methodology assumed that business development services alone are not the solution; rather, when grounded with specific sub-sectors of high growth potential, BDS can assist MSEs to more effectively and sustainably produce and compete within product markets.

The Kenya BDS program was not assigned specific sub-sectors, rather it was mandated to select two to three sub-sectors during its lifespan. It was decided that an initial sub-sector activity would be selected and “phased in” during the first year in order for activities to be more manageable and flexible. Consequently the sub-sector selection process and the initial baseline survey were completed towards the end of the first year of project activities. The second baseline survey was conducted during the beginning of the second year.

In the context of the baseline surveys, a *MSE* was defined as “any commercial activity in the production, distribution, and marketing of tree fruit or fish products, provided that such a venture did not employ more than 50 workers.” Secondly, a *business service* referred to “any technical support service purchased at market price that helps an enterprise to add value to the original inputs.” Lastly, the Program defined a *business service provider* as “any entity or individual that provides a business service commercially.” An MSE was considered as “*accessing*” a business service if it is a party in any transaction-based relationship, either for fee or available as part and parcel (embedded) of a commercial arrangement.

In addition to the two baseline surveys, Kenya BDS used other tools to improve project impact. The project either contracted out or conducted a number of assessments and surveys to enhance delivery of BDS to its rural beneficiaries. A survey and tree census was conducted of the mango industry in October 2005. A gender assessment of the Program activities to establish gender-disaggregated baselines was completed in July 2006 to help the project track its results by gender. A EurepGap strategy assessment to prepare producer groups to higher phytosanitary standards was done in January 2007. Kenya BDS consultant Marshall Bear did a review of Market Linkage Brokerage (MLF) services in November 2007 and made recommendations on how to make the MLF more commercial and sustainable.

Kenya BDS began with sub-sector identification; development of tools and questionnaires necessary for a research oriented assessment; value chain analysis; and, identification of supply-chain constraints and relevant business service opportunities along the value chain to overcome the constraints. As a part of this work, the team approached the stakeholders to provide qualitative and quantitative information, allowing the team members to identify and prioritize constraints to production and possible interventions to address these obstacles and identify commercial business opportunities. Once these steps were accomplished, Kenya BDS solicited assistance from local firms by issuing tenders of requests for technical assistance to address these constraints.





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## Approach to the Work

As a consequence of its flexible design, under its methods of work used Kenya BDS implemented on-the-ground project activities in 2002 and 2003 to select target industries. The Program created a sub-sector selection team which conducted brainstorming sessions to develop key criteria to be used to evaluate and select sub-sectors which would have the greatest potential impact upon potentials for outreach and growth. The initial Activity Status Report used the following criteria to pare down the 21 possible sub-sectors to 7 and then down to 4<sup>2</sup>:

- Size of the sub-sector and the potential for increasing rural household incomes
- Potential for sub-sector growth
- Potential for linkages between other types of activities and the involvement of small enterprises or in the sub-sector
- Potential for positive synergies with donors and GOK policies and programs
- Potential for multiplier effects within the economic sectors.

Based upon its sub-sector selection findings, Kenya BDS decided to work in the value chains of two primary sub-sectors: tree fruits and Lake Victoria fish. The tree fruit sub-sector included avocado and mango production and expanded into passion fruit and horticultural crops as market linkage firms recognized and expanded their business services. The Lake Victoria fish sub-sector included working in the value chains for fish pond husbandry, and adding value to the Nile perch and omena industries; it evolved to encompass caged fish farming in the Central Province.

### BASELINE STUDIES

The tree fruit sub-sector baseline study was completed in December 2003 and specifically achieved the following parameters for future impact monitoring in the project's target areas of Coastal, Eastern and Central Provinces:

- Determine the total number of MSEs currently accessing commercial business services
- Determine the total number of business service providers currently operating in Kenya in the BDS program target areas
- Identify and enumerate the total number of MSE producers lined with the commercial market.

The fish sub-sector baseline study was completed in February 2004. The specific objectives of the survey were to account for the total number of MSEs involved in the distribution and marketing chain of the sub-sector, specifically to develop a methodology and estimate the total number of MSEs in the Lake Victoria fish sub-sector. And also, to estimate the number of MSEs currently accessing commercial business services and the total number of business service providers currently operating in the sub-sector.

The baseline surveys were critical components of the Program's performance monitoring process and strategy. It provided USAID/Kenya, the GOK, and Emerging Markets Group, Ltd., with a reference from where to measure and report on results, against agreed targets and operational plans.

### MARKET INTERVENTION FUND

During the start-up period Kenya BDS issued tenders and awarded contracts, using the market intervention fund, to private sector and NGO partners active in the production and marketing of tree fruit.

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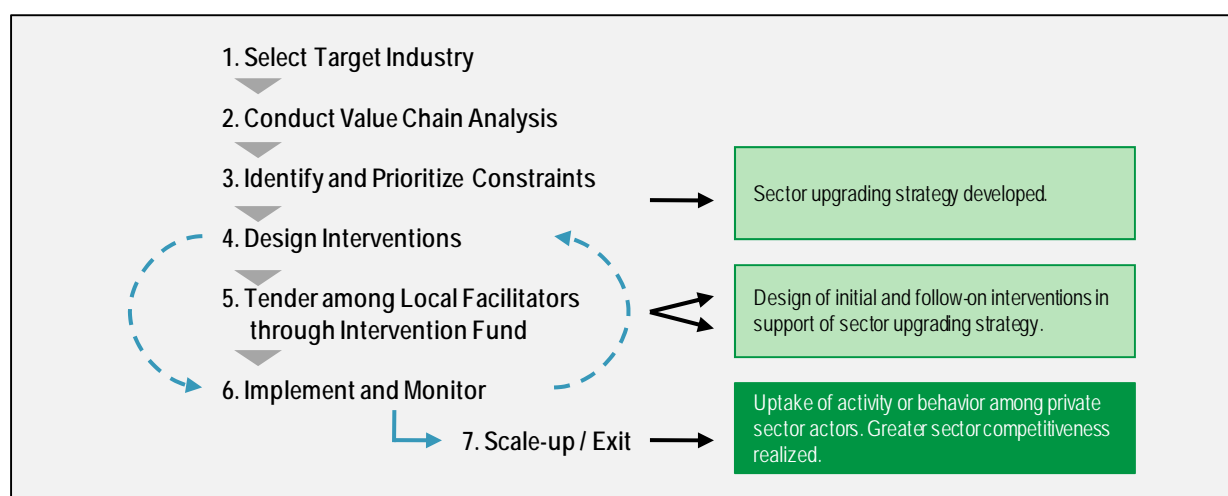
<sup>2</sup> See Activity Status Report, January 2003 and Sub-sector Selection Report, September 2003.



The contracts were designed to facilitate the development of sustainable business solutions that provided material inputs – agro-chemicals and improved seed and scion varieties, appropriate technology to upgrade products and production processes, business and skills training, and extension and information services. Several contracts promoted market linkages between smallholder producers and lead firm exporters through supply contracts and lead firm provision of embedded services, and encourage inter firm cooperation through organization of producer groups and provision of embedded services. Embedded services are products/services/solutions that are provided on a non-fee basis by one firm to another as part of their commercial transactions, ie. Buyers/exporters who offer pre-financing, technical advice, or inputs to their producers in order to ensure a quality product that meets market standards or input suppliers who provide training/technical advice to MSEs in the use of the product they sell in order to ensure correct/successful usage of the product.

Flexibility in implementation was one of the keys to the success of the Kenya BDS program, as Kenya BDS needed to be ready to assist value chain stakeholders to adjust to changing market conditions, as time went on. As such, the overall approach was kept flexible, as depicted in the following chart:

**Figure 1: Kenya BDS — Flexibility in Implementation**



## Methodology

Unlike traditional development programs, Kenya BDS did not operate from a pre-defined set of activities. The Program selected sub-sectors of high growth potential for MSEs, and identified market inefficiencies along the value chain. As critical constraints were identified, the Program facilitated the delivery of appropriate business services to rural MSEs on a commercial basis. As indicated above, flexibility was a critical element of the Program’s strategy, allowing it to design and introduce new interventions on an ongoing basis in response to changes in the market. A significant component was the Market Intervention Fund that financed a combination of supply- and demand-side interventions, as well as information dissemination techniques to stimulate commercial transactions. Through the IF, tenders were competed (and at times sole-sourced) among local facilitators. This maximized utilization of local resources and expertise; encouraging market sustainability and rural income generation throughout the value chain.

Field activities were largely characterized by pilot interventions that were limited to approximately a one year period of performance. Those interventions that were shown to be successful were ramped up and replicated, while those that failed to commercialize were modified or discontinued. Kenya BDS was not obligated to continue funding of an intervention that failed to achieve market sustainability.



Under the tender competition process, Kenya BDS also contributed to capacity development among the competing Kenyan firms and initially involved a little “hand holding” to teach the respondents to write offers which were responsive to evaluation criteria for both the technical and financial proposals. This capacity development support continued during implementation and reporting. Four local firms evolved from their consulting origins as a result of this support into market linkage firms working in the tree fruit sub-sector.

### **KENYA BDS FACILITATION ROLE**

Kenya BDS sought to facilitate value chain linkages by organizing farmers into producer groups that would be able to manage their affairs, maintain group synergy and ensure the delivery of fruits to the quality and quantity specified by the exporters and processors. The underlying strategy was that effective producer groups will ensure quality and quantity of fruit to the exporter/processor that will result in increased and consistent income to its farmer members.

The Kenya BDS project was designed to promote efficiencies and growth through the development of commercial business services and other broad facilitation activities. The approach was to award contracts on the basis of competitive bids, and market principles underpinned the Kenya BDS approach. The project did not cover costs for spraying, other inputs, or extension services, or subsidize producers in other ways. Nor did it inform producers about the prices at which exporters sell. While some smallholder participants thought that Kenya BDS would be a more active advocate for them in getting better prices, project staff continually emphasized that this is the role of the market and any interference would distort the market. The litmus test was if the smallholders were better off after the intervention than before. Kenya BDS needed to play a very business-like role, with a goal to diversifying market options and promote competition, and to not become embedded in the value chain.

### **SERVICE PROVIDERS**

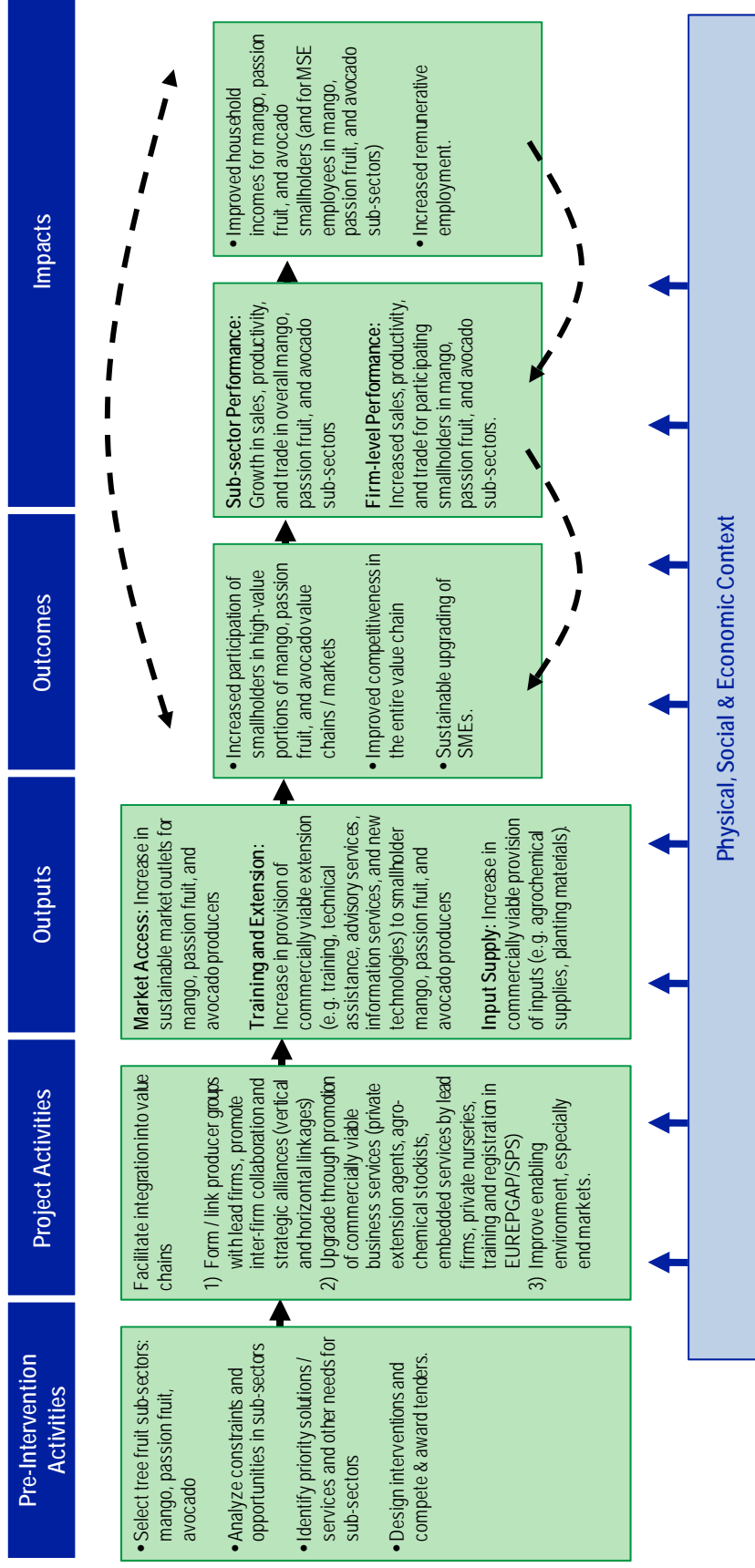
During the project, Kenya BDS defined a *service provider* as “any entity that provides a business service commercially”; meaning it charged a fair price for the services and was economically sustainable in its provision of the services. It encouraged private service providers (SP) to offer extension services and strengthen the farmer groups, working through the MLF. The SPs organized training for farmers to see farming as a commercial business and helped link the groups to input suppliers and financial institutions. For example, Kenya BDS supported a grafting and pruning program with local facilitator Ideal Business Link (IBL) since April 2005. This program was aimed at increasing the availability of commercial service providers in top-working, grafting and pruning among mango and avocado farmers in the project area and has resulted in the creation of independent, sustainable service providing firms as well as the majority of the groups opening bank accounts and even obtaining annual production loans.

### **KENYA BDS CAUSAL MODEL**

As a general picture of how the Kenya BDS Program was conceived and managed, Figure 2 depicts the causal model that was developed during the design stage, and then updated during implementation. The model breaks down the Program by Activities, Outputs, Outcomes and Impacts. The causal model assumes that project facilitation activities lead to commercially viable solutions to address constraints in the tree-fruit and Lake Victoria fish value chains. This leads to overall competitiveness resulting in sustained access to services, increase MSE income, and overall industry. This model has subsequently been used by at least one of the market linkage firms to manage their entry into non-Kenya BDS sub-sectors.



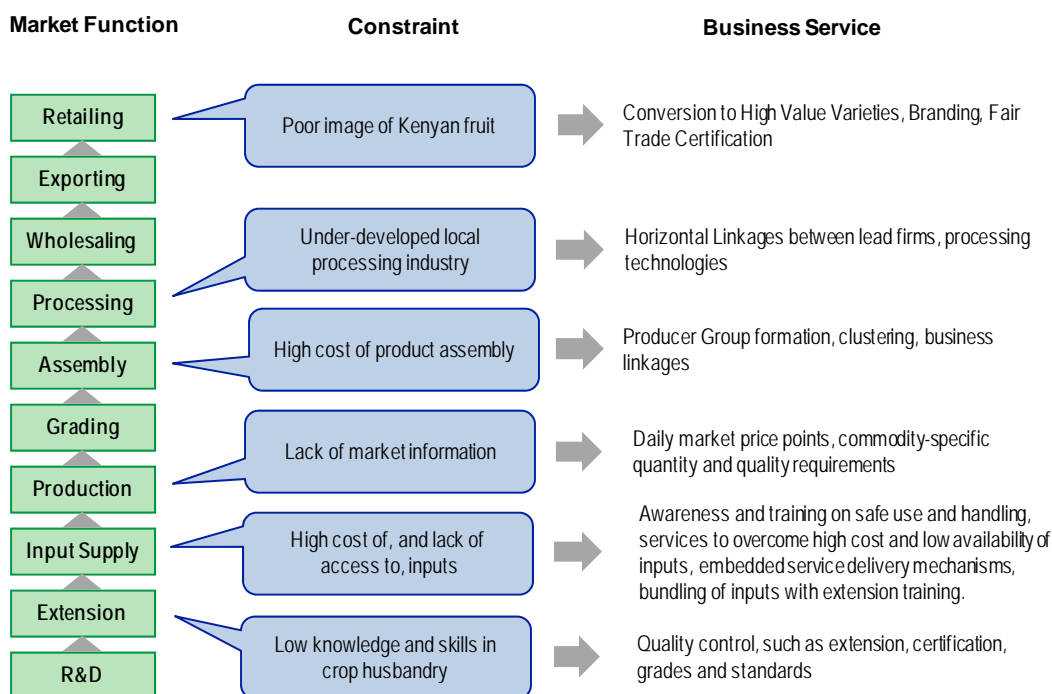
**Figure 2: Causal Model for Kenya BDS**



## TREE FRUITS

The figure below is from the 2005 *Assessing the Impact of Kenya BDS and HDC Projects in the Tree fruit Value chain: Baseline Research Report* and shows the range of activities undertaken to address constraints in the tree fruit sub-sector.

**Figure 3: Constraints and Corresponding Business Services in the Tree Fruit Sub-sector**



The figure below is from the same report, and shows the range of activities undertaken under the Kenya BDS tree fruit contracts to address opportunities identified for business services to address constraints in the value chain.

**Figure 4: Activities under Kenya BDS Tree Fruit Sub-sector**

Input supply	→	<ul style="list-style-type: none"> <li>Facilitate the provision of inputs</li> <li>Establish nurseries</li> <li>Establish a credit facility link between agrochemical distributors and stockists</li> <li>Develop a monitoring system to inform manufacturers and stockists on consumer trends</li> </ul>
Extension and training	→	<ul style="list-style-type: none"> <li>Improve commercial extension services</li> <li>Create farmer-led extension teams</li> <li>Launch information campaigns</li> <li>Train agrochemical stockists in advisory services and business management</li> <li>Raise farmer awareness on safe use of chemicals</li> </ul>
Market access	→	<ul style="list-style-type: none"> <li>Facilitate market linkages</li> <li>Improve market information through SMS technology and trading floors</li> <li>Establish collection sites</li> <li>Facilitate improved transportation</li> <li>Facilitate brokerage workshops</li> </ul>



Inter firm cooperation → Form and build capacity of producer groups

**Avocado:** Kenya BDS worked in two sub-sectors of the avocado industry: fruit for export and fruit for oil.

In 2003 the Program negotiated a memorandum of understanding with East Africa Growers (EAG), a large horticulture export firm in Kenya, to link with avocado producer groups in two locations in Central Province. In the first year, Kenya BDS mobilized 803 avocado farmers who organized producer groups and, with the help of a facilitator contracted by Kenya BDS, negotiated a contract with EAG to supply avocados that met agreed upon export standards. EAG provided embedded spraying services, graded the fruit, and transported it to their warehouses or to oil processors. Group members had been trained in the application of manure and fertilizers, pruning and orchard hygiene to upgrade the quality of their fruits. Near the end of the first year, Kenya BDS mobilized an additional 283 avocado farmers in 10 groups in several new locations. At the survey site in Kandara, EAG activities with avocado groups included:

- EAG, with Kenya BDS support, initiated the organization of avocado producer groups.
- Contracts were drawn up between the producer groups and EAG. The producer groups agreed to sell exclusively to EAG, to upgrade their avocado production, and to follow a good agricultural practices protocol.
- EAG discouraged brokers from buying fruit from its cooperating farmer groups.
- EAG purchased avocados at a negotiated price, provided spraying and grading services for a fee deducted at the time of sale, transported fruit to their warehouse in Nairobi, and paid farmers through their group accounts.
- Kenya BDS encouraged the revival of a processing factory that would buy lower grade fruit to process avocado oil and promoted a linkage between EAG and this factory.

During this time, several market changes were observed: Avocado brokers became less active in the area since the contractual agreement was initiated. EAG met with the brokers (who they also bought from) and asked them not to buy from group members in this area. After the first year, some of these producer groups worked with another lead firm, Kenya Horticultural Exporters (KHE). Farmers began basic pruning and spraying and negotiated contractual arrangements with KHE. Later on Indu-Farm (EPZ) Limited also began working with avocado farmer groups because they had better quality fruit. Production and sale of avocados was very low prior to the EAG initiative. As quality, quantity and reliability of supply improved, avocado sales volumes increased dramatically along with the prices received by producers. This was a critical impact, as avocado income was almost nil at the beginning of the project. Kenya BDS handholding activities promoted information flows, built trust, and forged linkages between the exporters, MLF and producer group members, between training and extension workers and producer group members, and among producers themselves.

**Mango:** Kenya BDS worked with four partners to develop the mango value chain. SITE was a local NGO supported by Kenya BDS. In December 2004 the quantitative survey was conducted and SITE worked with groups of farmers in eight mango production clusters in four districts of Central and Eastern province. Its work with farmers focused on building linkages with reliable markets and increasing the accessibility of business services to increase the quality and productivity of mango orchards. While SITE was able to get four exporters to establish direct linkages with farmers, few of the mango farmers in the groups benefited. Nevertheless, through these contracts, which often benefited only large farmers, small farmers were able to participate. Exporters made payments through the farmer groups' bank accounts, which provided a more secure means of payment for the farmers. Unfortunately the margins paid by



exporting firms was not significant and most mango producer groups side-sold their harvests to brokers who paid upon collection and sold the mangoes to meet in-country market demands.

**Passion Fruit:** Kenya BDS worked with Finline Rural Reach (FRR), who coordinated the whole program among the farmers while EAG provided embedded services in terms of input supplies and extension services to both the export and domestic market. This work began in October 2004 when the baseline research began. It took some time to get producer groups sensitized and organized in this area. Project activities included training group members in nursery establishment, land preparation and planting, orchard maintenance, and post harvest handling. They also focused on facilitating direct linkages with exporters through supply contracts; regular collections of fruit; and exporter-led technical advice and spraying for pest and disease management. The aim was to ensure high quality Grade 1 fruit, promote regular fruit collection and payment schedules, stable and guaranteed market prices, and prices that were higher than those paid by brokers. A central demonstration plot and nursery had been established with land donated from Just Juice, Ltd. and technical and material inputs provided by KARI – representing a public-private partnership. The site provides extension services and quality seedlings. Later on FRR undertook the responsibility for providing technical extension advice, thereby saving money for the farmer groups and developing greater loyalty.

#### Impact upon other Sub-sectors

Kenya BDS encouraged the market linkage firms to offer valuable business development services to its farmer groups to better improve both the profitability and sustainability of the groups and for themselves.

In the 2005/6 season, Sure Link assisted its farmer groups to plant and graft thousands of improved avocado cultivars to increase fruit quality and productivity. Unfortunately, it takes from 2 to 3 years for these young trees to produce quality fruit, meaning that neither the farmers nor Sure Link would be earning much revenue until the production level increased. In the interim, Sure Link sought ways to increase its revenue. It studied agricultural production constraints in the horticultural value chain and decided it was feasible to offer its business development services to horticulture farmers to address the constraints and increase the efficiencies and profitability of their on-going operations. Following the Kenya BDS causal model, Sure Link began by marketing its services to address farmer needs. Then Sure Link entered into supply contracts with the farmers and with the export firms, resulting in higher quality products and increased revenues for all three partners.

#### LAKE VICTORIA FISH

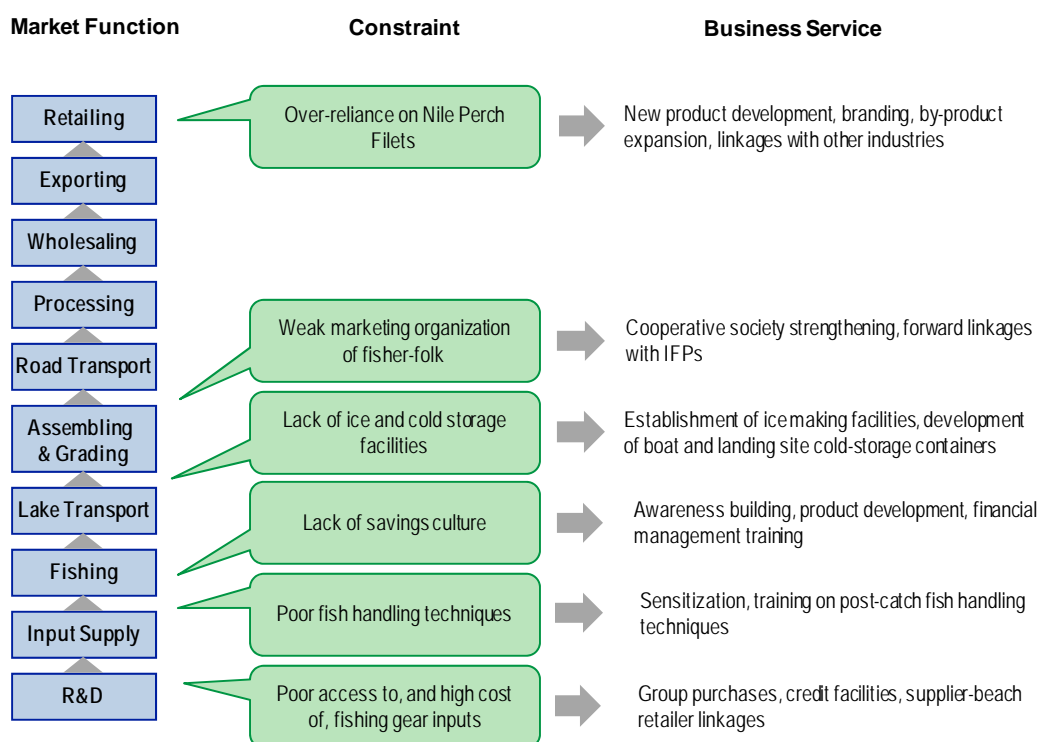
Figure 5, below, shows the range of activities undertaken to address constraints in the fish sub-sector.

Initial work in the Lake Victoria fish sub-sector identified a constraint with the ability of fisher-folk to access affordable, high quality fishing gear. Kenya BDS awarded an IF grant to Africa Now to address this need and the facilitator helped identify and develop 42 rural based fishing gear retailers and 6 wholesalers to offer their improved fishing equipment to local fisher-folk. These value chain stakeholders were actively linked through horizontal bulking arrangements and vertically integrated supply deliveries. Through these efforts a total of 2,500 fisher folk were able to access affordable fishing gear with increased efficiencies.

As access to credit was also identified as a major constraint, Kenya BDS awarded a performance contract to local facilitator Resource Mobilization Centre (RMC) which helped fisher-folk mobilize savings by sensitizing them on the importance of financial management, while providing supply-side assistance to local financial institutions such as SAGA-Thrift in product development. During the third year of the program, Kenya BDS savings mobilization efforts helped establish 10 beach banks with Saga-Thrift and K-Rep, reaching over 3,000 fisher-folk opening savings accounts for the first time. Sensitization efforts with commercial banks have been fruitful, as Equity Bank recently established a branch at Mbita Point following a sensitization tour by Kenya BDS. Family Bank and Cooperative Bank of Kenya also have expansion plans underway.



**Figure 5: Constraints and Corresponding Business Services in the Lake Victoria Fish Sub-sector**



**Nile Perch Fish Skin Processing:** One of the primary activities among fisher-folk men along the shores of Lake Victoria is fishing for Nile perch. The fisher-folk women are involved in processing and sales of the catches on the Beach Management Units near the landing sites. The BMU includes women who filet some of the Nile perch for sale. However the majority value-added to these by-products by processing the *frames* of the Nile perch after the filets are removed by the Industrial Fish Processors (IFP). These *frames* contain the fish heads and skeletons that are all deep fried and sold around the region as food. The raw skins are dried and used as fuel. Kenya BDS research indicated there was another market for Nile perch skins – if properly cured and tanned – as fish leather to European markets. Working through another Kenya BDS IF grant to a facilitator, ESALIA, the women groups were organized and trained to properly cure the fish hides to obtain the necessary quality for sale to Al-Pharama, the Nairobi-based tannery which converted the cured hides into leather for export and sale in Europe.

**Omena:** The other principle activity in the Beach Management Unit was women who processed the omena captured along the Kenyan shores of Lake Victoria. The processing of these small fish [*Dagaa*] by the fisher-women primarily involves consolidating the catches and drying them in the sun for sale to brokers. Before Kenya BDS most of these fish were of poor quality and were sold as animal feed. Working with one large broker, Promasidor, Kenya BDS organized 12 groups of women along the omena landing sites into commercially oriented MSE. In efforts to increase quality for exportation they were taught post-catch handling, drying, packaging, collection, grading and transportation. SAGA, a local micro-finance institution, also assisted the groups to obtain short-term credit used to buy daily catches. Promasidor purchased all of the top quality dried fish for export and sold lesser quality to the animal feed industry. The adoption of the omena rack-drying technology and market linkage arrangement with lead firm Promasidor expanded dramatically. By the end of Year 4, the Omena market linkage activity had expanded to 519 Omena women processors organized into 20 groups from 13 beaches. A total of 196 racks have been constructed on full commercial terms between the Women Omena processors and lead firm.





However, during the recent post-election violence the firm's office and storage facility were looted and a number of trucks were burned. Since then Promasidor has moved off of the Kenyans shores of Lake Victoria and the women's groups are selling locally while seeking new exporters.

**Aquaculture – Pond Fish Farming:** The initial purpose of fish farming was to provide cat fish fingerlings to Nile perch fisher-men to serve as bait for line-fishing. The fish pond farmers also decided to commercially raise tilapia as a commercial business to sell adult fish locally to meet market opportunities. Kenya BDS assisted in the supporting both commercial activities by working with interested fish-farmer groups, using IF to finance Moi University's extension work to provide technical training to interested farmers. The MOFD also provided technical expertise in training interested farmer clusters in fish pond construction and management and fish husbandry. Farmers built the dams and purchased the fish with their own resources. As word got out, many more farmers became interested and the aquaculture efforts expanded until Post Election Violence. During this period, the MOFD offices were looted and burned and the Moi University sites were destroyed and its staff was forced to flee for their lives.

**Aquaculture – Caged Fish Farming:** Over 90% of fish sold throughout Kenya originates in Lake Victoria region. Kenya BDS market research indicated that tilapia could be commercially grown in the Central Province in cages to supply the regional demand and to increase revenues for local farmers. It developed value chain tools to confirm its initial findings, using the following methods:

1. Conducted a baseline survey to identify potential production sites within the region
2. Sensitized communities on tilapia cage farming
3. Facilitated group mobilization, formation, strengthening and management
4. Provided technical training in cage culture
5. Developed business capacity of developed groups
6. Created market linkages.

To date steps 1 to 5 have been achieved, unfortunately due to the project completion date, step 6 could not be accomplished as the first fish will not be harvested until two months after the project is terminated.



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## V. RECOMMENDATIONS

Following are the key recommendations for continuing work in the Kenya BDS sub-sectors. Most critical among these are those activities in the fish sub-sector that were incomplete due to disruptions in implementation caused by the post election violence.

**Fish Sub-Sector:** Unfortunately the post election violence during the last year of the project affected many field activities in the fish sub-sector. Kenya BDS interventions in curing Nile perch fish skins, caged and pond fish production, and, implementation of the self-regulation of the Nile perch catch size were all affected by this violence, causing delays and short-fall in achieving project benchmarks. To assist each implementing partner to better reach some of its goals, Kenya BDS extended two of the grants financed by the IF: WMG's caged tilapia pilot effort and AFIPEK. An extension through November would assist the caged-fish farmers to realize their first tilapia harvest and would allow AFIPEK to complete the last part of its self-regulation training. Unfortunately, the Kenya BDS Program completion date of September 30, 2008, did not allow for a continuation of these activities.

We recommend that USAID continue to support these activities in some way, perhaps through the Fisheries CRSP, if at all possible. EMG, through the Kenya BDS program has received funding from the Nike Foundation, and will continue to support the tilapia production sub-sector in the Lake Victoria area as much as possible, especially as it concerns working with young women employed in the value chain.

Recent reports indicate a Nile Perch harvest drop of up to 70% per fishermen or fishing crew. This is due to the unprecedented increase in fishermen and the over-exploitation of available resources. The use of illegal-sized nets is rampant, as well as the lack of effective measures to enforce the fishing ban to allow for stock replenishment. Less than half of the IFPs exist in Kenya as compared to 10 years ago, and those still in Kenya are now operating at 35% capacity. We recommend that USAID employs a portfolio of interventions to conserve the declining fish stocks. These may include additional promotion of fingerling for long-line bait, sensitization and enforcement on illegal-sized nets, and continued support to AFIPEK in self-regulation in slot-size monitoring as mentioned earlier.

Finally, efforts are needed to promote alternative economic activities to remove pressure off the Lake to complement declining catch as well as offset lack of income during the fishing ban period. Further development of alternative higher value horticulture industries such as legumes, tomatoes, kale, spinach, and onions should be explored, as well as poultry, dairy-goat, and aquaculture.

**Tree Fruit Sub-sector:** Three of the MLF work primarily with avocados and one with passion fruit. One of the lessons learned is that serving as a market linkage solely for avocados is not cost-effective given the short season and the lack of intensive cultivation of the trees by MSE. Kenya BDS has recommended to each of the MLF to expand their market areas and/or to diversify into other crops, such as passion fruit and horticulture in order to become more sustainable and to better assist their farmer groups increase their revenues and reduce their risks. All farmers in production groups working with Kenya BDS grow a variety of crops extensively and therefore have multiple harvests with multiple opportunities to increase their revenues if the farmers knew how to more effectively grow, harvest and market high quality crops for both the local and export markets. An example is to provide improved tissue culture and cultivation techniques to the large number of farmers growing bananas in the central region, so that they can meet the demand of the marketplace for this product. In addition, if these farmers received some assistance to improve their production quality and quantity, they could sell to processing plants such as Sunny Processors, for transformation into exportable puree throughout the year, thereby increasing their revenues and reducing their financial vulnerabilities.

In addition, if the producers could follow through with their Kenya BDS phytosanitary training and tracking systems and obtain GlobalGap certification, there would be a much stronger market and higher



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prices for their produce. Some of the MLF are working with interested producer groups and are actively seeking commercial credit to finance the efforts necessary to obtain certification. Whatever support other USAID or donor projects could offer as business plan development or access to commercial financing facilities, for example, would facilitate this effort.

**Horticulture:** Sure Link expanded into exportable horticultural crops when it realized it could not survive solely servicing avocado farmers. The key to its success was working with farmers who were already growing the legumes for export and had access to irrigation. By providing technical support and representing the farmer groups in their dealings with the export firms, Sure Link was able to increase production, provide the exporters with a year around supply of high quality produce and provide a steady, year around source of revenue for the farmers and itself. Kenya BDS recommends that more MLF diversify into the horticultural business with farmers who have the resources are pre-disposed to intensive agriculture.

**Market Linkage Firms:** Kenya BDS has been working with four principal MLFs during the past few years. Based upon a recent consultancy conducted by J. Mantle<sup>3</sup>, each of these firms was challenged from a commercial viability perspective given the seasonality of their service offering. The firm's final report made suggestions on how each firm could improve its sustainability and Kenya BDS encouraged each firm to develop a new business plan to become self-sufficient by expanding their sources of revenue. The objective was for each firm to develop a business plan that could be used to apply for lines of credit with local commercial lending institutions.

**Service Providers:** Kenya BDS has provided service providers in the fruit sector with equipment to provide pruning and spraying services on a commercial basis to tree and passion fruit farmers, working through the market linkage firms through the Intervention Fund. We recommended formally transferring ownership of this equipment directly to these service providers rather than renting out the equipment to them, as we have found that when these small entrepreneurs have ownership of the equipment they take better care of it.

**Finance and Commercialization:** The project has made some progress in encouraging the various producer groups to think of farming as a business, keeping records of their expenses and to orient them to the concept of commercialization and making a profit. We recommend that cooperating MLF and export firms continue to encourage the groups to improve their record keeping and commercial focus.

Kenya BDS has also made progress in encouraging most of the producer group members and the organizations to open and actively maintain bank accounts. We recommend that the producer groups approach the banks which hold both their group saving and checking accounts as well as those of their members and seek short-term and longer term credit.

To date none of the market linkage firms have finalized business plans or obtained credit from commercial lending institutions. We recommend that each MLF complete the revisions of their business plans, as suggested by J. Mantle, and apply for commercial credit to expand the profitability of their offering.

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<sup>3</sup> J. Mantle presented written reports to each of the four MLF containing their proprietary information with recommendations on improvements to their financial and management structures. The firm made oral reports to each firm as well as to USAID/Nairobi and Kenya BDS in April and May 2008.



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## **VI. KEY LESSONS LEARNED**

Below we present the key lessons learned from the Kenya BDS Program. In addition, we have annexed a longer list of lessons and take-aways in Annex B.

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### **MAINTAIN A FOCUS ON THE ENTIRE VALUE CHAIN AND ON END MARKETS**

Traditional MSE projects direct all support to targeted beneficiaries – the MSE or smallholder farmer. It is important to realize that interventions may be required at all levels of the value chain in order to remove bottlenecks or inefficiencies. Unless there is an end market demand or the lead firms are competitive, there will be no “market pull”.

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### **FLEXIBILITY IN PROGRAM DESIGN AND DYNAMIC MANAGEMENT OF VALUE CHAIN IS CRITICAL**

Markets are dynamic and therefore require structures and processes within a project to be market responsive. The ability to read and respond to opportunities and constraints in the market is critical. A centralized pool of funding as well as dynamic management is important.

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### **IDENTIFYING INCENTIVES IS NECESSARY FOR UNDERSTANDING MARKET BEHAVIOR**

When designing for sustainability, it is critical to identify the incentives among market actors. This is necessary to understand how and why decisions are made, which directly shapes the nature of the interventions. Question whether activities are creating incentives for innovation or if they are stimulating competition or collaboration within the chain. Ensure the interventions do not create disincentives for change by introducing market distortions or artificial subsidies.

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### **STAKEHOLDER BUY-IN AND INDUSTRY OWNERSHIP IS CRITICAL**

Ownership and buy-in among all value chain actors is critical for success. Ownership can be measured through the level of investment or resources committed by key actors in support of the activities. Unless key members of the value chain share the same vision for competitiveness or are willing to invest, the intervention of a third party will have little impact upon improving competitiveness.

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### **LEVERAGE LEAD FIRMS AND BUY-DOWN RISK TO STIMULATE MARKET INNOVATION**

Donors increasingly realize the critical role lead firms in a targeted industry play, and how they must be leveraged to incorporate more MSEs into the value chain in a win-win manner. A project can play an important role in “buying down risk”, or cost-sharing pilot initiatives with a lead firm.

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### **EXPLOIT A PILOT OPPORTUNITY TO STIMULATE A MARKET RESPONSE AND CROWD-IN NEW ENTRANTS**

The approach of starting small to achieve success then to ramp and replicate has proven to be effective. This not only encourages experimentation and innovation, but it allows the implementers to manage risk.



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### **STRIVE FOR MINIMALISM AND “LIGHT TOUCH” INTERVENTIONS**

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Whenever possible try to intervene with the smallest amount of assistance necessary to stimulate market response. This minimizes market distortions and allows a project to expend resources in multiple areas of support.

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### **SUSTAINABILITY IS EVERYTHING**

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Interventions should always be grounded within a clear exit strategy. Quantitative objectives are easy to achieve. It is important to ask what is left behind and what is sustainable. What remains in place, and can replicate and grow on its own based purely upon market incentives of making money. During design, a clear exit strategy should be the guiding light.

**ANNEX A:  
ANNUAL PERFORMANCE MONITORING PLAN**



## Year Six Performance Monitoring Plan

As of Quarter 4 (July 1 – September 30, 2008)

SO7 PMP Indicators	Activities	Yr 5 Results	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Life of Project Targets
<i>IR 7.3 Increased Access to Business Support Services for MSEs</i>							
Total number of MSEs accessing commercial business services	-	73,251	74,082	74,182	74,281	74,326	65,235 MSEs
<i>IR 7.3.3 Non Financial Services Delivered Cost-Effectively Increased</i>							
Total number of Business Service Providers participating in the BDS Program target areas	Strengthening BDS provider capacity and supply	1,469	1,473	1,585	1,587	1,592	1,070 BSPs
Total number of MSEs aware of program assisted business services	Awareness creation among MSEs for business services	240,316	252,880	253,178	258,803	263,803	263,000 MSEs
Total number of MSE producers linked with the commercial market	Creation of commercial backward and forward linkages	23,859	24,400	24,475	24,501	24,501	22,250 MSEs
SO7 Process Indicators	Activities	Yr 5 Results	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Life of Project Targets
Approved subsector selection presentations and reports	Identification and selection of subsectors for BDS market development assistance	2	2	2	2	2	3 subsectors
Approved presentation and report on selected business services	Conduct initial analysis in each sub-sector to identify constraints and appropriate BDS	15	15	15	15	15	9 business service constraints
Approved intervention concept papers	Conduct initial BDS market assessment of identified business services and design corresponding interventions	48	49	50	50	50	48 intervention concept papers
Market interventions awarded and approved	Award market facilitation interventions	45	46	47	47	47	32 tenders awarded
IEHA OPIN Performance Indicators		Yr 5 Results	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Life of Project Targets
# of rural households directly benefiting from interventions		58,601	58,861	58,941	59,021	59,057	No targets identified
# of agricultural firms directly benefiting from interventions		50	51	54	54	54	No targets identified
# of male individuals who have received training		43,951	45,567	45,627	45,686	45,713	No targets identified
# of female individuals who have received training		14,650	14,714	14,734	14,754	14,763	No targets identified
# of producers' organizations, water user, trade, business associations, or CBOs assisted		810	810	810	813	813	No targets identified
# of women's organizations/associations worked with		162	162	162	165	165	No targets identified
# of public/private partnerships formed		31	31	32	32	32	No targets identified
# of technologies made available for transfer		22	23	23	23	24	No targets identified

*Note All figures are presented as cumulative*

**ANNEX B:  
LESSONS LEARNED**





## ANNEX B. LESSONS LEARNED

### Programmatic Lessons Learned

- Maintain an overall value-chain focus
- Flexibility in program design and dynamic management of value-chain is critical
- Identifying incentives is necessary for understanding market behavior
- Interventions should kick-start a market response
- Interventions should address specific value-chain constraints
- Interventions should be time bound
- Stakeholder buy-in and industry ownership is critical
- Leverage lead firms and buy-down risk to encourage market innovation
- Exploit a pilot opportunity to stimulate a market response and crowd-in new entrants
- Strive for minimalism and “light touch” interventions
- Maintain commercial signals; hide the donor, if possible.
- When targeting rural MSE, support market offerings must be simple, tangible and practical
- Sustainability is everything; interventions should be grounded within exit strategy.
- Some businesses will fail while others will succeed- let market forces take their course.

### General Lessons Learned from Facilitators

- Group development is important to better consolidate training and delivery of business services to farmers
- It is more effective to form new groups composed of members with a common interest rather than propose a new enterprise to an existing group since not all members will buy into the new product.
- Group methodology can yield result in bulking and delivery of services in the community
- Producer groups are effective units to ensure small-holders to produce the required quality and quantities for the market.
- Good enterprise around Avocado farming is most efficient when farmers have a minimum of 30 trees
- Farmers must invest in the business like any other enterprise
- The risks and challenges in tree farming are real and diverse and sometimes beyond the control of the owners of the enterprise
- Good agriculture practices can lead to increased yields
- All the aspects of the value chain require integrated services to ensure success of the enterprises
- Continuous training of farmers is mandatory for a successful project to educate them and to build loyalty but is expensive for the BDS firm.
- Most farmers diversify in order to mitigate against the myriad risks associated with farming
- The Market Linkage Firm needs to establish long and lasting relationship with farmers to build trust and reliable markets
- Exporters who are committed to build relationships with MLF and farmerws would obtain good supplies of quality produce
- The exporters are also in business and are strict with results also have alternative to their business portfolio
- Training farmers on savings mobilization and banking adds value to their production and to their livelihood



- Funding/loaning farmers on inputs require a clear product that can take into accounts the business failures
- Insurance on farmers' crop can be a valuable input in the value chain.
- Crop diversification is critical for subsistence farmers and is good for nascent MLF
- Financial literacy education and wealth creation are community based initiatives
- Rejuvenate orchards through pruning and grafting for real results in fruit quality and quantity and to build long term business relationships with the exporters
- Capacity building of the MLF is essential for them to survive as profitable enterprises
- Social entrepreneurship requires great support at the community education for them to embrace enterprise and best practices in managing their businesses. The farmers enterprise requires time to evolve into fully pledged enterprises that can demand the full focus of the farmers.
- Farmers who are determined to make their agricultural enterprise commercial will be challenged by the risks associated with the business especially those that are beyond their control such as calamities due to weather or diseases.
- Farmers need to be guided on how to absorb and appreciate risks that are likely in the farming enterprise.
- Processors tend to start with a low price when the supply is high and increase as the supply goes down, practicing the law of supply and demand at operation. Initially MLF found that when the prices increased, the processors did not raise prices as they did not believe the MLF would know. Now MLF know to negotiate better on behalf of the farmers.
- That during the peak of the delivery period for grade II avocados (mid June – July) the supply exceeds the capacity of the processors to crush. Processors often cancelled orders at the eleventh hour. The entry of a fourth processor which bought the excess fruit was a good development.
- That to be able to handle the collection centre effectively, there is need to negotiate with the farmers on a kind of partnership so that they do not ask for spot payment, in order to improve our cash flow.
- On commercialization, MLF learned it was possible to sustain the program on purely commercial lines and run it as a business in partnership with the farmers and the processors. Business linkages can be developed and sustained between farmers and the private sector in an open and transparent manner on a 'win-win' basis.

**ANNEX C:  
INDEX OF REPORTS**



## **ANNEX C. INDEX OF REPORTS**

### **Year 1 (1 October 2002 – 30 September 2003)**

- Quarterly Report 1
- Quarterly Report 2
- Quarterly Report 3
- Quarterly Report 4
- Annual Report
- Activity 1 Status Report: Sub-Sector Selection
- Activity 1: Overview of the Fruits and Organic Pesticides and Herbicides Subsectors
- Activity 2 and 3 Status Report: Sub-Sector Analysis and BDS Identification
- Activity 4 and 5 Status Report: Market Assessment of Business Services for the Tree-Fruit Sub-sector (Product Assembly, Quality Assurance, Input Supply)
- Activity 1: Selection of the Second Subsector for Program Assistance
- Pillar #2 Strategy Paper: Developing Linkages with Lead Firms in the Tree-Fruit Subsector
- PERSUAP
- KBDS Tree-Fruits Subsector Baseline Survey Report

### **Year 2 (1 October 2003– 30 September 2004)**

- Quarterly Report 1
- Quarterly Report 2
- Quarterly Report 3
- Quarterly Report 4
- Annual Report
- Activity 2 and 3 Status Report: Lake Victoria Fish Sub-Sector Analysis Report
- Activities 4 and 5 Status Report: A Business Service Market Assessment for the LV Fish Sub-Sector
- Baseline Survey Report Lake Victoria Fish Sub-Sector
- Activity 4 and 5 Status Report: Market Assessment of Business Services for the Tree-Fruit Sub-sector (Financial Brokering, Research and Development, Technology)
- Avocado Production Clusters in Maragua District
- Newsletter August 2004
- Newsletter September 2004

### **Year 3 (1 October 2004 – 30 September 2005)**

- Quarterly Report 1
- Quarterly Report 2
- Quarterly Report 3
- Quarterly Report 4
- Annual Report
- Newsletter October 2004
- Newsletter November 2004
- Newsletter December 2004
- Newsletter January 2005
- Newsletter February 2005
- Newsletter March 2005
- Newsletter April 2005
- Newsletter May 2005
- Newsletter June 2005
- Newsletter July 2005
- Newsletter August 2005
- Newsletter September 2005



#### **Year 4 (1 October 2005 – 30 September 2006)**

- Quarterly Report 1
- Quarterly Report 2
- Quarterly Report 3
- Quarterly Report 4
- Annual Report
- Mango Survey
- External Evaluation of Kenya BDS/EAGA Avocado Program in Kandara Division
- Commercial Ice Distribution Strategy and Key Program Activities for Mbita Ice Plant Kenya, Ltd.
- Gender Strategy Assessment and Baseline Identification
- Newsletter October 2005
- Newsletter November-December 2005
- Newsletter January – February 2006
- Newsletter March-April 2006
- Newsletter May-June 2006
- Newsletter July-August 2006

#### **Year 5 (1 October 2006 – 30 September 2007)**

- Quarterly Report 1
- Quarterly Report 2
- Quarterly Report 3
- Quarterly Report 4
- Annual Report
- A Comparison of Commercial Business Service Models to Sustainably Link Small-Holder Farmers to the Growth of Kenyan Tree-Fruit Exports
- Evaluation of EDC Omena Market Linkage Programme
- EurepGap Strategy Report
- Newsletter September-October 2006
- Newsletter November – December 2006
- Newsletter January – February 2007
- Newsletter March – April 2007
- Newsletter May-June 2007
- Newsletter July – August 2007

#### **Year 6 (1 October 2007 – 30 September 2008)**

- Quarterly Report 1
- Quarterly Report 2
- Follow-Up Review of KBDS Facilitation Activities and Market Linkage Brokerage Services and Facilitation of the Third National Conference of the BDS Donor Working Group
- Newsletter September – November 2007
- Newsletter December – February 2008
- Newsletter March – May 2008

**ANNEX D:  
CLOSE-OUT WORKSHOP PRESENTATION**



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# The Kenya BDS Program

## *Overview and Approach*

**Emerging Markets Group, Ltd.**  
**September 17, 2008**



## **BACKGROUND and OVERVIEW**



# CONCEPTUAL DESIGN

1. Original program design, joint initiative between USAID/Kenya and USAID/Office of Microenterprise.
2. Pioneering activity to test the subsector-based approach to BDS market development.
3. Period of performance: September 2002 – September 2007 (extended through 2008)
4. USAID funding level: \$5 million (extended to \$6 million)

# THE CONSORTIUM

1. Prime Contractor:



2. Subcontractors:

**Deloitte.**



**FIT Resources**  
Member of the FIT Network in Africa

3. Facilitators:

- Over 25 competitively selected local facilitators (universities, local consulting firms, parastatals, NGOs, independent consultants)

# OBJECTIVE AND RATIONALE

1. Objective: To increase **growth and income** among rural micro- and small-enterprises through increased access to business services
  - ✓ Access to **Markets**
  - ✓ Access to **Resources** and **Skills**
2. Causal Model: Project facilitation activities lead to commercially viable solutions to address constraints in the value chain. This leads to overall competitiveness resulting in sustained access to services, **increased MSE income** and **overall value chain growth**.



## THE APPROACH

# DYNAMIC VALUE CHAIN FACILITATION

1. Select Target Industry



2. Conduct Value Chain Analysis



3. Identify and Prioritize Constraints



4. Design Interventions



5. Tender among Local Facilitators through Intervention Fund



6. Implement and Monitor



7. Scale-Up / Exit



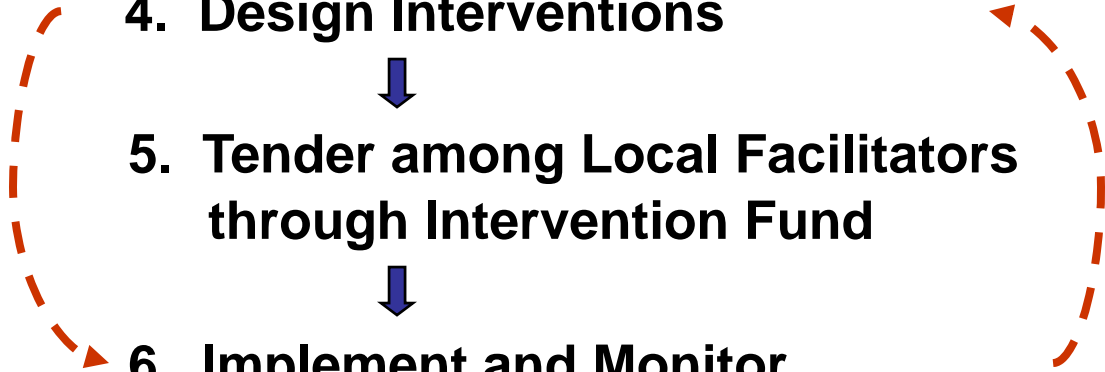
Sector upgrading strategy developed.



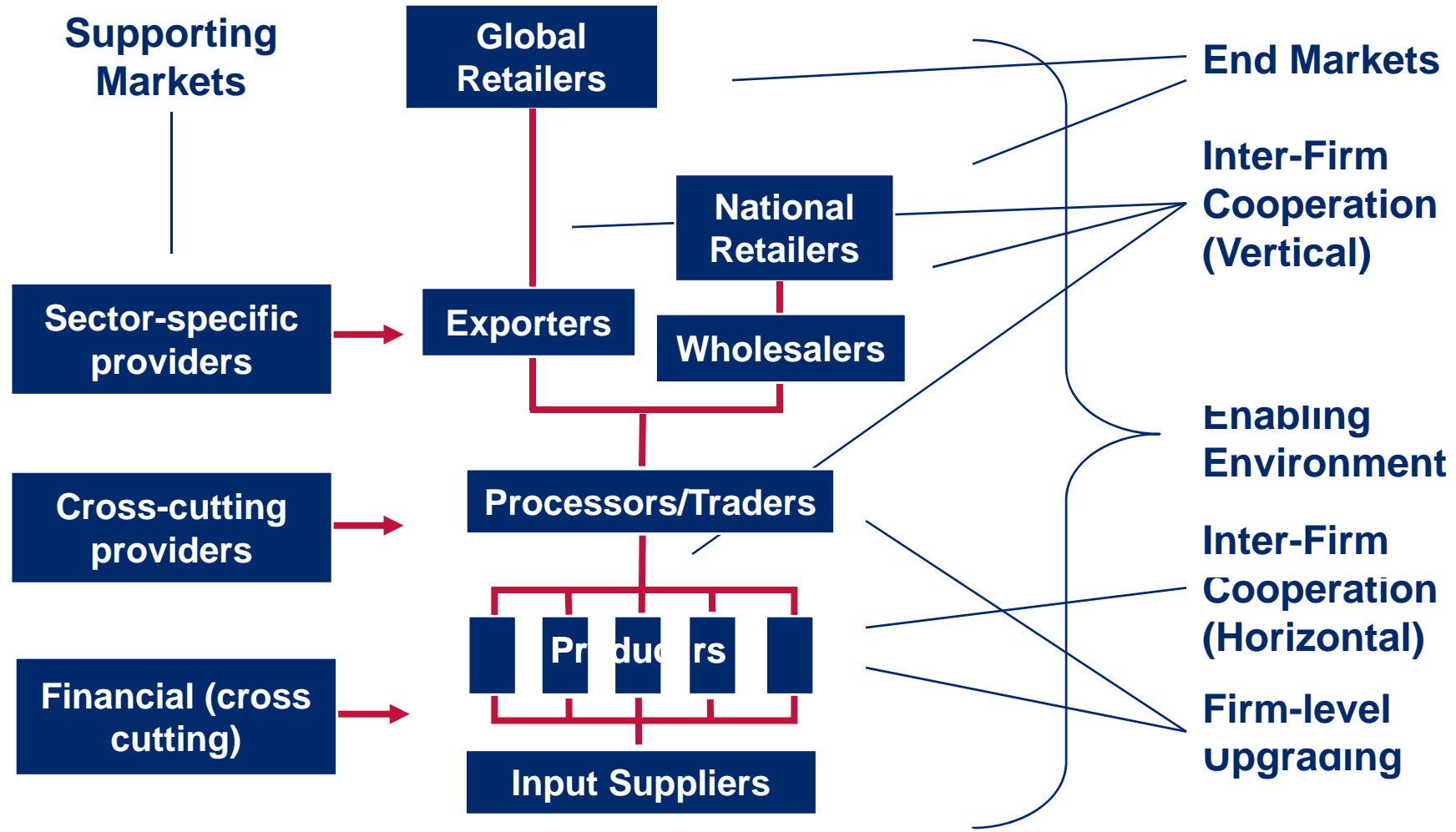
Design of initial and follow-on interventions in support of sector upgrading strategy.



Uptake of activity or behavior among private sector actors. Greater sector competitiveness realized.



# VALUE CHAIN: A FRAMEWORK FOR INTERVENTION



# KEY GUIDING PRINCIPLES

- ➔ *Interventions should address specific value chain constraints*
- ➔ *Interventions should be time-bound*
- ➔ *Interventions should kick-start a “market response”*



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# The Kenya BDS Program

## *Tree-Fruit Activities*

Emerging Markets Group, Ltd.

September 17, 2008



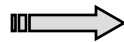
# TREE-FRUITS: CRITICAL CONSTRAINTS FACING THE SECTOR

## Enabling Environment



- EurepGAP, Traceability, MRLs
- Weak regulatory enforcement = exportation of low quality fruit = poor image abroad

## End Markets



- Exporters targeting wholesale speculative markets
- Secondary market non-existent

## Supporting Markets



- Under-developed supply of business and financial service markets
- Access to material input markets limited

## Inter-Firm Cooperation



- Lead firms purchasing through spot market brokers
- Smallholders selling as individuals

## Firm-level Upgrading



- Smallholder trees dominated by indigenous and non-marketable varieties
- Failure by smallholder farmers to operate farm as a business

# TREE-FRUITS: KEY INTERVENTIONS

- **Cluster Analyses and Production Census for Tree-fruit Commodities**
- **Group Formation and Market Access for Smallholder Avocado Farmers**
- **Development of Independent Service Providers in Grafting and Pruning**
- **Development of Commercial Agrochemical Spray Services**
- **Pioneering of Agrochemical Loan Program with Equity Bank**
- **Capacity-Building of Agro-Chemical Stockists as Extension Officers**
- **Strategic Business Advisory for Market Linkage Firms**
- **Promotion of Passion Fruit as a Smallholder Crop in Embu and Meru Districts and Market Linkages**
- **Development of Commercial Tree-fruit Nurseries in Central and Eastern**
- **Facilitate Forward Linkages Among Smallholder Mango Farmers in Central, Eastern, and Coast**
- **Facilitate Access to Commercial Market Information Via ICT**
- **QMS Development for passion fruit and avocado smallholder schemes**

# TREE-FRUITS: MAJOR ACCOMPLISHMENTS TO DATE

## Avocados

- 6 leading exporters now sourcing directly from smallholder farmers via supply contracts, with a total outreach of 129,998 trees.
- Emergence of 4 industrial-scale avocado oil processors.
- Development of 3 rural-based market linkage firms, with an active smallholder client base exceeding 21,000 farmers.
- 3,795 farmers accessing Equity Bank agrochemical loan in the first year of program, resulting in 23,916 trees sprayed with over 95% repayment.
- 42 accredited agrochemical sprayers developed.
- 60 grafting and pruning service providers developed, resulting in rehabilitation of 34,000 avocado and 23,000 mango trees respectively.
- Average Fuerte price increase from Kshs .50 to Kshs 3.50. Hass price increase from Kshs 1.00 to Kshs 4.50.
- QMS developed for avocado sector.

# **TREE-FRUITS: MAJOR ACCOMPLISHMENTS TO DATE**

## **(cont'd)**

### **Passion Fruit**

- **4 leading exporters now sourcing directly from smallholder farmers via supply contracts, with a total outreach of 272,712 vines.**
- **Combined monthly grade 1 production of 70 MTs sold between Kshs 60 – 70 per Kg.**
- **1 rural-based market linkage firm operating on full commercial terms, with a total outreach of 2,215 smallholder farmers.**
- **297 smallholder passion fruit nurseries developed and operational.**
- **QMS developed for passion fruit sector.**
- **MIS for efficient production management.**

### **Mangoes**

- **3,037 smallholder farmers organized into 5 production clusters with a total outreach of 107,443 trees.**
- **Year 5 sales of grade 1 reached Kshs 6,961,256 and Kshs 9,219,168 of grade 2 through rural based market linkage firm.**

# PANEL DISCUSSIONS

- Market Linkage Firms
- Service Providers
- Lead Firms
- Smallholder Farmers



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# The Kenya BDS Program

## *Lake Victoria Fish Activities*

**Emerging Markets Group, Ltd.**  
**September 17, 2008**

# LV FISH: CRITICAL CONSTRAINTS FACING THE SECTOR

## Enabling Environment



- Lack of harmonized regulation among 3 countries
- Weak regulatory enforcement and corruption

## End Markets



- Concerns over product handling and hygiene of fish from Kenya
- Declining supply threatens viability of Nile Perch in end market

## Supporting Markets



- Poor access to ice, fishing gear, inputs
- Lack of formal financial institutions or products targeting fisher-folk

## Inter-Firm Cooperation



- Heavy broker exploitation
- Fisher-folk selling as individuals

## Firm-level Upgrading



- Lack of value-addition
- Non-businesslike approach to fishing activities and poor handling techniques

# LV FISH: KEY INTERVENTIONS

- **Facilitate Improved Accessibility of Savings Services Among LV Fisher-folk**
- **Facilitate Improved Availability of Fishing Gear among LV Fisher-folk**
- **Value-Addition and Market Linkages for Omena Women Processors**
- **Establishment of Commercial Market Distribution Networks for Catfish Fingerling**
- **Market Assessment and Design of Commercial Ice Distribution Strategy**
- **Commercialization of Fish Skin for Rural Women Artisanal Processors**
- **Development of Small-Scale Clarias Fingerling Production Clusters**
- **Development of Commercial Tilapia Cage Farming Clusters**
- **MIS for Efficient Production Management**
- **Assistance in Industry Self-Regulation Through Development of Commercial Slot-Size Inspectors**



# LV FISH SECTOR: MAJOR ACCOMPLISHMENTS TO DATE

## Omena

- **642 omena women processors organized into 21 groups spread throughout 17 beaches, and linked with lead exporter through supply contracts. 300 MTs have been sold valued at Kshs 13.5 million.**

## Nile Perch

- **5 women fish skin groups established, with 28,824 hides processed to date realizing sales of Kshs 206,569. Standing orders for 3,000 hides per week. Increased production led to establishment of fish-skin processing plant in Kisumu.**
- **6 beach banks in operation, having reached over 14,500 clients with cumulative savings exceeding Kshs 102,986,308. Equity and Family Bank pursuing expansion plans.**
- **42 fishing gear retailers and 6 wholesalers actively linked through horizontal bulking & vertically integrated supply deliveries, providing 2,500 fisher folk enhanced access to fishing gear.**

# LV FISH SECTOR: MAJOR ACCOMPLISHMENTS TO DATE

## (cont'd)

### Tilapia

- 40 aquaculture farmers developed and organized into 4 production clusters, with 136 ponds and 7 hatcheries.
- 3 tilapia cage farming groups established in Central Kenya with 28 cages and an anticipated production of 2,900 table-size tilapia.

### Industry-Level

- Self-regulation system established and 5 independent slot-size inspectors developed for monitoring of undersized catch at IFP and beach levels.

# VALUE CHAIN ACTOR TESTIMONIALS

- Financial – Angela Akoth, SAGA
- Industry – Beth Wagude, AFIPEK
- Lead Firm – Nehemiah Mbata, Promasidor
- Producer – George Ambuli, Vihiga Aquaculture Farmers SHG
- Horizontal and Vertical Linkages – S.M. Kiruthu, ESALIA
- Enabling Environment – Ministry of Fisheries Development



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# The Kenya BDS Program

*Lessons Learned and Future Programming*

Emerging Markets Group, Ltd.  
September 17, 2008



# EMERGING LESSONS IN VALUE CHAIN FACILITATION

# LESSONS LEARNED

1. Maintain an overall value-chain focus.
2. Flexibility in program design and dynamic management of value-chain is critical.
3. Identifying incentives (*relationships, learning, benefits*) is necessary for understanding market behavior.
4. Stakeholder buy-in and industry ownership is critical.

# LESSONS LEARNED (cont'd)

5. Leverage **lead firms** and buy-down risk to encourage market innovation.
6. Exploit a **pilot** opportunity to stimulate a market response and crowd-in new entrants (start small...think BIG).
7. Strive for **minimalism** and “**light touch**” interventions.
8. Maintain **commercial** signals. Hide the donor if possible.

# LESSONS LEARNED (cont'd)

9. When targeting the rural MSE, support market offerings must be **simple, tangible, and practical**.
10. Sustainability is everything. Interventions should be grounded within **exit strategy**.
11. Some businesses will fail while others will succeed – **let market forces take their course**.



# CHALLENGES FACED

1. NGOs that institutionalize donor activity hamper commercialization efforts.
2. Limited number of local facilitators “who can deliver” challenges pace of implementation.
3. Pervasive corruption and lack of regulatory enforcement hampers development of private sector.

## CHALLENGES FACED (cont'd)

4. Lack of coordination leads to donors working at cross purposes and confusing signals among market actors.
5. Weak or stagnant product markets retard growth of support markets.
6. Seasonal orientation of product markets may leave service providers with inconsistent revenue streams.



# **FUTURE PROGRAMMING**

# TREE-FRUIT SECTOR

1. Increase **smallholder production** and quality of high-value varieties
2. Further **industry coordination**, branding, and promotion
3. Tightening of **quality management**, good agricultural practice, and traceability systems at farmer group level
4. Explore **infrastructure development** for transportation of product and rural processing facilities

# LAKE VICTORIA FISH SECTOR

1. Support portfolio of interventions to **conserve declining stocks**
2. Further develop **financial service** offering to fisher-folk
3. Promote **alternative industry** to remove pressure from Lake
4. Explore additional forms of **value-addition**
5. Expand **aquaculture development** and **cage farming** initiatives throughout Western, Nyanza, and Central



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