I-DEV INTERNATIONAL

Desert Edge Recommendations Report

To African Wildlife Foundation

August 1, 2013

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SCOPE OF CONTRACT & METHODOLOGY

► **SCOPE OF CONTRACT**

- Under the contract signed between AWF and I-DEV, I-DEV proposed the following to assess and advise DE on forward-looking strategy.
  - Step 1: 360-Degree Review of Business Operations
  - Step 2: Strategy Workshop with Key Stakeholders & Management
  - Step 3: Financial Analysis & Financial Model Development (based on Desert Edge's historical financials)
  - Step 4: Summary of Key Findings, Results, and Recommendations
  - Step 5: Summary Business Plan (based upon recommendations & findings)

► **METHODOLOGY**

- **Review of historical documents**
  - Past business plans, financial projections, raw Quickbooks financial data for 2011-2013, R&D reports, MOUs, Verde Venture loan agreement & due diligence report).
- **Interviews with BoD, Funders & Other**
  - Group & individual interviews with each Board member (Jenny Groom, Josep Oriel, and Morticai Ogada)
  - Individual interviews/discussions with Brian McBrearity, AWF Director of Conservation Enterprise & Morticai Ogada, LWF Director.
  - Interviews with Benson Lengalen, Director of Samburu Heartlands region of AWF and Suzie Wren, Founder of Desert Edge
  - Interview with Verde Ventures Fund Manager, Neel Inamdar, lender to Desert Edge.
- **Interviews with Desert Edge Staff** (all members, except 3 extension officers who could not be reached)
  - **Interviews with existing & past buyers/partners, including:** Earthoil Kenya; Barney's Restaurant; Cinnabar Green; Arbor Oils of Africa; Laikipia Aloe; Local grocery stores & retail vendors.
  - **Interviews & outreach to potential partners, including:** Honey Care Africa; Kate's Organics; Tropical Forest Products; Liz Earle; Indfrag; EcoFuels Kenya; African Biofuels; Shea Terra Organics.
- **Field visits**
  - I-DEV visited 2-3 beekeeping groups in Laikipia Central that sell to Desert Edge
  - I-DEV visited the DE trial ethnobotanical site & spoke with trial site manager

HISTORICAL OVERVIEW OF DESERT EDGE

▶ GENERAL BACKGROUND

- The concept for Desert Edge was developed in 2007 by Susie Wren, who was hired by African Wildlife Foundation (AWF) to assess the overall viability of a business-based bio-enterprise development program in one or both of the Samburu and Kilimanjaro Heartlands.
- According to the AWF Bio-Enterprise Inception Report, dated October 2008, Desert Edge was formed as a program that would more effectively and efficiently target the objectives of the Millennium Goals and provide additional resources toward developing a long-term strategy to address food security, poverty alleviation and women's empowerment.
- After a two-year "incubation" period under the guidance of LWF as the Conservation Enterprise Development Programme (CEDP), Desert Edge was to be spun out as a self-sustaining not-for-profit company.
- Desert Edge was incorporated in the Republic of Kenya as Desert Edge Bio-Enterprise Trading Company, a not-for-profit company in January 2010. (See other key milestones outlined on page 6)
- Desert Edge began sales in 2010, but has not yet achieved profitability.

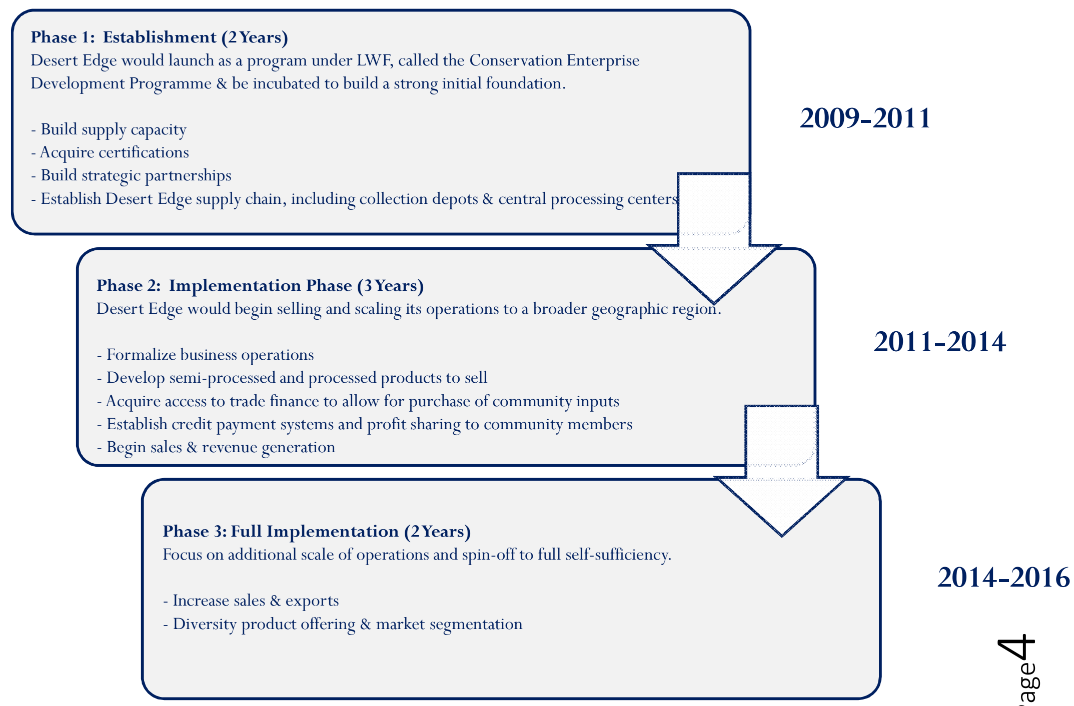
▶ THREE-PHASED STRATEGY FOR DESERT EDGE'S ROLLOUT

- Below is an outline of the strategy and rollout initially anticipated for Desert Edge. The company is currently in Phase 2, and is on target in terms of the general objectives outlined in the chart below.

Desert Edge has had 2 full years of sales (2011, 2012), and has succeeded in launching 7 products to market though honey continues to be its dominant revenue generator.

Desert Edge succeeded in acquiring access to trade finance or working capital from Verde Ventures to purchase additional product from communities; however, failure to achieve projected revenue targets of $US 100,000 by March 2013, prevented Desert Edge from accessing the full line of $US 75,000. Only $US 30,000 was deployed in March 2013, and has been spent.

Desert Edge has not achieved direct credit or cash payment (or any other credit payment system) to expedite payment to producers and increase willingness to sell to Desert Edge.

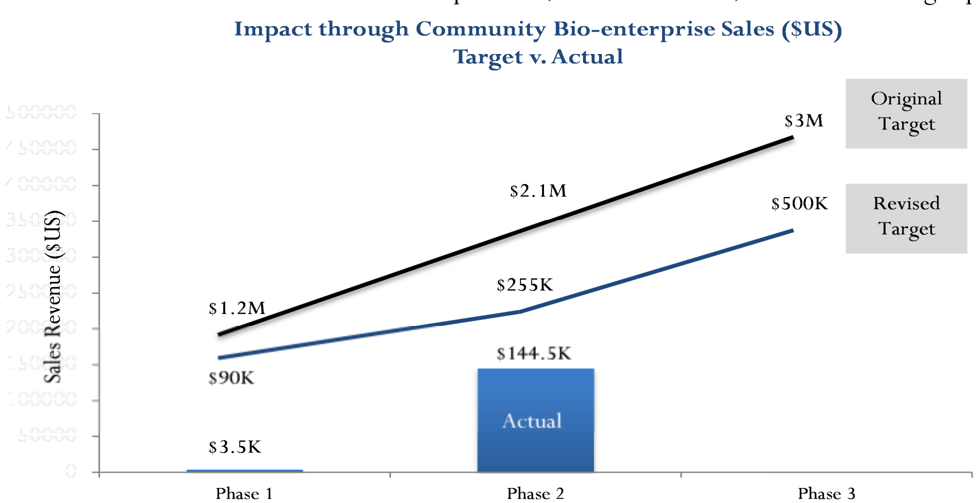


Historical Overview of Desert Edge

► **Original Purpose & Objectives**

- **Mission & Vision:** To reverse "environmental degradation in the Ewaso ecosystem through market driven community based indigenous bio-enterprise."
- **Original Impact Objectives**
  - Desert Edge's target original impact objectives included both social and conservation outcomes. Social impact of 5,400 direct beneficiaries was outlined on a baseline study that identified approximately 70 producers groups attached to conservancies, 30 producer groups attached to ranches and 12 CBOs (Community Based Organizations) in the Ewaso region.
  - The 2011-2016 Implementation Plan revised these objectives to:
    - Increase income by at least 25% to 4,200 direct beneficiaries (approx. 25,200 indirect beneficiaries) by the end of the program.
    - Increase business management skills, product quality, supply, and equitable participation of women and the less advantaged.
    - Reverse environmental degradation through market driven community based bio-enterprise in the Ewaso ecosystem.
  - While metrics are not well-tracked, approx. 80% of suppliers in the existing beekeeper network are certified organic.
    - Organic & wild harvest certification is monitored by extension officers and the Director of R&D each year.
    - Currently, 2 groups are formally registered as wild harvest certified. 1-2 additional groups are in the process of receiving certification.
    - CFAS- Community Forestry Associations- automatically receive wild harvest certification, which is potential incentive for Desert Edge to work more with these groups.
    - Neither certified organic or future certified wild harvest groups are required to sell to Desert Edge, nor pay any fees for Desert Edge's support meaning Desert Edge absorbs all costs of training, extension services and certification.
  - According to staff interviews and initial metrics created by Anthony Onyango, the current M&E officer, Desert Edge is on target with its objective to work with and support 50% women. Desert Edge is currently working with 7 women groups, while co-ed groups tend to be ~50% women members.

- The following chart outlines key socio-economic targets vs. actual results. Under the most recent grant from EKN, impact metrics were once again modified to include direct impact to 1,500 beneficiaries, which Desert Edge appears to have achieved**.**



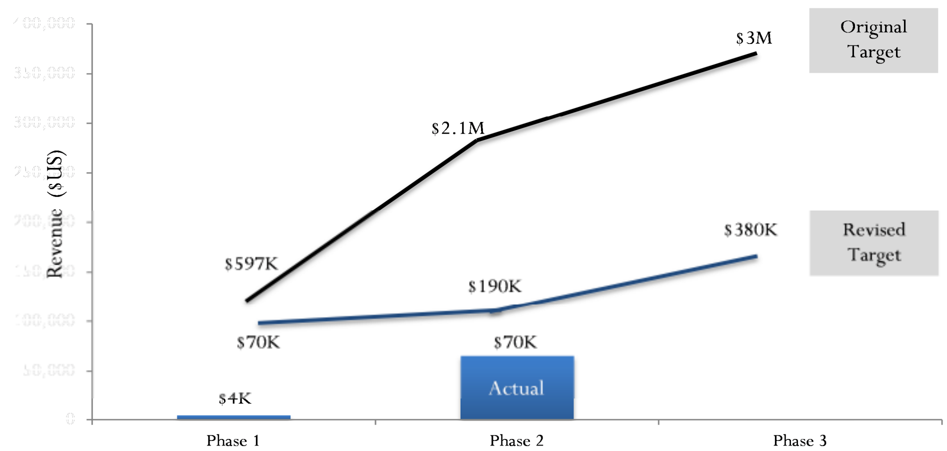
	Original Target ('08)	Revised Target ('11)	Actual ($US)
Phase 1 (2009-2011)	20 groups with $59K avg. rev/yr TOTAL: $1.2M	10 groups with $9K avg. rev/yr TOTAL: $90K	Approx. 29 groups (1 new cape chestnut) TOTAL: $3,529 (or KES 300K)
Phase 2 (2011-2014)	25 groups with $85.8K avg. rev/yr TOTAL: $2.1M	15 groups with $17K avg. rev/yr TOTAL: $255K	49 groups (5 new bee, -3 new wild harvest/aloe) TOTAL: $144,560 (or KES 12.3M)
Phase 3 (2014-2016)	30 groups with $101.3K avg. rev/yr TOTAL: $3M	20 groups with $25K avg. rev/yr TOTAL: $500K	N/A. Begins in 2014.

Historical Overview of Desert Edge

▶ Original Financial Objectives

- Original revenue targets were highly unrealistic (see chart), and thus scaled back substantially in updated business plans; However, Desert Edge has fallen significantly short of all targets.
- 2011 and 2012 were its only significant years for revenue generation, yet the company struggled to achieve and fell just short of $30,000 per year in gross revenues, or roughly 1/3 of current salaries paid to its staff.

Desert Edge Historical Revenue ($US)
Target v. Actual



▶ Verde Ventures Loan

- Desert Edge acquired $US 30,000 in trade finance or working capital in the form of a long-term loan from Verde Ventures in March 2012. However, the full commitment of $US 75,000 has not been deployed and most likely will not be.
  - Disbursement of 2nd loan of $US 45,000 was dependent on achieving $US 100,000 in gross revenues one year from loan disbursement (Mar 2013).
  - In June 2013, Desert Edge paid its first annual interest payment on principle valued at $US 6,225. Repayment of principal was only triggered after one year, and is paid on a quarterly basis, while repayment of interest accrued has been paid on a quarterly basis since March 2012.
  - Recent correspondence with Verde Ventures suggests poor communications between Desert Edge and its investor, and concerns that Desert Edge is at risk of default. However, all repayments are current at this time, though burdensome to DE's cash flows.
  - Below is the repayment schedule submitted to I-DEV by Verde Ventures. Desert Edge's staff and Program Manager claim they did not have this document previously.

Verde Ventures Loan Repayment Schedule

Loan Approved			*Amounts & Interest Rates*		*Dates*	
Full loan	$	75,000.00	First Disbursement	$ 30,000.00	Closing	03/15/12
			Annual interest	5.00%	Next Due	06/15/12
			Quarterly Interest Rate	1.25%	Maturity	03/15/14
			Closing Fee	1.0%	Number of payments	5
					Installment	($6,226.86)

Transaction History- Disbursements, Fees, Interest and Principal Payments

		Transaction Information			Interest				Principal				Fees			
Tran Date	Due Date	Tran Amt	Days	Description	Accrued	Beginning	Paid	Ending	Beginning	Paid	Ending	Payment #	Accrued	Beginning	Paid	Balance
03/20/12		(30,000.00)	0	Principal Disb					-	(30,000.00)	(30,000.00)					
03/20/12		750.00	0	Closing Fee	-	-	-	-	(30,000.00)	-	(30,000.00)		(750.00)	-	750.00	-
06/15/12		362.50	87	Interest Payment	(362.50)	-	362.50	-	(30,000.00)	-	(30,000.00)					-
09/15/12		375.00	92	Interest Payment	(375.00)	-	375.00	-	(30,000.00)	-	(30,000.00)					-
12/15/12		375.00	91	Interest Payment	(375.00)	-	375.00	-	(30,000.00)	-	(30,000.00)					
03/15/13		6,226.86	90	Princ & Int Payment	(375.00)	-	375.00	-	(30,000.00)	5,851.86	(24,148.14)	1				
06/15/13		6,226.86	92	Princ & Int Payment	(301.85)	-	301.85	-	(24,148.14)	5,925.01	(18,223.13)	2				
09/15/13		6,226.86	92	Princ & Int Payment	(227.79)	-	227.79	-	(18,223.13)	5,999.07	(12,224.05)	3				
12/15/13		6,226.86	91	Princ & Int Payment	(152.80)	-	152.80	-	(12,224.05)	6,074.06	(6,149.99)	4				
03/15/14		6,226.86	90	Princ & Int Payment	(76.87)	-	76.87	-	(6,149.99)	6,149.99	-	5				
Totals							2,246.82			30,000.00	-				750.00	

HISTORICAL OVERVIEW OF DESERT EDGE

► GRANT FUNDING TO DESERT EDGE

- The following charts show the history of grant funding to DE. To date, USAID has committed the greatest amount of funding, through LWF, which was intended to build out the bio-enterprise development program (BDP) or non-profit precursor to DE. Funds were committed from November 2009 to October 2012.
- Desert Edge raised roughly $1,162,412 (KES 98,805,037) between 2009 and 2013, according to LWF's records. According to Desert Edge's Director of Finance, the updated figure including recent grant from EKN increases total grant funding to-date to $US 2.09MM, which is roughly 2/3 of anticipated funding through Phase 1 and Phase 2 and more than adequate capital to scale a business to self-sustainability. (Note: Figures could not be confirmed and AWF work plan only specifies KES 2,237,500 from EKN).

Grant Funding to Desert Edge (in Chronological Order)

Date	Funder	Amount (KES)	Amount ($US)
6/24/2009	AWF	8,654,800	$101,821
8/16/2010	AWF	5,901,000	$69,424
11/22/2010	LWF	1,000,000	$11,765
4/11/2011	AWF	4,500,000	$52,941
7/27/2011	LWF	1,000,000	$11,765
10/14/2011	AWF	995,914	$11,717
11/12/2011	RNE	10,000,000	$117,647
3/27/2012	RNE	3,000,000	$35,294
4/28/2012	RNE	1,480,800	$17,421
5/8/2012	RNE	300,000	$3,529
5/18/2012	RNE	5,219,200	$61,402
7/26/2012	RNE	1,700,000	$20,000
8/27/2012	RNE	2,000,000	$23,529
11/29/2012	RNE	1,072,061	$12,612
12/20/2012	RNE	1,000,000	$11,765
1/28/2013	RNE	3,701,536	$43,547
2009 to present	USAID	47,279,726	$556,232
TOTAL		**98,805,037**	**$1,162,412**

Total Grant Funding By Funder

(Ranked by Total Funds Committed)

USAID	$556,232
RNE	$346,748
AWF	$235,903
LWF	$23,529
Total	**$1,162,412**

Note:
Based on data received from LWF.
Desert Edge claims receipt of $2.1M in grants to-date.

► HISTORICAL LEADERSHIP

- Desert Edge's initial strategy was developed by Suzie Wren, who was hired as a consultant on bio-enterprise development by AWF. Wren is a technical expert in natural products including essential oils and herbal beauty and health products. She is now based in the UK and no longer involved with DE.
- Tom MacWilliams was hired to replace Wren as DE Program Manager in 2011. He previously worked for the Church World Service in Nairobi as Deputy Representative for Administration and Finance, and in various roles at Habitat for Humanity International and the U.S. Peace Corps. He was not interviewed for this report, and is no longer involved with Desert Edge.

Historical Overview of Desert Edge

► Historical Products & Sales

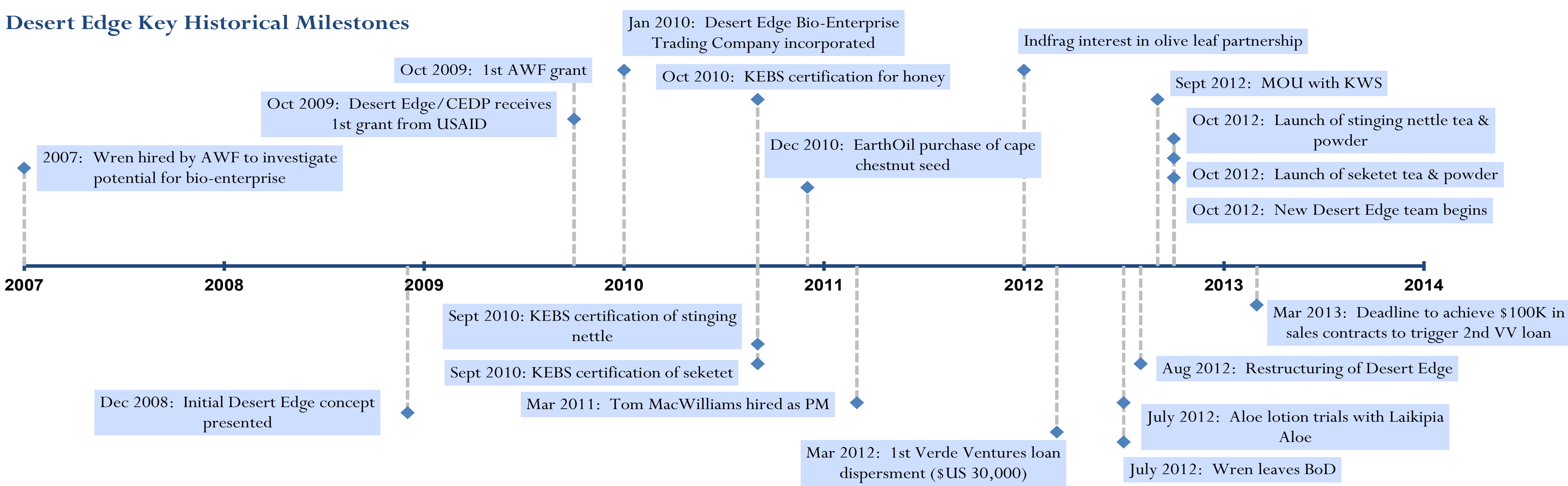
- Desert Edge began sales in 2010 with trial collection and sale of cape chestnut seed to EarthOil, a UK-based essential oil processor and trader that has established a partnership with The Body Shop in Nanyuki. 10 tons of cape chestnut seed were sold. Led to an overharvest risk, thus development of wild harvest protocol for cape chestnut seed.
- The Phytohealth product line launched in 2012, with trial sales of 5 products: 1) stinging nettle tea, 2) stinging nettle powder, 3) stinging nettle root powder, 4) seketet tea and 5) seketet powder. Sales have been slow due to poor consumer awareness and lack of marketing strategy.
- Non-core sales of hives, bee collection equipment such as containers, and waste comb (left over after honey processing) have been stronger revenue drivers than Phytohealth products.

Nutraceutical & Other Benefits of Desert Edge Ingredients

Product	
Seketet (Myrsine Africana, African boxwood)	- Contains embelin, a dewormer. Substitute for Embelia, from Embelia ribes, a key ingredient in deworming agents. - Other stimulating characteristics e.g. male sexual stimulant. - Pepper flavor for healthy flavoring. Antibacterial, contains phytosterols that reduce high blood pressure.
Stinging Nettle *(Urtica massaica)*	- A well-recognized herbal remedy becaues of its rich nutrients (iron, vitamin C, boron). - Good for the lymph system, natural diuretic, cleans kidnesy and bladder, hormonal regulator - Commonly used in mokimo, a popular Kenyan dish
Stinging Nettle Root *(Urtica massaica)*	- Root is said to be good for treating enlarged prostate glands and benigh prostatic hyperplasia, good pelvic decongestant
Aloe Secundiflora *(Aloe Ferox)*	- Leaves are used for aloin and gel. - Gel is a strong antioxidant, anti-inflammatory, anti-microbial and moisturizing agent in healing skin products. - Aloin is poisonous in high concentration, but used as a natural laxative and laxative ingredient.
Honey	- Nutraceutical uses include topical application for healing wounds, reducing odor, reducing swelling and scarring. - Often contains vitamins B1, B2, C, B6, B5, B3. Rich source of energy and minerals including magnesium, potassium, calcium, sodium chloride, sulphur, iron and phosphate.
Beeswax	- Excellent emollient and base for skincare products - Used as a bee attractant in hives

► Historical Milestones

Desert Edge Key Historical Milestones



DESERT EDGE TODAY

DESERT EDGE TODAY: OVERVIEW OF CURRENT SITUATION

- **INTRODUCTION**
    - Desert Edge has demonstrated some success over its 4 year history; however, on key financial and impact metrics, it has struggled to track or achieve meaningful results and has generally failed as a for-profit, stand-alone business. This section outlines key take-aways and the current status of the company, beginning with an overview of its successes & failures.
    - **Key Successes:**
        - Launch/pilot of 7 products
        - KEBS certification for 3 natural ingredients (seketet, honey, stinging nettle)
        - Strong initial leads with potential long-term clients and strategic partners (KWS, Ol Pejeta/Serena Hotels, Laikipia Aloe)
        - Wild harvest collection of cape chestnut seed
        - Access to trade financing from Verde Ventures
        - 4 community groups (~270 members) committed to selling nettle, cape chestnut, aloe and seketet exclusively to Desert Edge
        - Established local presence and brand recognition in and around Laikipia and Maralal (Kirisia)
        - Established wild harvest protocol for cape chestnut seed, seketet and olive leaf
    - **Key Failures:**
        - No meaningful revenue, revenue growth or profitability
        - No or limited supply chain loyalty or competitive advantage in buying local honey
        - No appreciation or valuation of supply chain extension or capacity building services offered to the community
        - No meaningful or scalable strategic partnerships, especially with relation to sales or distribution opportunities
        - Unclear and untracked social or environmental impact

- **MISSION, VISION & OBJECTIVES:** Desert Edge's mission, vision and objectives largely remain the same today. However, the following points should be noted:
    - **Geographic Focus:** Samburu government and others at Desert Edge have suggested that Kirisia/Samburu has not received the support that the Laikipa regions have. I-DEV has seen no evidence of this, based on our additional conversations with staff. However, Ronald Lelekoitien, the extension officer who runs the Kirisia operations, did not respond to I-DEV's requests for a call.
    - **Lack of Clear Strategy & Mission Drift:**
        - DE appears to be operating without a clear strategic focus, in part due to future funding challenges and the recent restructuring.
        - Current staff is mostly new hires, and have focused on understanding the operations and waiting for strategic direction from its funders, LWF and AWF.
        - Core ongoing activities are:

- Capacity building and field training related to beekeeping
- Collection, processing and sale of honey and beeswax with the majority of honey sold to historical buyers/clients and the honey waste (including beeswax) sold to local honey brewers
- Collection and trial development/sale of retail products (seketet, stinging nettle, stinging nettle root, teas and powders) to honey retail clients (grocery stores, gift shops) on consignment. (Note: consignment sales were eliminated in 2013).

► SALES & MARKETING:

- DE's current product strategy demonstrates a lack of product focus with broad "R&D" testing and little market research on demand. As such, the company suffers from the lack of cohesive sales/marketing strategy and sufficient analysis of past sales, demand or pricing.
- Desert Edge has tested 9 natural products in-depth, and launched 7 SKUs (listed on page 13).
- Supply vs. demand driven approach to product development/R&D has inhibited sales & profitability. Desert Edge is caught in a regulatory and R&D focus rather than sales focus for a few target products.
- Its core product, the 500 g jar of honey, is not profitable, and only sold in Laikipia and Samburu/Kirisia (Maralal). Jars are sold at an average price of KES 200 while COGS are KES 243, representing KES 43 loss per jar sold.
- Largest sales by total $US (28%) have been to individual buyers at trade shows, etc. while largest volume sales have been to bulk ingredient buyers such as The Tamarind Group (owner of Carnivore restaurant). Retail outlets such as grocery stores & shops are the smallest client segment by $US sales, representing 12% of total sales.
- Core products & services of interest to the Desert Edge team, and thus the ongoing operational focus, are retail honey, seketet-based products, and a series of finished retail goods, including beeswax candles, aloe creams & lotions (Aloe Gold), and herbal teas (seketet, nettle, aloe flower), as well as nutraceutical products such as tinctures.

► SUPPLY CHAIN:

- DE's supply chain is predominantly made up of beekeeper groups/honey producers (37 of a total of 49 community groups) spanning the 5 geographic regions of Laikipa North, Laikipia West, Laikipia East, Laikipia Central and Kirisia/Samburu.
- Desert Edge currently supports an estimated 1,600 local producers with extension services and training. Of these, an estimated 465 producers sold to DE in 2012. DE does not track data on average household income; however, targeted producers are considered low-income and largely subsistence farmers or pastoralists.
- Honey producers (vs. those who have engaged in wild harvest of cape chestnut, nettle or seketet) demonstrate the least loyalty to DE selling the majority of their honey (est. 60-70%) at local markets (e.g. Isiolo market), to other local companies, or to middle men traders who re-sell the product or use it for honey brew.
- Key factors in determining sale of honey by these farmers is 1) pricing offered (up to KES 300-400/kg vs. Desert Edge's standard prices of KES 185/kg for conventional or KES 200 /kg for organic comb honey) and 2) buyer's ability to pay in cash or mobile payment upon receipt.

- Cape chestnut and nettle collectors (2 groups) collect exclusively for Desert Edge, and aloe producers vary between producing their own small scale branded commercial products such as soaps vs. selling to Desert Edge.
- Quality of all target natural products is very good and honey (at least 50 tons), seketet, aloe secundiflora, cape chestnut (30-60 tons), and croton nut (over 100 tons) are all in abundant supply and quantities beyond what DE could sell.

► **PRODUCTION & PROCESSING:**

- DE can produce ~6.2-6.5 tons/month of processed honey or 78 tons per year, from its 2 operating facilities. Kirisia is approximately 3 times the size of the Nanyuki facility.
- DE has internal capacity to semi-process aloe into gum and gel; grind seketet, nettle and other leafy products (with a blender), produce tinctures, and gel-based capsules. It can also do basic moisture and chemical testing that requires centrifuge.
- DE has trialed production of retail aloe cream and lotion products; however, a lack of internal expertise to formulate the products or mix them as specified. This function was previously outsourced to Laikipia Aloe, a neighboring company that sells similar products throughout Kenya.
- DE processes and packages retail and bulk honey entirely in-house and largely via manual label (e.g. manual application of labels, etc.). Honey is processed and packaged by Director of Bee Enterprise and the Assistant Director of Sales.
- Herbal teas require ground plants to be sealed in a mesh packaging. Grinding is done in house, while packaging is outsourced to a company in Nairobi.

► **SOCIAL & ENVIRONMENTAL IMPACT:**

- Desert Edge has no formal metrics & evaluation system to track social/environmental or socio-economic impact.
- Currently, only the # of community groups & members DE works with is tracked.
- Under the funding terms from EKN's grant, Desert Edge has committed to a target of ~1,600 direct beneficiaries versus past targets of 5,400 direct beneficiaries (original plan) and 4,200 direct beneficiaries (updated plan in 2011).
- DE needs to formalize monitoring of both social/environmental and financial/performance metrics.
- Based on inconsistent and inadequate data available, Desert Edge has achieved the target of 1,600 direct beneficiaries who either sell to the company or who have received capacity building.

► **CURRENT FINANCIAL SITUATION:**

- Only significant sales for DE were in 2012 with a total of core revenues from produce sales of $US 31,611. First quarter sales for 2013 indicate the company's total sales will be lower, if we assume each quarter is similar. Sales for the first calendar quarter were $US 6,732, indicating total projected annual sales of $US 20,197 or a 36% decline over the previous year.
- DE has never been profitable. Losses were $US 221, 791 in 2012 and $99,353 in 2011, excluding grants as revenue. In audited financials, DE treated grants as revenue suggesting a 2013 profit of $US 7,656 and 2011 profit of $US 90,198.
- The October 2012 restructuring reduced the company's monthly burn rate by nearly 50%, from US$38.K prior to restructuring to $19.2K; however, costs continue to be high and represent over 50% of total annual revenues ($US 31,611 in 2013).

- The largest expenses are associated with the 15-person staff and monthly salaries that amount to $US 9,412 or nearly half of monthly costs.
- Desert Edge suffers from ongoing working capital shortfalls preventing the company from purchasing honey from target communities, or negotiating on more favorable pricing.
- Further, cash reserves continue to be depleted by unprofitable operations and the required repayment of the principle (plus accrued interest) for the Verde Ventures loan of $US 30,000. Beginning after the one year anniversary of loan disbursement, DE must pay quarterly payments on interest and principle that ramps up each quarter, beginning with $US 5,851.86 in March 2013 and increasing up to final payment of $US 6,159.99 in March 2014.

► **MANAGEMENT, STAFF & ORGANIZATIONAL STRUCTURE:**

- DE has too large a staff with little adherence to roles or organizational structure designated in official organizational chart.
- There is clear confusion of responsibilities, overlapping functions and diverging perspectives on whether to follow the mission, vision and objectives of CEDP, a non-profit capacity development program or those of Desert Edge, a for-profit, self-sustaining business.
- LWF's close ties to Desert Edge restrict business activities considerably and hinder profitability of the company. Staff is contracted employees of LWF/CEDP and LWF must approve expenses over KES 50,000. Monthly reporting and mandatory LWF meetings/event attendance are further constraints.
- This has led to a severe lack of business centric organizational culture at DE or the development of any organizational culture at all. The question can and should be asked – Is Desert Edge a business or an NGO program, as it clearly cannot successfully be both.
- DE lacks any real proactive board of directors. This has caused a large vacuum in management oversight, accountability, and guidance, especially regarding the establishment and on-going evaluation of performance metrics and targets for DE management and staff.

DESERT EDGE TODAY: PRODUCT MIX, SALES & MARKETING

► **PRODUCT FOCUS**

- Desert Edge currently sells 7 products; however, only honey products (500 g jars) and bulk honey have been sold in any meaningful volume.
- Phytohealth nutritional products, including seketet and nettle teas and powders, have only been produced once in 2012. Initial trial stock is still yet to be fully sold.
- As evident in the chart below, historical sales have been volatile and based on a random and varying mix of products, starting with raw cape chestnut seed.
- Desert Edge has now negotiated a second order of 30 tons of cape chestnut seed, the first cape chestnut sales since 2010 (10 tons at KES 38/kg) to be sold to EarthOil at KES 55/kg.
  - Desert Edge also committed to an order of 4 tons of cape chestnut seed to EarthOil in 2012 that it was unable to fulfill due to poor advanced planning and wild fire/climate that reduced yield, leaving EarthOil rushing to find another last minute supplier.
- While average monthly sales of 300g jars of honey have increased in 2013 over previous years, all other products either declined in average sales or remained flat.
  - DE believes that sales of its Phytohealth products increased in 2013, however, assuming historic seasonality/ cyclicality in buying patterns the sales figures suggest a decline from past years. This is indicative of the lack of quantitative analysis being conducted in-house at Desert Edge.

► **CURRENT MARKET FOCUS & SEGMENTATION**

- DE has no formal market strategy, market focus or any clear understanding of client segmentation and demand by segments.
- Historically DE relied on opportunistic sales via 5 market segments identified by I-DEV (see below).
- Ingredient buyers (restaurants, hotels and re-salers) make up the largest volume buyers of Desert Edge's honey- either purchasing the 500 g Eco Honey jars or bulk honey. This customer segment poses a huge opportunity that has largely been untapped. Leading buyers include:
  - The Tamarind Group, owner of Carnivore restaurant
  - ICIPE, a research institution that also sells jarred honey under a different Eco Honey brand, and
  - Kennedy William, a business man who buys honey to make honey brew.
- Most of DE's clients are small with the largest purchaser buying $3,137 of honey.

Desert Edge's Top 20 Clients by Revenue Sales

(Jan-Dec 2012)

Jan - Dec 2012	Segment	Kshs	US$
1 Toprod (K) Limited.	Manufacturer	266,621	$3,137
2 ICIPE	Partner	258,621	$3,043
3 The Tamarind Group	Tourism	181,034	$2,130
4 Segera Ranch	Tourism	130,800	$1,539
5 Antony Kihara	Individual	123,310	$1,451
6 Kennedy Nzilu William	Manufacturer	114,460	$1,347
7 Nixon Elachi	Desert Edge	104,888	$1,234
8 William Nzilu	Manufacturer	95,501	$1,124
9 Maria Dodds	Manufacturer	82,205	$967
10 Maxoil Limited	Grocery	54,836	$645
11 Kirisia Office	Desert Edge	52,845	$622
12 Maxwell Lumbasi	Desert Edge	50,095	$589
13 Kimani Ndungu	Individual	38,655	$455
14 Harrison Kisio	Desert Edge	36,953	$435
15 AWF	Partner	36,414	$428
16 Sweet Waters Tented Camp	Tourism	31,862	$375
17 Zipporah Wamakuta	Individual	31,034	$365
18 Kasturi Supermarket	Grocery	29,017	$341
19 Borana Lodge Ltd.	Tourism	27,517	$324
20 Equitorial Supermarket	Grocery	26,483	312

Note: Desert Edge affiliates are highlighted.

DESERT EDGE TODAY: PRODUCT MIX, SALES & MARKETING

- Below is a list of DE's historical core product sales over the full history of DE sales. DE's sales history has been extremely volatile in both types of products being sold and total revenue generated.

Core Product Sales for Desert Edge (2010 - 2013)

	2010				2011				2012				2013			
Product	**Qty**	**Avg. Month**	**KES**	**US$**	**Qty**	**Avg. Month**	**KES**	**US$**	**Qty**	**Avg. Month**	**KES**	**US$**	**Qty**	**Avg. Month**	**Act. thru Apr US$**	**Proj. 12 month US$**
Honey(500g)		-		$0	781	65	138,622	$1,631	5,181	432	1,026,159	$12,072	1,653	413	$3,675	$11,026
Honey(bulk kg)		-		$0	-	-	-	$0	3,033	253	802,940	$9,446	230	57	$828	$2,484
Honey (300g)		-		$0	-	-	-	$0	861	72	105,310	$1,239	906	227	$1,303	$3,910
Nettle Tea		-		$0	171	14	10,740	$126	410	34	58,181	$684	116	29	$174	$522
Seketet Powder		-		$0	3	0	388	$5	314	26	49,586	$583	34	9	$57	$172
Seketet Tea		-		$0	-	-	-	$0	215	18	31,121	$366	79	20	$128	$385
Aloe Rich Night Cream		-		$0	-	-	-	$0	54	5	18,707	$220	-	0	$0	$0
Nettle Powder		-		$0	-	-	-	$0	113	9	14,612	$172	50	13	$68	$204
Aloe Gold Lotion		-		$0	-	-	-	$0	25	2	12,931	$152	-	0	$0	$0
Nettle Root Powder		-		$0	-	-	-	$0	31	3	12,879	$152	3	1	$15	$46
Beeswax		-		$0	1	0	390	$5	6	1	4,800	$56	3	1	$24	$73
Cape Chestnut Oil (200ml)		-		$0	1	0	172	$2	-	-	-	$0	-	0	$0	$0
Cape Chestnut Seed (kg)	10,000	833	368,815	$4,339	-	-	-	$0	-	-	-	$0	-	0	$0	$0
Log Hives		-		$0	44	4	26,400	$311	218	18	137,200	$1,614	-	0	$0	$0
Used Honey Comb (kg)		-		$0	-	-	-	$0	2,728	227	211,337	$2,486	452	113	$458	$1,375
Containers & Supplies		-		$0	-	-	-	$0	7	1	201,138	$2,366	0	0	$0	$0
Total Sales			**368,815**	**$4,339**			**176,713**	**$2,079**			**2,686,902**	**$31,611**			**$6,732**	**$20,197**
Year-Over-Year Growth								*-52%*				*1420%*				*-36%*

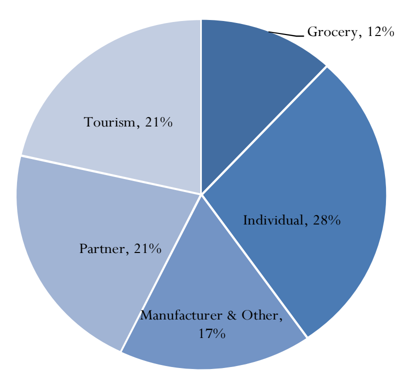
Note: The chart above reflects only direct income from the sale of core product lines, by calendar year. As such, it does not align with revenue figures presented in other charts, which also include unusual and non-recurring income items and were provided in fiscal year. Year-over-year growth for 2013 is based on annualized actual results through April and does not adjust for any product sales seasonality.

- The charts below provide further insight into DE's existing market segments, as defined by I-DEV. Currently, clients are broadly distributed with an unusually high allocation represented by sales to employees of DE or ICIPE, who re-sells the honey under their own, non-affiliated Eco Honey brand. Individual buyers in Laikipia or Maralal represent the largest client segment by # sales.

2012 Market Segmentation Based on Sales (Jan-Dec 2012)

Market Segment	#Clients	Total $US	Avg. Order Value	Median
Grocery	38	$3,573	$94	$59
Individual	223	$8,585	$38	$5
Manufacturer & Other	16	$5,088	$318	$66
Partner	21	$6,463	$308	$21
Tourism	26	$6,464	$249	$75

2012 Market Segmentation by Revenues (Jan-Dec 2012)



DESERT EDGE TODAY: PRODUCT MIX, SALES & MARKETING

► **MARKETING & SALES STRATEGY**

- While Desert Edge has begun to implement objectives of the 2012-2017 Business Plan, it has fallen short of most targets.
  - Key challenges causing this historical trend of shortcomings against targets are:
    - Poor leadership/frequent leadership turnover, which causes strategy confusion on who guides strategy
    - Dependence (thus, waiting) on funders to determine and approve future strategy
    - Poor ability to implement among 2nd tier staff members
    - Lack of clarity/insight into market segmentation, customer demand, or any clearly defined strategy to sell into any defined market what so ever

Success?	2012-2017 Sales & Marketing Targets	Actual (as of May 2013)
	• Poster advertisements in shop windows & large banners for exhibitions	• 25 posters in local stores • $US 443 in revenues from Phytohealth products since posters placed • Staff say it has increased demand for Phytohealth products
	• Formalized strategy for placement of products in Nairobi- distribution agents, Healthy U, Fairts, etc.	• No clear progress • Githinji (backgroudn in marketin at Nakumatt) was hired as Assistant Director of Sales) • 2 Nakumatt stores have agreed to stock Eco Honey • Healthy U has expressed interest in private label sales (no follow up by DE has been made) • Products are no longer offered on consignment for 1st time buyers
	• Weekly sales report by product- track sales to retail outlets, how much sold, payments received, etc.	• Sales by SKU are tracked in Quickbooks • Director of Finance oversees all accounts receivables, and sends invoices 1x per week
	• Revised product distribution & production process- use of white board to track orders, use of vehicle, stock.	• No clear strategy in place.
	• Develop staff incentive scheme.	• No strategy in place.
	• Involve all staff in selling DE products.	• Staff is required to attend shifts at local trade shows
	• Refine the M-Pesa payment system (purchase additional phone, making two phones dedicated for M-Pesa transactions)	• M-Pesa is not used (previous account was in Wren's name) • No other solutions developed to address producer preference for immediate cash payment

Desert Edge Today: Strategic Partnerships

- **Strategic Partnerships**
  - Desert Edge has not been able to execute on or develop any high value strategic partnership to date for a number of reasons, including:
    - Lack of follow through on initial leads with interested buyers or partners.
    - Poor execution on sourcing, quality control, ingredient purchasing and formulation.
    - Excess focus on research/R&D or NGO- partnerships rather than on demand/distribution/buyer relationships.
  - Staff has also commented that the current Program Director is not focused on strategic partnership development, and several high potential opportunities and draft MOUs have gone unaddressed.
  - Maxwell Lumbasi, Production Manager, has led most recent conversations on partnership development. However, it is unclear to various staff members whose responsibility it is to lead in and execute on closing and formalizing partnership development

Current Desert Edge Partnerships

Partner	Role	Details
African Wildlife Foundation (AWF)	Funder	- Original & key funding partner. - A private conservation foundation with significant efforts in the Samburu Heartlands. - Provided KES 20,051,714 (approx. $235,900) in funding to-date, starting in June 2009.
Laikipia Wildlife Forum (LWF)	Funder	- Original & key funding partner, and lead program support at headquarters. - Desert Edge operates as a program under LWF's CEDP program with staff hired via LWF - Program Manager reports to LWF's Community Conservation Program Manager, Josephat Musyima.
Kenya Wildlife Services (KWS)	Other	- Tentative MOU outstanding. - The national governmental institution overseeing policy and certification associated with wildlife habitats, conservation and the certification and approval of wild harvest for products such as aloe secundiflora, which is protected under CITES international endangered species legislation. - Partnership with KWS allows Desert Edge to advise on national conservation and wild harvest policies/protocol and facilitates the certification process for indigenous plant harvest.
ICIPE (International Center for Insect Physiology & Ecology)	Research	- Informal partnership. - A nationally-recognized research institution that provides additional and advanced product and chemical testing, development and research support - Offers discounted product/ingredient chemical testing & analysis to Desert Edge, negotiated ad hoc. - While not via partnership, ICIPE is also a key buyer of Desert Edge's honey, which they repackage and sell under their own Eco Honey label.

Past or Trialed Desert Edge Partnerships

Partner	Role	Details	Contact
EarthOil/ Earthoil Kenya Ltd.	Buyer	- UK based essentail oils & cosmetic ingredients supplier to cosmetic companies - Earthoil Kenya has a partnership with The Body Shop to collect and produce cape chestnut or yangu oil to be used in its products. - Desert Edge trialed the collection and sale of 10 tons of cape chestnut seed in 2010 with success; however, the 2nd order in 2012 from Earthoil was not delivered due to climate & forest fire issues that depleted available supply. - Earthoil is interested to partner again and has ordered 30 tons of cape chesnut seed, but is has concerns about consistent supply & Desert Edge's ability to communicate issues with supply in a timely manner. - Earthoil processes its own oil, which may limit value chain addition opportunities for Desert Edge	Catherine Etale, Logistics Manager. Catherine.Etale@Earthoil.com
Cinnabar Green Ltd.	Buyer	- A small natural cosmetics and essential oils company based in Nanyuki, and run by Penny Horsey. - Products offered include cape chestnut oil, avocado oil, bath soap, body lotion, massage oils, and a series of other products being sold in Healthy U and other health & lifestyle chains in Nairobi. - Helped Desert Edge to procure imported essential oils and other ingredients for its trialed products in 2012. - May be more strategic opportunities beyond economies of scale in bulk buying for the two to partner on.	Penny Horsey, 0733 747 848
SNV	Capacity Building	- Netherlands-based development NGO that aims to alleviate poverty by enabling increased income and employment opportunities and increasing access to basic services. - Active in the Laikipia region and has worked with Desert Edge to provide technical and communtiy training on honey - May be opportunities to collaborate to create efficiencies in capacity building/develop scalable local indigenous product supply chains.	
World Vision	Capacity Building	- An Evangelical Christian relief, development and advocacy organization dedicated to working with children, families and communities to overcome poverty and injustice. - Desert Edge has partned with and is currently working with World Vision on capacity building for bee keepers. - May be opportunities to further formalize this partnership and streamline efforts to create greater efficiencies in honey and other supply chain development.	Mr. Emmanuel Fondo, efondo@wv.org
Laikipia Aloe	Strategic Sales & Formulation Partner/ Buyer	- A small locally-based aloe lotions, soaps and creams company owned by Maria Dodds. - In 2012, Dodds was contracted to help formulate the Aloe Gold line of night cream and lotion products that Desert Edge - Aloe Gold products were well-received in trial sales at local trade shows and Dodds knows clients/venues that would like to buy her products but that she cannot supply to given current capacity, opening an opportunity for Desert Edge to become their supplier. - Dodds is open to partnering with Desert Edge going forward, but concerned that they will not adhere to the terms of a contract. - Past experience was mixed since Desert Edge purchased the wrong essential oils and delivered moldy aloe gel that could not be used, requiring Dodds cover the costs of ingredients sourcing. - Open to additional discussions & extending her UK-based product formulation expert to Desert Edge's future product development.	Maria Dodds, 0721 440 941, doddskenya@gmail.com
Indfrag India Ltd.	Buyer	- An Indian manufacturer of essential oils and other cosmetic ingredients. Clients include L'Oreal. - Phillip Samuel, CEO, tested samples of wild collected dried olive leaf sent by Desert Edge in early 2012, absorbing a cost of KES 200,000 associated with testing to define plant reference standards. Quality of samples was good and he is interested to purchase volume supply of dried olive leaf from Desert Edge/build out their local supply chain by providing capacity building support and financing. - Desert Edge never followed up on the order request. - Interested to buy dried olive leaf, which would be processed into extract in India, which may limit value-addition opportunities for Desert Edge	Philip Samnuel, psamuel@indfrag.com
Ministry of Cooperative- Laikipia District	Capacity Building	- Ongoing, informal partnership that includes capacity building for local community groups. - Ministry of Cooperative will co-sponsor some training activities.	Mr. Muligu

- **SUPPLY CHAIN DEVELOPMENT & IMPACT**
  - **Supply Chain Dynamics**
    - Desert Edge has 5 regions its covers through its 5 extension officers: Laikipia West, Laikipa East, Laikipia North, Laikipia Central, and Kirisia/Samburu.
    - Approximately 15-17 of 49 community groups with whom Desert Edge works have sold their products to Desert Edge.
    - **Desert Edge has very poor and fragmented systems for data collection and tracing of field activities**
      - Desert Edge does not track capacity building costs per unit production or any other line items related to field operations.
      - Desert Edge does not monitor or restrict transportation among extension officers, yet covers monthly fuel costs.
    - **Informal and inefficient training & field extension services**
      - No formal training protocol/agenda, weekly schedule of activities or milestones are set for extension officers or Director of Bee Enterprise.
      - Extension officers interviewed said 75-80% of their week is spent visiting community groups in their region, while remaining time is allocated for field data collection and reporting.
      - Field activity cannot be tracked due to poor phone signal and no existing tracking systems, e.g. android apps to track community group data or location of the extension officer.
    - **Field training & capacity building offered by Desert Edge consists of:**
      - 1 training (3 days)/month/region on sustainable harvest & wild harvest/organic certification, led by Director of R&D and the extension officer
      - 1-2 trainings (3-5 days each)/month/region on beekeeping best practices and other processing, led by Production Manager or Director of Bee Enterprise.
      - 75-80% of extension officers' time spent visiting community groups, teaching existing groups on best practices, and providing extension services including cleaning, repairing and harvesting hives.
      - Services and training are provided regardless of whether producers choose to sell to Desert Edge, and all costs for training are absorbed by Desert Edge.
    - **Failure to establish collection centers resulting in inefficient and expensive collection of honey**
      - Desert Edge has significantly fallen short in developing out local collection centers, which would drive cost savings and efficient honey collection.
      - Existing collection centers were created by other NGOs and engaged by Desert Edge through Njuguna, Director of Bee Enterprise, who previously worked for SITE, the UK NGO who built them. Otsua is the largest collection center with 5 tons capacity; however, it has no loyalty to Desert Edge and will sell honey to the highest bidder.
      - Ethno-botanical site may be a potential collection site that could be run by Trial Site Manager; however, success would largely depend on ability to pay producers competitive prices and in immediate cash payment.

- In early 2012, Desert Edge invested in Kimajo, a collection center that immediately failed due to its location near heavy competition from other willing buyers who would pay premium prices for local consumption.
- **Honey & Beeswax:**
  - Total capacity of 6.2-6.5 tons/month. DE has two honey processing facilities that it runs- its main facility in Nanyuki (~1.6 tons/month capacity) and its second facility in Maralal (Samburu) (approx. 4.8 ton/month capacity) that is owned by a local community group, Samburu Beekeeping Cooperative, but rented by Desert Edge who runs processing and sells its supply of honey throughout the Kirisia/Samburu region.
  - Honey producers selling to Desert Edge do not translate the value created from pro bono extension services provided into a willingness to sell for lower prices or exclusively to Desert Edge. Yet, beekeepers say they would not be producing honey without Desert Edge's field support.
  - DE purchases comb honey for KES 185/kg or organic honey for KES 200/kg.
  - On average, 80% of beekeepers are certified or in the process of becoming organic, a very positive result that Desert Edge has been critical in developing. However, this value proposition has not been transferred to customers in the form of premium pricing or promotions of the certification.
  - **Honey producers network by sales to Desert Edge** (according to interviews with extension officers & Director of Bee Enterprise- accuracy of information should be further verified):
    - None of the 16 beekeeping groups in Laikpia West sells honey to Desert Edge; however, the extension officer believes they may sell to others.
    - Two of 8 beekeeping groups in Laikipia North sell to Desert Edge.
    - Four of 7 beekeeping groups in Laikipia Central sell honey to Desert Edge.
    - Six of 7 beekeeping groups in Laikpia East sell honey to Desert Edge.
    - Three of 10 beekeeping groups in Kirisia sell honey to Desert Edge.
- **Stinging Nettle:** One community group in Laikpia North has sold 1 order of dried stinging nettle (100% collected) to Desert Edge. DE has only purchased 160 kg to-date; however, there is an abundance of stinging nettle in the region. The community is paid KES 500/kg of dried leaf.
- **Aloe Secundiflora:** One community group (25 members) in Laikipia Central sold 1 order of wild harvested aloe (100% collected) to Desert Edge. DE has purchased 2000 kg of aloe leaf in the past, which was used in trial development of aloe creams and lotions. DE pays 30 kg/leaf and absorbs the cost and labor time associated with stabilization to avoid mold.
- **Seketet:** One community group (25 members) in Kirisia sold 1 order (20 kg) of seketet (100% collected) to Desert Edge. Seketet is also abundant in Kirisia and Samburu; however, no clear figures on total volume were available. DE pays KES 350-400/kg of dried seketet, depending on whether the product will be delivered by the community or if DE will collect it.
- **Cape Chestnut Seed:** One community group (unknown number) in Pirisha Forest (Laikipia South) sold 10 tons of seed to Desert Edge in 2010. DE pays KES 25/kg to the community.

- **Social/Environmental Impact**
  - No formal data collection system or defined metrics are being used. Items mentioned in business plans are not tracked:
    - Baseline household income for target communities
    - Increase in household income generated from Desert Edge's support (capacity building or sales to the company)
    - # of new groups formed (informally, tracked in each updated business plan)
    - # of hours of training per community group
    - Improvement in overall health of natural resources
    - Improvement in species diversity
    - Improvement in re-growth of natural resources
  - General information on community groups receiving capacity building, # of men, # of women are tracked; however, only partial, inconsistent information is available. The M&E Officer is working with extension officers to train them on improved data collection and accurate record keeping. New database developed will track community groups by region, # of hives, # by type of hive (top bar vs. langstroth vs. log or other), colonization (# colonized), aloe hectares, monthly income from each product produced per producer group, if & where collecting seketet/nettle.

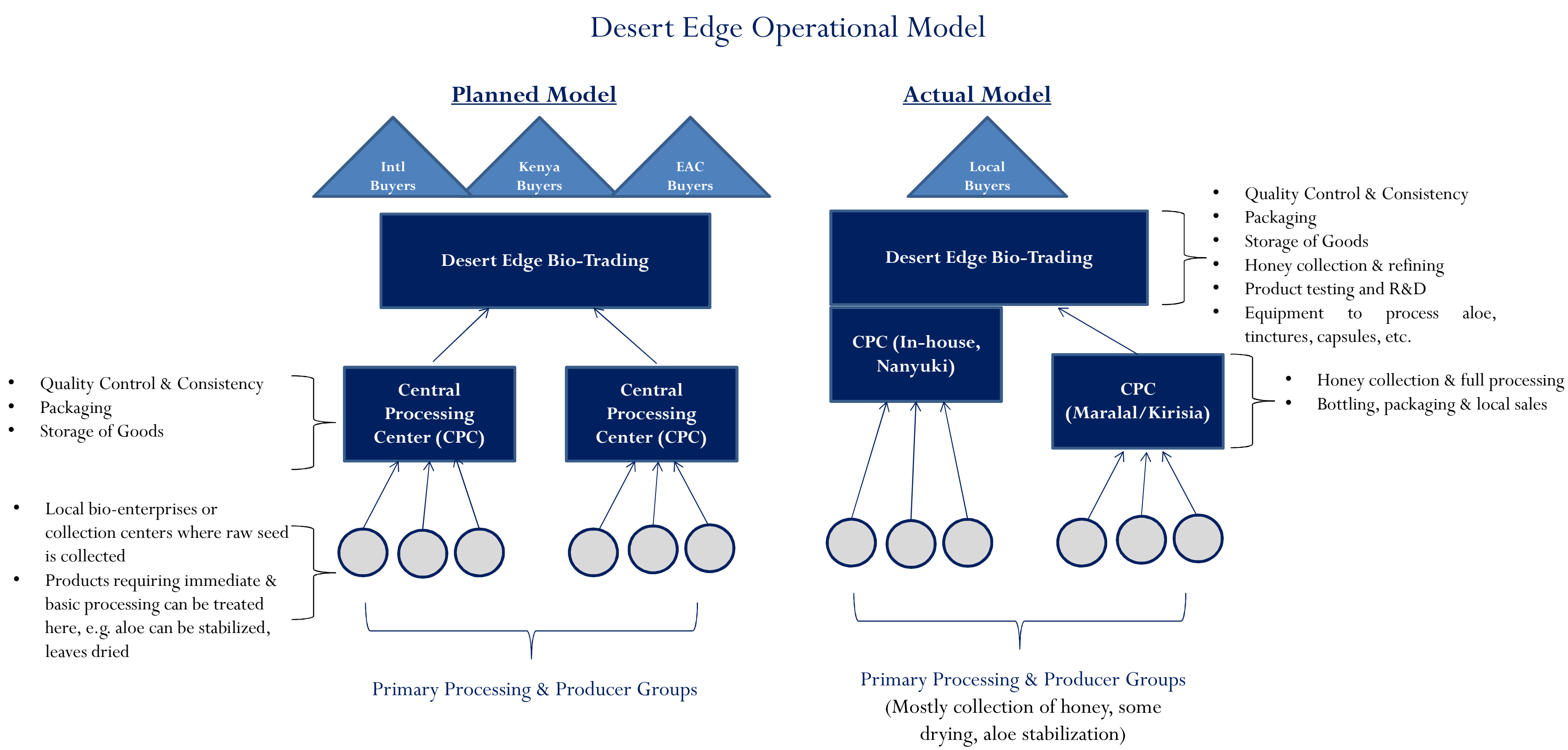
Community Groups Receiving Capacity Building
From Desert Edge/CEDP

Summary	Actual (May 2012)	Target (YE2014)
Total # of Groups	49	120
Beekeeping	37	
Aloe	9	
Nettle	1	
Cape Chestnut	1	
Croton Nut	0	
Other	1	
Total # of Members (active)**	1594	2500
Total # of Women	715	
% of Women	*45%*	*50%*
Total # of Men	630	
% of Men	*55%*	*50%*

*Note: Target figures are based on the 2011-2016 or 2012-2017 business plans and their targets as of Phase 2, which was targeted to begin in 2011 and complete in 2014.

**Note: Break out of figures by gender as well as total # of members (active) is based on partial information since full data has not yet been tracked or collected by Desert Edge.

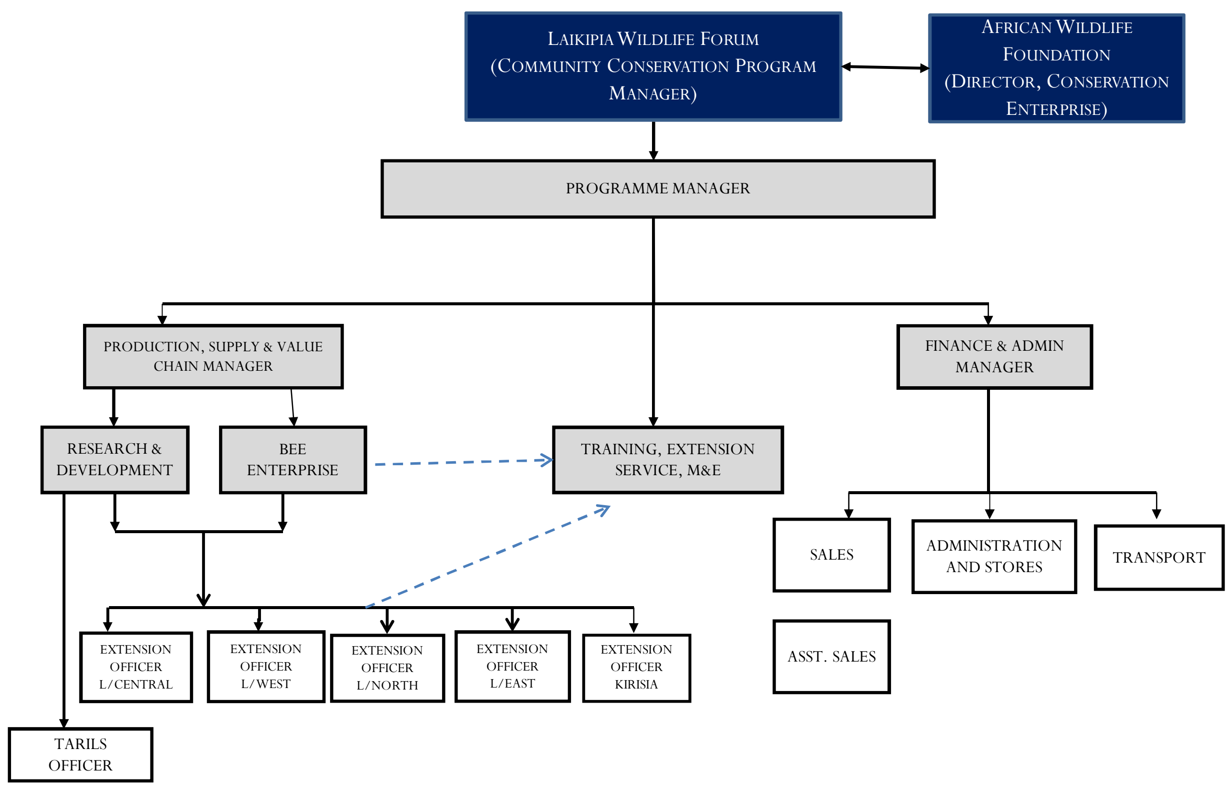
- **OPERATIONAL MODEL**
  - Desert Edge operates under a model similar to its original vision; however, as mentioned, it has fallen short in 3 key areas:
    - Train community groups on proper semi-processing and quality control (e.g. aloe fillet stabilization or proper drying to % moisture content required)
    - Establish a network of collection centers for honey (or other products)
    - Develop strong relationships with dedicated buyers, especially beyond the Laikipia/Samburu region



DESERT EDGE TODAY: ORGANIZATIONAL STRUCTURE & OPERATIONAL MODEL

- **CURRENT ORGANIZATIONAL STRUCTURE – IS DESERT EDGE A COMPANY OR AN NGO?**
  - Desert Edge operates and is managed as an NGO development program that is heavily monitored and constrained by LWF.
    - Monthly reporting on CEDP & Desert Edge spending
    - Required approval by LWF for expenses over KES 50,000
    - Regular mandatory program meeting & event attendance
  - Mixed for-profit and non-profit objectives cause constant confusion and indecisiveness
  - No KPIs (Key Performance Metrics) or incentive structures to direct employees or gauge their performance has led to disengaged and passive staffers
    - Employees have no incentive to perform
    - Creativity and sales-based experimentation is inhibited
    - Cost efficiency is not encouraged
    - Recommendations and action items are often abandoned at the senior level due to unclear goals or clear final decision makers- is it LWF or the Program Manager who makes a final strategic decision, and gives the go ahead?

Organizational Structure of Desert Edge



- **CURRENT STAFF & SALARIES**
  - Desert Edge continues to have a large staff, even after the 2012 restructuring, which was intended to reduce company costs.
  - Given its current sales and level of activity, 15 dedicated staff members is excessive.
  - Many functions, roles and responsibilities overlap between senior staffers
    - Five extension officers is excessive given the current volume yields of 5-7 tons comb honey per year
  - Director of Bee-enterprise, Production Manager and Director of R&D feel they must attend the majority of trainings to ensure quality control, which suggests a lack of ability or effort to adequately train extension officers to absorb these responsibilities or ability of extension officers to manage the responsibility

Desert Edge Staff & Salaries

Name	Title	Annual Salary	Annual Salary ($US)	Salary/Mo. ($US)
Eric Okwach	Program Manager	KES 1,920,000	$22,588	$1,882
Maxwell Lumbasi	Production Manager	KES 1,800,000	$21,176	$1,765
Adams Kipkorir	Finance Officer	KES 840,000	$9,882	$824
David Njuguna	Head of Beekeeping	KES 780,000	$9,176	$765
Nixon Elachi	Head of R&D	KES 660,000	$7,765	$647
Anthony Onyango	M&E Officer	KES 600,000	$7,059	$588
David Mutaro	Extension Officer - Laikipia West	KES 540,000	$6,353	$529
Ronald Lelekoitien	Extension Officer - Kirisia/Samburu	KES 540,000	$6,353	$529
Dorothy Katungwa	Admin Assistant	KES 360,000	$4,235	$353
David Githinji	Asst. Head of Sales	KES 300,000	$3,529	$294
Gabriel Mwangi	Extension Officer - Laikipia Central	KES 300,000	$3,529	$294
Francis Yiangere	Extension Officer - Laikipia North	KES 300,000	$3,529	$294
Joseph Kisio	Extension Officer - Laikipia East	KES 300,000	$3,529	$294
Robert Kiprono	Driver	KES 240,000	$2,824	$235
Solomon Changwong	Trial Site Assistant	KES 120,000	$1,412	$118
Total		**KES 9,600,000**	**$112,941**	**$9,412**

- **ANALYSIS OF SENIOR STAFF**
  - The following chart is I-DEV's assessment of key staff time, based on individual and group interviews.
  - Poor internal tracking of employees or time makes it challenging to assess true operations efficiencies. Furthermore, lack of data tracking in a formal database makes it hard to track improvements in performance.
  - Based on the chart below, the Program Manager and Director of Sales should be dedicating far more time to developing and defining strategic partnerships, especially with buyers.
    - This has not been a priority to Okwach, in particular, leaving Lumbasi, Director of Production, leading most partnership development and exploration.
    - Githinji, while focused on sales, has failed to take a broader macro-level perspective on analyzing Desert Edge's future sales opportunities, which may also be a more effective use of his time than processing/labeling honey and delivering honey orders to small one-off retailers.

- Director of Bee-Enterprise should spend less time in the field, and more time training Extension Officers to work with community members
- R&D is an unnecessary dedicated function for such a small firm.
- M&E/training is an unnecessary dedicated function for such a small firm.

Staff Use of Time (Based on Interviews)

Name	Title	TA/Field	Biz Dev/Sales	Processing	R&D	Admin/Finance
Eric Okwach	Program Manager	0%	20%	0%	0%	80%
Maxwell Lumbasi	Production Manager	10%	50%	0%	25%	15%
Adams Kipkorir	Finance Officer	0%	0%	0%	0%	100%
David Njuguna	Head of Beekeeping	60%	0%	40%	0%	0%
Nixon Elachi	Head of R&D	30%	10%	0%	50%	10%
Anthony Onyango	M&E Officer	25%	0%	0%	0%	75%
Dorothy Katungwa	Admin Assistant	N/A	N/A	N/A	N/A	N/A
David Githinji	Asst. Head of Sales	0%	55%	20%	0%	25%
Ronald Lelekoitien	Extension Officer - Kirisia/Samburu	N/A	N/A	N/A	N/A	N/A
Gabriel Mwangi	Extension Officer - Laikipia Central	80%	0%	0%	0%	20%
Francis Yiangere	Extension Officer - Laikipia North	80%	0%	0%	0%	20%
Joseph Kisio	Extension Officer - Laikipia East	80%	0%	0%	0%	20%
David Mutaro	Extension Officer - Laikipia West	80%	0%	0%	0%	20%
Robert Kiprono	Driver	N/A	N/A	N/A	N/A	N/A
Solomon Changwong	Trial Site Assistant	100%	0%	0%	0%	0%

► **BOARD OF DIRECTORS**

- The current board of directors only has 3 official voting members. There is currently no formal board representative from AWF or DE.
- Suzie Wren and Delphine King were previous leaders active on the board; however, Suzie Wren, in particular chose to leave it in 2012 when she felt the company was losing direction and no longer following the path that she had anticipated for it. Without Wren or King, DE has further strayed from its mission and vision, and most importantly, from the sense of enthusiasm and drive that Wren was instrumental in creating for the entire team, even if at times, it may have been overly ambitious and lacking in financial or business rigor.
- DE would significantly benefit from some strong leadership and monitoring on achievement of target results from a new and proactive board.
- Groom and Ogada have provided some ongoing support, but additional visionary leadership and clear monitoring is required. Furthermore, while Josep Oriel provided financial expertise, he has been largely unengaged in DE. Going forward, DE must include proactive and external business-minded board members that have an interest in seeing Desert Edge succeed.

Desert Edge Board of Directors

Name	Title & Affiliation	Status
Dr. Mordecai Ogada	Executive Director, Laikipia Wildlife Forum	Active/ Based locally
Jenny Groom	Consultant, Conservation Capital	Active/ Based locally
Josep Oriel	Verde Ventures Board Representative/Ciel Capital	Inactive/ Not local

DESERT EDGE TODAY: FINANCIALS

► **FINANCIAL SITUATION**

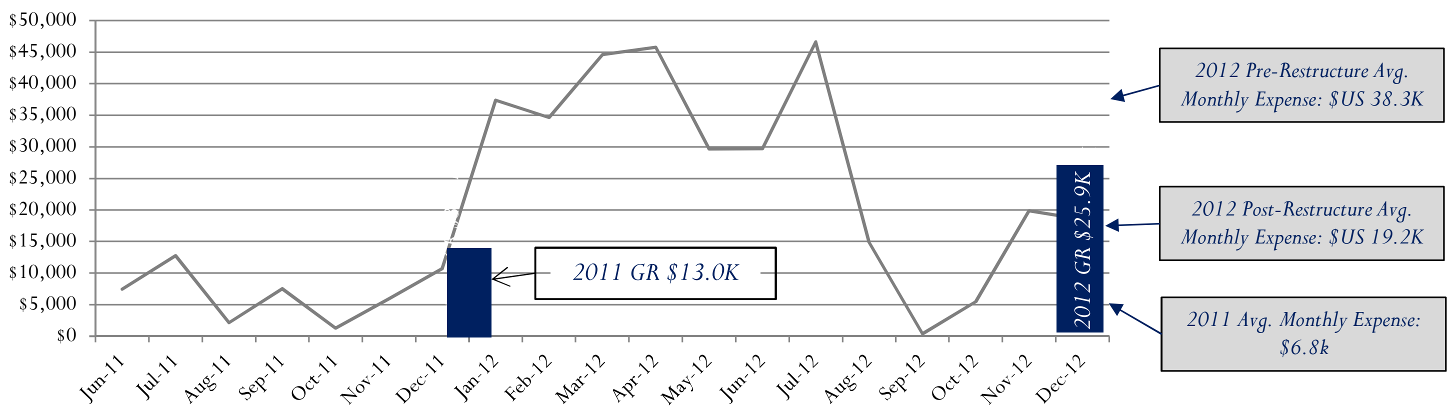
- DE has suffered from a history of high costs that were not properly tied back to financial results or sales targets.
  - This was a key driver of the 2012 restructuring, which was initiated by LWF under Ogada's recommendation. While the restructuring was critical to reducing high overhead and staffing costs, there is significant opportunity for additional cost savings.
- Given DE's current production and sales volume, the company still suffers from high labor costs and a large dedicated staff of 15.
  - Key recurring spikes in costs were associated with high expat salaries paid to MacWilliams and Dodds. Each of their salaries were ~2.4x that of Okwach, the present Program Manager, and there is no indication that the company performed better under previous leadership.
  - Under MacWilliams' leadership, DE hit an all-time high in monthly burn rate or expenses, largely due to increase salaries, hire of outside consultants on new product development/supply chain development and higher purchasing costs for honey.
- Desert Edge's historical financials indicate a need for a new accounting system and auditing firm since line items were often misplaced and audited financials indicated Desert Edge has been profitable when it has not.
  - Inaccurate reporting is largely due to misallocation of grant funding received, which is treated as revenue.
  - While I-DEV has found no evidence of intentional misreporting, we recommend that a forensic accountant or other accounting expert be hired to review current reporting practices.

Historical Spikes in Expenses

	Date	Line Item	$US 000's
1	**Jul-11**		
		Motorbike	$4.5
		Refinery Construction	$1.0
2	**Jan-12**		
		Staff Salaries	$6.1
		Essential Oil Purchase	$4.8
		Tom M. Salary	$3.3
		Anthony D. Salary	$3.3
		Staff Health	$3.1
		Hilary S./Arbor Oils Consult	$2.8
3	**Mar-12**		
		Staff Salaries	$7.0
		Tax Deductions PAYE	$4.3
		Tom M. Salary	$3.3
		Anthony D. Salary/Mileage	$6.0

	Date	Line Item	$US 000's
4	**Apr-12**		
		Staff Salaries	$7.0
		Tax Deductions PAYE	$4.3
		Tom M. Salary	$3.3
		Anthony D. Salary	3.3
5	**Jul-12**		
		Tom M. & Anthony D. Salary N/D '11	$17.4
		Staff Salaries	$7.9
		Tom M. Salary	$4.8
		Tax Deductions PAYE	$4.0
6	**Nov-12**		
		Staff Salaries	$4.3
		Hilary S./Arbor Oils Consult	$2.7
		Eric O. Salary	$1.4
		Web Development	$1.0

Monthly Burn Rate Vs. Revenue ($US)



INCOME STATEMENT	2012		2011	
Fiscal Year End May 31	KES	US$	KES	US$
REVENUE				
Bio-Conservation Sales	2,198,008	$25,859	1,106,152	$13,014
Shipping & Delivery Income	169,541	$1,995	-	$0
Cost of Sales	(1,310,352)	($15,416)	(1,031,578)	($12,136)
GROSS PROFIT	**1,057,197**	**$12,438**	**74,574**	**$877**
EXPENSES				
Personnel	(8,353,911)	($98,281)	(333,419)	($3,923)
Office	(2,858,561)	($33,630)	(1,445,568)	($17,007)
Transport	(3,036,325)	($35,721)	(296,136)	($3,484)
Training	(271,790)	($3,198)	-	$0
R&D	(1,529,921)	($17,999)	(2,301,188)	($27,073)
Finance	(158,823)	($1,869)	(31,331)	($369)
Marketing	(176,504)	($2,077)	(482,931)	($5,682)
Production	(595,833)	($7,010)	(1,058,178)	($12,449)
Professional	(1,137,855)	($13,387)	(505,620)	($5,948)
Donations	-	$0	(14,349)	($169)
Depreciation	(1,789,906)	($21,058)	(1,976,245)	($23,250)
TOTAL EXPENSES	**(19,909,429)**	**($234,229)**	**(8,444,965)**	**($99,353)**
PRE-DONATION PROFIT/(LOSS)	**(18,852,232)**	**($221,791)**	**(8,370,391)**	**($98,475)**
DONATIONS	**19,503,034**	**$229,447**	**16,037,215**	**$188,673**
POST DONATION PROFIT/(LOSS)	**650,802**	**$7,656**	**7,666,824**	**$90,198**

360 Degree SWOT Analysis

SWOT- Producers & Supply Chain

Strengths

- **Well-established honey & beeswax supply**
  - **Solid volume of honey & wax.** The current DE supply chain can achieve 8-10 tons of comb honey per year. Furthermore, there are over 5,000 log hives in Laikipia North and East alone (excluding Laikipia Central, Laikipia West and Samburu), suggesting a minimum of 50 tons of comb honey produced annually.
  - **Good quality and Organic certified honey (verified by Honey Care Africa).** Around 80% of producers in DE's network are Organic certified, producing around 5 tons of comb honey per year that is sold to DE. Furthermore, honey from certain areas contains additional benefits such as aloin, which is a chemical found with aloe and rich in additional health benefits.
- **Pay higher prices to honey producers than large scale processors.** DE pays KES 185/kg of conventional comb honey and KES 200/kg of organic honey, roughly equivalent to KES 276-KES 328/kg pure honey. The average pricing offered by larger-scale buyers, such as HCA and Kate's Organics, ranges between KES 200/kg and KES260/kg pure honey.
- **Abundance of wild croton nut.** The Laikipia region of Kenya is abundant in croton trees, making the nut readily accessible by most smallholder producers. Estimated 30-50mm croton nut trees growing wild in Kenya, with 25-50kg of seeds per tree, which is equivalent to 750,000 tons of seed and over 250,000 tons of oil. In the near future and area surrounding Nanyuki, DE could collect an estimated 1-5 tons/day. A yield of 20 tons/day is demanded and is likely available from the greater Laikipia region. Croton nut is easily harvested and collected throughout the year with no variance in quality of nut.
- **Abundance of wild cape chestnut.** Approximately 3-5mm cape chestnut trees grow wild in Kenya, with a future potential of 60 tons of seed per year or 12 tons of oil (at 20% yield) that could be produced. DE was successful in havesting 10 tons from the wild in 2010, and has committed to a new order of 30 tons this year, suggesting high volume potential. Furthermore, cape chestnut seed does not vary in quality, thus there is limited losses in prodcessing.
- **Abundance of wild aloe secundiflora.** Laikipia is rich in local varietals of aloe, including secundiflora, which is identical to the popular Aloe Ferox, marketed througout South Africa. An estimated 8 tons of aloe gel and fillet is currently available in Laikipia, not including if the region were to begin farming it. DE has partnered with KWS to ease the process of wild harvest certification, mandated under international CITES legislation to protect threatened species.
- **Significant overlap in supply chains across products.** Croton nut, cape chestnut, aloe secundiflora, seketet and honey/beeswax thrive in overlapping geographies, creating broad opportunities for mixed sourcing and capacity building/supply chain efficiencies.
- **Piloted a broad range of ethnobotanical products for local cultivation in their trial sites.** DE's trial site has piloted the growth and cultivation of many products, while 9 of these products have been tested in detail at their lab, and 7 of these processed and sold as finished goods.
- **Limited competition for aloe, seketet and cape chestnut purchase.** DE has established exclusive sourcing arrangements with select community groups, who have not found alternative buyers for plant products. A number of the beekeeping groups that do not sell honey to DE, but that receive capacity building services, are able to collect wild harvest species and would do so exclusively for DE.

SWOT- PRODUCERS & SUPPLY CHAIN (CONTINUED)

WEAKNESSES

- **Significant competition from local buyers of honey.** Producer loyalty is largely driven by who will pay the highest price for comb honey. Local honey brewer, middle men traders and the local markets, in particular Isiolo, offer steep competition at prices of KES 300-400/kg of comb honey. Because of working capital constraints, DE cannot even compete by offering to purchase 100% of producer supplies, which might entice them to sell for less. Furthermore, producers do not place a value of the extensive field extension services offered by DE that has enabled them to produce more honey to sell.
- **Broad geographic coverage & un-clustered sourcing.** Some extension officers cover an area of over 200 km between community groups to whom they provide capacity building and collection of honey, in part because DE has failed to establish localized collection centers. Distance combined with disorganized site visit schedule and lack of data collection, e.g. to inform extension officers on upcoming honey harvest dates has resulted in high transportation costs and inefficient use of time.
- **High supply chain sourcing costs.** DE currently absorbs all the costs associated with capacity building, honey and other product collection, and transportation to their processing facility.
- **High prices paid to honey producers makes profitability challenging.** DE currently pays higher prices than many of its larger-competitors such as Honey Care Africa, which can increase cost per unit and profitability. Even at KES 185-200/kg comb honey, DE is only able to buy 20-40% of total honey produced within its existing beekeeping network. If DE cannot reduce its price to farmers (without losing their loyalty), partnership with buyers and profitability will be hard to achieve.
- **Full regional supply potential for products has yet to be tested at scale.** DE anticipated an increase in honey purchase from roughly 5 tons to 25 tons in 2011, according to the Verde Ventures investment memo. However, only 5-7 tons was purchased in 2012, falling short of targets and indicative of DE's ongoing struggles to manage growth or full implementation.
- **Sufficient supply chain volume potential with limited existing sourcing network.** While Laikipia and Samburu are rich in natural resources, DE or other have yet to build a formal sourcing network or collection centers to enable scalable and cost-effective sourcing.
- **High vulnerability to seasonality, climate & weather.** Honey/beeswax, cape chestnut and olive leaf are particularly sensitive to climate factors and cyclicality, while aloe and croton nut are more robust and harvested year-round.
- **No formal supply chain development has been implemented on trial site plants.** While DE's trial site has an abundance of different plant species being grown in small quantities, no formal testing among communities has been conducted to assess the feasibility of an out grower scheme for scalable production.
- **Working capital constraint prevents additional purchase of available honey.** One of DE's greatest constraints is working capital that will allow them to purchase high volumes of product in exchange for a lower price per kg. DE received a $US 30,000 working capital loan from Verde Ventures in 2011; however, that has since been spent and the additional $US 45,000 of the loan was never dispersed due to DE's inability to hit its revenue targets.

SWOT- PRODUCERS & SUPPLY CHAIN (CONTINUED)

OPPORTUNITIES

- **Improve supply chain sourcing model/process to be more efficient and reduce costs.** DE should conduct a comprehensive supply chain model analysis and re-design its existing operations and structures to align with goals of achieving profitability and a dedicated supplier network that will allow the company to scale.
- **Significant opportunity to increase volume of honey purchase in near future.** Offering immediate cash payment and large volume purchase would increase producer loyalty to DE. Incentive and benefit schemes to exclusive producers/sellers might also increase volume sales.
- **Increase sourcing efficiencies for trialed products through formal supply chain development.** High production costs for Phytohealth products could be reduced if overlapping geographies and suppliers were targeted. Focus on a partnership with Community Forest Associations would also allow DE to reduce costs of wild harvest certification and group formation.
- **Reduce costs by reducing raw material purchasing prices.** Reduce raw material costs by purchasing ingredients in bulk, offering cash payment or mobile payment upon delivery to reduce purchasing price. Honey Care Africa is targeting purchase price of KES 140/kg for comb honey for its dedicated supplier network, and justifies the price by guaranteeing 100% purchase of all honey produced. This compares to KES 185/kg that DE currently pays.
- **Invest in development of dedicated collection points & instant cash transfer to producers.** Formal roll out and promotion of honey collection points where producers are guaranteed 100% purchase- in cash- of honey produced would reduce DE's high capacity building costs and allow for more efficient collection. Sites can be promoted as guaranteed year-round buyers since addressing producer concern with immediate sale & payment. DE can re-introduce M-Pesa payment to producers to offer safer payment.
- **Improve collaboration with local NGOs to reduce supply chain development costs.** Partner with NGOs (SNV and World Vision, who operate locally) to merge capacity building and community training efforts.

THREATS

- **Competition from local honey brewers & traders who offer higher prices.** Strong competition from local buyers who are willing to pay KES 300-400/kg of comb honey.
- **Reduced producer willingness to sell and volume if DE reduced its pricing to farmers.** Some producers may prefer to sell for higher prices/kg versus a guaranteed price offered by a reliable & consistent buyer.
- **Competition from local croton nut & cape chestnut processors.** EcoFuels Kenya, a Naro Moru- based biofuel and organic fertilizer producer that relies heavily on croton and cape chestnut, offers KES 7/kg of croton nut and KES for Cape Chestnut seed. It has a formal network of collection centers to buy these products from communities that overlap with DE's target region; however, it has also suggested interest to partner with DE to access a greater supply of goods.
- **Climate change and weather patterns.** Honey and cape chestnut are highly sensitive to climate change and other environmental factors.

SWOT- Processing & Production (continued)

Strengths

- **Quality production facilities.** Two operating honey processing facilities in Nanyuki & Maralal (Kirisia) are well run.
- **KEBS certified in honey, seketet, and stinging nettle.** DE has successfully acquired KEBS certification for the 7 products it currently sells and is in the process of finalizing KEBS certification of its aloe lotion and cream.
- **In-house R&D lab to conduct basic testing locally.** Full-operational in-house testing lab, where standard quality control tests and new product experiments can be conducted.
- **In-house basic processing equipment for capsules, tinctures and aloe production /processing.** Semi-processing (grinding of aloe, seketet, nettle) can be done in DE's Nanyuki lab, which reduces company reliance on outside processors to process certain goods. Access to such equipment allows DE to conduct new product development experiments and formulations in-house.
- **A leader in wild harvest practices & protocol in Kenya.** DE played a key role in establishing the first sustainable wild harvesting protocol for wild olive leaf in consortium with government including NMK, KWS and DRSRS. Close partnership especially with KWS to pioneer wild harvesting protocol and lead in FairWild certification establishment in Kenya.
- **Substantial honey processing capacity.** Between its 2 facilities, DE can process roughly 6.5 tons of honey per month. Its 2 local facilities allow for more cost effective local sales of refined honey**.**

SWOT- Processing & Production (continued)

Weaknesses

- **Small production volumes compared to competitors.** DE currently produces small quantities of honey/beeswax and even smaller quantities of other products, making it challenging to take advantage of economies of scale or to access large volume buyers such as Nakumatt, Uchumi and other retail chains.
- **Costs per unit for product exceed profit for honey.** DE currently loses money on its core sales product; the 500 g jar of honey, due to high labor costs and high costs of comb honey paid to producers. Furthermore, ~80% of DE's honey supply is certified organic and producers are paid a premium of KES 200/kg for it, despite the honey being mixed with non-organic upon arrival to the processing facility and sold as non-organic.
- **No scaled production of products other than honey.** DE has yet to demonstrate its ability to produce products other than retail honey on any significant scale. All non-honey products have only been trialed and processed once then sold in small scale on the local market and at fairs.
- **High costs associated with R&D and lab with limited demonstrated return.** DE has spent an significant capital including 50% of Director of R&D's time and 25% of the Production Manager's time dedicated to newn product development and approvals.
- **Unclear expertise in product formulation.** While Lumbasi and Elachi have some past product formulation experience, DE has focused on specific, limited lines of products on developing (food grade nutraceuticals and scented lotions). DE has relied on outside consultants such as Maria Dodds, Laikipia Aloe, to formulate and produce sample aloe lotion products. This type of expertise would need to be readily available to DE, and ideally in-house, if the company were to scale production and sales.
- **Lack of attention to detail or careful oversight needed for proper semi-processing.** Currently, Lumbasi and Elachi feel they must carefully oversee the chemical stabilization of aloe fillets and other fairly simple processing activities that should be undertaken by the community groups. The two say that extension officers lack attention to detail and attempts at passing this responsibility off to field staff in the past resulted in contaminated, moldy aloe.
- **Unclear focus on product development targets.** DE has considered a long list of potential products, and in doing so, has prematurely purchased equipment that it may never use. For example, DE has a capsule machine to encapsulate aloe and other ground products for sale as nutraceutical supplements. In the future, DE should test the market demand and research existing comparable products before investing in miscellaneous trials.
- **No equipment to process value-added oils.** While croton nut and cape chestnut are abundant natural resources in the target region, the real value add that both products pose are in processing and sale of oil. Currently, DE does not possess the screw press that would be used, and has relied on purchase of oil from its neighbor, EcoFuels Kenya.
- **No equipment to package tea.** DE currently outsources tea bag production to a Nairobi company, which adds costs in transportation and outsourced processing.

SWOT- PROCESSING & PRODUCTION (CONTINUED)

OPPORTUNITIES

- **Additional processing capacity to allow for rapid growth.** DE has idle capacity, processing only 5-7 tons of comb honey per year (practical capacity: 6.5 tons per month).
- **Aloe KEBS certification will allow DE to lead in sale of domestic varietal.** There has been no formal market for aloe secundiflora established anywhere to-date, largely due to restrictions imposed by CITES that has restricted harvest and export of all aloe species other than aloe vera/barbadensis. DE has a greater opportunity to build brand recognition behind Aloe Secundiflora (similar to Aloe Vera or Aloe Ferox).
- **Equipment to produce additional nutraceutical or food products.** DE has an encapsulation machine, equipment to produce alcohol-based tinctures, and other ground goods that could be taken advantage of for new DE or community-based product launches.
- **Strategic partnership with processors.** Developing strategic partnerships with local or Nairobi-based processors could save DE money and allow it to scale its production of high quality value-added products rapidly. It may also increase costs of maintaining quality control, especially if the partner adheres to ISO standards. Take advantage of: Honey Care Africa, EcoFuels Kenya, Kate's Organics, and ICIPE.
- **Acquire equipment to process oils.** DE could acquire a screw press to process cape chestnut seed and croton nut in-house, rather than purchase from third parties or focus on collection of raw goods whereby processors earn the higher margin on value-addition.
- **Acquire processing equipment to make tea bags.** DE could purchase tea bag and other simple packaging equipment that could be used for production of its own products, as well as for production of community-based products.

THREATS

- **Lower cost, higher volume and/or more efficient processors in Nairobi.** Beyond the immediate areas surround Nanyuki and Marala, DE competes with mostly largely national companies with more sophisticated processing facilities, larger volume production and proximity to a larger buyer market.

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SWOT- Management, Staff & Organizational Structure

Strengths

- **Beekeeping technical expertise.** Through David Njuguna, DE possesses over 30 years of beekeeping and honey/wax processing expertise. Njuguna's past ties to SITE beekeeping projects has led DE's only "success" in partnering with collection centers and large producer groups.
- **Demonstrated interest among staffers to develop a profitable entity.** The majority of DE staffers are committed to building DE as a for-profit, self-sustaining company, recognizing that the current model has fallen short of its business objectives.

Weaknesses

- **Lack of business, finance and marketing leadership.** DE has never had a true CEO to guide the business to profitability. Wren was a good visionary, but lacked the financial or business savvy while MacWilliams only further allowed DE's large staff and high expenses to remain or increase under his leadership. Current and past financial strategic planning and marketing/sales capabilities are also lacking with new hires offering a slight improvement, but not the proactive and macro-level strategic vision and thinking required.
- **Lack of management or other internal systems to ensure accountability.** DE has no formal or organized CRM or other tools to manage operations, sales and monitoring. The company implemented Quickbooks and clearer entry in 2011, which was a good baseline improvement. However, historical entries are confusing and no clear rules were established in clarifying line items entered.
- **Overlapping roles that cause confusion.** There is significant overlap between roles of Program Manager, Production Manager, Associate Director of Sales and Director of Bee Enterprise, as well as disagreement on priorities for DE, resulting in a lack of cohesion and inability to execute.
- **Conflict between CEDP's non-profit objectives and DE for-profit objectives.** DE's team is split and constantly conflicted between trying to achieve both non-profit conservation and community skills training for their benefit and a profitable self-sustaining business with a dedicated supplier and buyer network. To date, the culture and objectives of CEDP has outweighed those of DE, as mentioned, due to the structure housed under LWF.
- **No incentive structures or ownership to drive results.** DE employees currently operate in a directionless manner, having no clear or specific metrics or upside to drive their focus. Furthermore, LWF is perceived as providing a safety net in funding and resources.
- **Large staff with high salary costs.** DE has a 15 person staff, and annual salary cost of $US 112,941 despite revenues of only $US 25,859 in 2012. Despite salaries to many employees being quite low, the large staff costs make profitability for DE virtually impossible at this stage of maturity.
- **Inability to execute.** DE's leadership has failed to execute on scaling its sales, sourcing or production. Key challenges underlying this include unclear/overlapping roles, conflicting personalities, conflicting CEDP/DE objectives, and too many "talkers" vs. "doers," according to feedback from staff interviews and I-DEV's observations. Key conflicts among staff are between the Program Manager and Production Manager, Production Manager and Head of Bee-Enterprise, and M&E Officer and Extension Officers. Supply chain focused staff feel that management does not contribute equally yet gets paid more, while management and office staff feel extension officers lack attention to detail and must thus be micro-managed.

OPPORTUNITIES

- **Separate CEDP and DE.** CEDP and DE have the same staff and office, yet must adhere to two conflicting sets of objectives. The two entities can be separated and work through sub-contracting agreements where appropriate in order to avoid ongoing confusion.
- **Identify a strategic partner that provides the long-term vision and management capabilities that DE lacks.** While I-DEV would recommend a change in existing leadership of DE to ensure future success, DE could also benefit from partnership to guide DE. The CEO of the partner company could be placed on DE's board to further solidify the relationship and to ensure aligned priorities.
- **Hire a new management team with for-profit experience and mindset.** DE can replace its senior management with a former business executive or serial entrepreneur, ideally one with experience launching a successful FMCG (fast moving consumer goods) or food/health products company. Most critical gaps to fill are expertise in marketing & sales and related financial management.
- **Roll DE into CEDP, allowing existing management to focus on continuing non-profit programs**. DE has largely operated under the CEDP or non-profit model since its inception, and as such, it may be easiest to focus strictly on CEDP or community development initiatives whereby market linkage is outsourced to an outside party- an external distributor or sales team.

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THREATS

- **Restrictions imposed by funders will inhibit management changes required to make DE a success.** I-DEV has often seen that funding restrictions can prevent company management from acting in the best interests of creating a financially sustainable entity. This includes tight oversight of the budget that may prevent capable management from appropriate risk taking and experimentation. DE has already been restricted by close oversight from LWF, who requires approval of any expenses over KES 50,000, a very small amount. Furthermore, general mandates designed by non-profit granters may build in restrictions that force DE to exist as a non-profit entity or for-profit entity that can never survive profitably.

SWOT- Sales & Marketing

Strengths

- **Ability to make initial contact with potential large-scale buyers.** DE has been incredibly successful in identifying a long and extensive list of potential partners. It has also succeeded in making initial contact and establishing buyer interest with several high potential partners, such as Earthoil and Indfrag. Recently, Assistant Director of Sales, Githinji has succeeded in adding roughly 25 new grocery outlets to the buyer list. Carnivore/Tamarind Group and others in Nairobi have also requested large bulk orders.
- **Ability to promote the DE brand and social/environmental value proposition.** DE, especially through Wren, has been very strong on promoting itself to potential buyers and investors, which led to the Verde Ventures investment in 2012, and follow-on grant funding from the Royal Embassy of the Netherlands, USAID and others.
- **Increased sales from posters.** In April 2013, DE posted 25 posters promoting the health benefits of its various products, including honey and Phytohealth products. According to staff, this has resulted in rapid uptake and growing interest in seketet, etc. (However, it should be noted that review of actual sales figures suggests no increase in demand.)

Weaknesses

- **Inability to follow through on formal partnership development and delivery. DE has** developed few leads that repeat business or partnership due to a few factors: 1) Constant management turnover, which has changed sales and product priorities and confused day to day operations; 2) No clear ownership of partnership development responsibilities; and disagreement among members of the senior staff on types of partners and relationships to prioritize or engage in.
- **Poor branding and product label design.** DE branding uses a common and overused name, "Eco Honey." For example, ICIPE also has an Eco Honey line. Furthermore, packaging promotes a KES 5 donation to communities for each jar of honey purchased. The overall packaging of the honey is unappealing and would not be worth packing in someone's suitcase or worth the premium that a tourist would be willing to pay.
- **Limited clarity of value proposition offered in Phytohealth or honey products.** None of DE's product packages promote the health, social or other benefits, e.g. organic certification, of their products that might warrant a premium purchasing price paid by consumers.
- **No formal marketing strategy or objectives.** DE has never had a clearly outlined marketing and sales strategy. Most of its business plans mention potential partners who have never heard of DE, which suggests there were never any discussions between the relevant parties. Furthermore, no formal market analysis, customer segmentation or pricing analysis has been conducted to drive appropriate, profitable pricing per unit and scalable sales on volume. This lack of strategy has caused stagnation.

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Opportunities

- **Partner with a national brand to offer private label goods or semi-processed inputs.** DE could partner with Kate's Organics, Honey Care Africa, Winnie's Pure Health or other national commercial brands to provide raw, semi-processed or specialty (e.g. organic) ingredients used in existing and new product lines. Alternatively, DE could partner with Healthy U or other retail chains to produce private label finished goods that are sold under the Healthy U or other retail brand and distributed throughout the retailer's network. Lumbasi has already had discussions with Esther from Healthy U about such a partnership; however, the lead has not been pursued in depth.
- **Re-brand and re-design marketing materials and labeling.** DE can hire a professional branding and packaging consultant to align packaging and product labels with the customer segments it targets. Currently, its packaging largely appeals to local individual or ingredient consumers who like to buy in bulk rather than quality/premium, healthy or other luxury associations.
- **Differentiate products to increase margins, shelf space and appeal to different market segments.** DE can rebrand and repackage its materials, focusing on smaller jars and luxury branding to garner higher margins for its products that will ensure profitability. DE could also benefit from diversifying its honey by varietals, e.g. aloe honey or organic certified vs. conventional.
- **Increase bulk ingredient sales to hotels, bakeries and other food venues.** Laikipia is abundant in boutique hotels and tent camps that DE could sell to; however, the company only sells to a small percentage of this market today. Bakeries and restaurants, especially those focused on high volume turnover (e.g. tourist attractions) or high-end dining (e.g. Mt. Kenya Safari Club) pose strong opportunities for volume sales for DE, which has already succeeded in selling to The Tamarind Group (Carnivore) and select others.

Threats

- **High competition for honey shelf-space in retail venues.** Kenya sells a broad range of honey brands, many of which are imported or produced by large-scale conglomerates for which honey is not a core product. Many retail chains will only limit a small fraction of shelf space to one SKU, and thus DE- with its current offering of 2 bottle sizes- may get limited shelf space compared to larger competitors such as Honey Care, Nasali, and others.
- **High competition for ground stinging nettle.** Many of the markets that DE has sold or placed its stinging nettle products in face competition from other companies, who do not package the product as nicely, but who offer powdered stinging nettle at lower prices and in packaging more familiar to consumers (sealed clear plastic bag).

FORWARD-LOOKING STRATEGY

OUTCOMES OF THE STRATEGIC PLANNING WORKSHOP

- **WORKSHOP METHODOLOGY**
  - On April 11th, 2013, Patricia Chin-Sweeney and John Barnett from I-DEV International led a strategic planning session with key members of the Desert Edge team, Board of Directors and investors.
  - Participants were broken out into groups of two to review & discuss why Desert Edge was created. Key points were shared with the group.
  - I-DEV presented a short-list of 6 products identified as posing the greatest short & medium-term opportunities for Desert Edge going forward. These products include 1) Honey & Bee Products, 2) Aloe, 3) Croton Nut, 4) Cape Chestnut, 5) Gum Arabic, and 6) Olive Leaf.
  - I-DEV ran through an in-depth unit price analysis for retail honey to demonstrate how a cost analysis is conducted & show that Desert Edge's core sales product by volume (500 g jar of honey) is not profitable. The group was led through a quick SWOT analysis of each product.
  - Participants were broken out into groups of three or four to brainstorm on key opportunities for Desert Edge going forward, based on market information and findings of the SWOT analyses. Key points emphasized for this were opportunities that would achieve Desert Edge's mission, vision, and objectives, based on cost, volume & profit feasibility.
  - Participants were also asked to consider related or complementary products, interested & existing buyers, and potential or interested strategic partners.

- **DESERT EDGE'S REVISED MISSION STATEMENT:** To build a competitive, profitable, market-based business that creates environmentally and economically sustainable income-generating opportunities for rural communities in Laikipia and Samburu regions.

- **DESERT EDGE'S NEW VISION STATEMENT:** One-hundred percent of Laikipia community members are able to earn a higher income through the sale of products or services that- directly or indirectly- promote local environmental conservation.

- **DESERT EDGE'S NEW OBJECTIVES (1-3 YEARS):**
  - Achieve financial profitability and business break-even by 2015, which includes all costs to cover operations and staff while ensuring fair, competitive compensation to local producers.
  - Launch or grow 2-3 indigenous products or services that create increased income for a minimum of 2,500 local producers in and around Laikipia by 2015. *(Compared to an estimated 440 honey producers from which Desert Edge purchases today)*
  - Educate, train and improve supply chain development of a minimum of 2,500 additional producers (versus 1,6000 today) in and around Laikipia by 2015 to ensure ongoing demand and purchase of their products.

- **IDENTIFIED SHORT-TERM & MEDIUM-TERM PRODUCT OPPORTUNITIES**
  - **SHORT-TERM OPPORTUNITIES (2013)**
    - Partner with other honey producers to take advantage of economies of scale, a broader supplier network of honey, an existing and recognized consumer brand and ability to sell high volumes of honey to an
    - Focus on diversified bee product sales (honey, bees wax, hives, etc.).
      - Re-brand, revise packaging look & size.
      - Reduce costs of inputs to increase profit margin.
      - Broaden marketing strategy to national focus (starting with major cities) and move beyond the current focus on Laikipia.
      - Identify/build strategic partnerships that enable DE to produce the volume of honey and profits required to cover the company's high overhead and grow profitably.
  - **MEDIUM-TERM OPPORTUNITIES (2014-2017)**
    - Offer complementary product mix- incorporating locally-available or high-demand, environmentally-conscious products- to diversify risk & maximize volume for profitability.
      - Aloe + Honey
      - Cape Chestnut Oil + Honey + Bee Products
      - Cape Chestnut + Croton Nut
    - Offer health & medicinal products or ingredients
    - Offer beauty products or ingredients catered to tourism & wealthier Kenyan consumer markets

- **CORE PRODUCTS OF INTEREST TO THE DESERT EDGE TEAM** (Note: Each participant was given 3 votes with the following results)

Product/Service	# Votes
Honey & Bee Products	9
Consulting	8
Seketet	6
Cape Chestnut	3
Aloe	2
Nettle	1
Croton Nut	1

Outcomes of the Strategic Planning Workshop (continued)

- **Additional Observations**
  - **Open-minded & collaborative team.** Despite a history of frequent turnover that resulted in revised strategy, the current Desert Edge team- including those re-hired at lower salaries and in new roles- are open to collaboration and committed to a new future and vision for the company. However, strong leadership is required to guide the team.
  - **Need for strong board & team leadership.** Desert Edge would benefit from a proactive board and a new Director to guide implementation on mission, vision and achievement of key financial and operational milestones. The board and Director should include business-minded external advisors with significant honey, finance and business management experience, for example, the CEOs or Directors of strategic partner organizations.
  - **Weak understanding of & focus on financial sustainability.** The Desert Edge team is committed to achieving financial sustainability; however, detailed understanding of or consideration for what that involves in terms of activities, pricing, and go-to-market strategy has been very limited. Financial savvy or long-term thinking is very limited.

Strategic Recommendations: Key Drivers

The following recommendations are based on insights gained about Desert Edge, its team, and operations via in-depth interviews with staff, investors, clients, and partner organizations, ii) market analysis and market landscaping, iii) field visits with Desert Edge suppliers, and iv) comprehensive review of the company's financial performance (historical and projections).

- **Key Considerations**
  - **Desert Edge's Actual Value Proposition:** DE has improved regional honey production through capacity building, and begun to open new channels for sale of wild harvested indigenous plant products.
  - **Desert Edge's Key Competition:**
    - Local markets (Isiolo, etc.)
    - Companies operating in Laikipia/Samburu who rely on similar inputs (EcoFuels Kenya, EarthOil Kenya, Karisia Honey)
    - Honey brewers
  - **Desert Edge's Core Competitive Advantage:**
    - Ability to make initial leads into new potential partnerships
    - Broad producer network
  - **Desert Edge's Greatest Strengths/ Assets:**
    - Access to significant grant funding
    - Knowledge of local plant species and their marketable properties
    - Leader in wild harvest and organic production in Kenya
  - **Desert Edge's Greatest Weaknesses/ Liabilities:**
    - Inability to execute on strategic partnerships with large-scale buyers or distributors
    - Inconsistent follow-up and quality control
    - Weak leadership
    - Weak financial savvy or understanding of the drivers necessary to achieve profitability
    - NGO- mindset and organizational structure
    - High SG&A costs
    - Large, inefficient staff/operations

STRATEGIC RECOMMENDATIONS: KEY DRIVERS

► GENERAL OBSERVATIONS & COMMENTS ON CHALLENGES FACING DESERT EDGE

- Lack of formal systems, related to client management, field training, stock management, and use of staff time (especially extension officers and R&D), has caused low efficiency and limited/ untraceable impact.
- Excess oversight from LWF has limited Desert Edge's growth and its ability to develop into an independent, self-sustaining company.
  - Reporting
  - Employment contracts
  - Mandatory attendance at LWF programming & events
  - Required approval of expenses over KES 50,000
- Constant leadership turnover, combined with unclear targets for individual staff, has hindered partnership development and marketing strategy cohesion.
- No clear entrepreneurial leadership or expertise at the helm of the organization resulting in:
  - Poor financial oversight and tracking of key business metrics (or impact metrics)
  - No clear strategy on capacity development, product development or sales & marketing
- Lack of development of organizational culture and confusion about whether Desert Edge is an NGO or a company.
  - Lack of adequate separation between LWF and Desert Edge
  - Half of Desert Edge's employees are focused on CEDP's objectives to provide pro bono capacity building to communities with no expected return, while others are focused on for-profit sales objectives
  - Employees are employed by and loyal to LWF, not Desert Edge
  - No profit/results based compensation and no employees have any "skin in the game" or equity in DE
- Limited ability to execute. As one employee said, there are a lot of "talkers" at Desert Edge vs. 1-2 dedicated and business-oriented "do-ers."

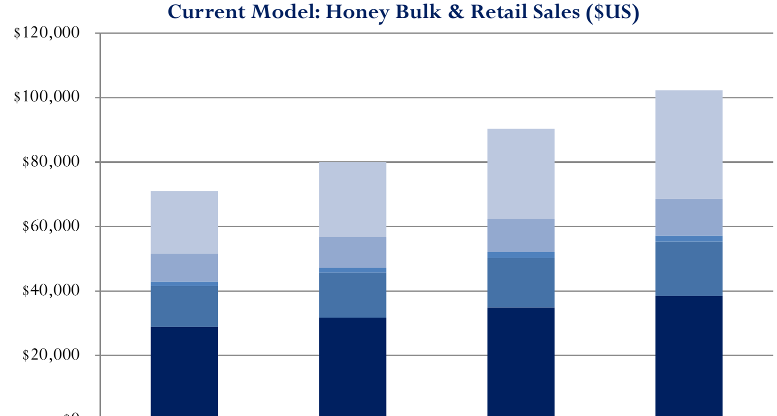
► I-DEV STRATEGY RECOMMENDATIONS FOR DESERT EDGE

- If Desert Edge continues to operate under its current model of 15 staffers and a focus on retail sales, DE will need to make a minimum margin (vs. revenues) of $US 94,135 in 2014, just to cover its SG&A expenses. *(This assumes minimal increase in sales & marketing budget, associated with printing promotional materials and placing products in prime store locations; 10 trips to Nairobi or other client locations per year (at an average of KES 20,000 per trip); and that the remaining SG&A expenses including annual salary remain the same.)* This $US 94,135 margin required compares to DE's 2012 gross revenues of $US 31,611 and an operating loss of $US 221,791 that year with no signs of improvement based on first quarter 2013 performance.
- While Desert Edge has demonstrated some successes over its 4 year history, the company has many challenges ranging from its original organizational design, history of poor leadership and its inability to execute on any meaningful sales relationships or partnerships. As such, I-DEV is recommending that Desert Edge avoid any significant focus on direct retail sales.

PROJECTIONS BASED ON CURRENT MODEL

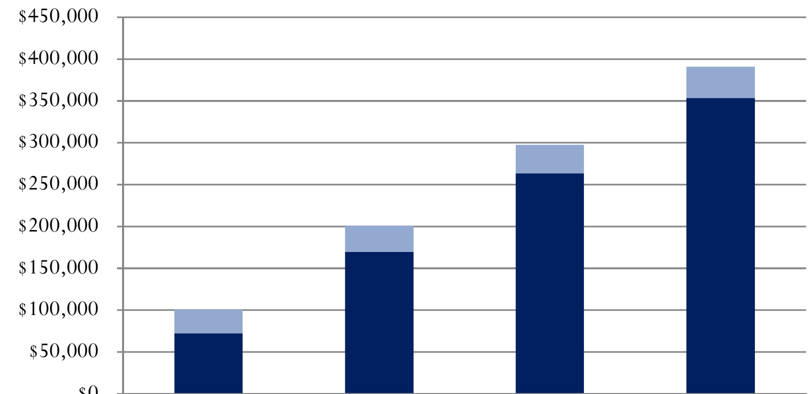
- **OVERVIEW**
  - I-DEV does not recommend that DE continue with its current model.
    - Current model has a bloated staff and SG&A expenses totaling $US 7,887 per month, which would require sale of ~26 tons of bulk honey, at KES 307/kg to achieve break even, assuming operating costs do not change year over year (Note: The model developed by I-DEV assumes a 5% annual inflation rate). Given high operating expenses, DE will struggle to achieve profitability.
- **PROJECTED FINANCIALS & ADDITIONAL CAPITAL NEEDS**

Current Model: Honey Bulk & Retail Sales ($US)



	FYE 2014	FYE 2015	FYE 2016	FYE 2017
Cape Chestnut Seed	$19,412	$23,294	$27,953	$33,544
Beeswax	$8,606	$9,466	$10,413	$11,454
Honey (300 g)	$1,389	$1,528	$1,680	$1,848
Honey (500 g)	$12,706	$13,976	$15,374	$16,912
Honey (Bulk)	$28,894	$31,784	$34,962	$38,458

Current Model:
Baseline Annual Investment Requirements ($US)



	FYE 2014	FYE 2015	FYE 2016	FYE 2017
Honey working capital	$28,256	$31,081	$34,189	$37,608
Cash requirement	$72,707	$169,685	$263,446	$353,474

Current Model: Summary Financials

	FYE 2014	FYE 2015	FYE 2016	FYE 2017
Gross Revenue	$71,006	$80,048	$90,382	$102,216
EBITDA	(98,340)	(95,477)	($92,108)	($88,203)
Net Income	($113,390)	($109,767)	($106,398)	($101,311)
Investment Requirement	$100,963	$200,767	$297,636	$391,083

	FYE 2014	FYE 2015	FYE 2016	FYE 2017
Total SG&A	**$94,135**	**$94,598**	**$95,084**	**$95,594**
% of Revenues	*132.6%*	*118.2%*	*105.2%*	*93.5%*
Total Salaries	**$112,941**	**$112,941**	**$112,941**	**$112,941**
Allocated to SG&A	*$28,341*	*$28,341*	*$28,341*	*$28,341*
Allocated to COGS	*$84,600*	*$84,600*	*$84,600*	*$84,600*
Bonus	*$0*	*$0*	*$0*	*$0*
Total # of Staff	**15**	**15**	**15**	**15**

PROJECTIONS BASED ON CURRENT MODEL

- **INVESTMENT REQUIREMENT**
  - Under its current model, DE requires ever increasing grant funding to sustain any growth. In 2014, I-DEV projects that DE will require $100.2K to sustain operations and cover working capital requirements to purchase honey. This figure doubles in 2015 to $200.8K, etc.
- **KEY ASSUMPTIONS USED**

Current Model Assumptions

SG&A (per year)	KES	$US	Details
# of Staff			15 staff, actual.
Total salaries/year	7,191,000	$84,600.0	Figures shown only includes the portion of salaries not associated with COGS.
Communcations	252,000	$2,964.7	Associated with the office phone of KES 4000/month + KES 1000 for each of the extension offiers + KES 10,000 for internet
Advertising & Promotions	30,000	$352.9	Based on current expenses associated with printing promotional posters at a total fo KES 20,000 plus, an additional KES 10,000 for
Office Rental	-	$0.0	As listed in audited financials. Assumed to be paid for by LWF/CEDP.
Repairs & Maintenance	35,000	$411.8	2 annual car servicings, based on current costs.
Professional Fees	204,996	$2,411.7	Based on current costs for auditing (KES 155,000) plus other legal and consulting fees on product development, etc.
Employee travel, meals & accomodations	100,000	$1,176.5	Assumes 5 trips to Nairobi or other client locations per year at KES 20,000 each.
Employee & Producer Training	100,000	$1,176.5	Per year. Assumes cost of producing training materials, e.g printing and renting venues, etc. where necessary.

Other Assumptions	KES	$US	Details
Purchase Price per Kg of:			
Comb Honey	197	$2.3	Assumes 80% of purchased comb honey is KES 200/kg and 20% of purchased honey is KES 185/kg, DE's current pricing.
Yield per Kg Comb Honey:			
Pure Honey			90% yield. Minimal waste.
Wax			10% yield. Minimal waste.
Sales Price per Kg of:			
Pure Honey (Bulk)	307	$3.6	Average price for unpackaged honey in 2013.
Pure Honey (500 g)	200	$2.4	Slight increase from actual figures. Average price for unpackaged honey in 2013 was KES 189.
Pure Honey (300 g)	130	$1.5	Slight increase from average of KES 122.89/jar, the average price for unpackaged honey in 2013.
Wax	600	$7.1	HCA is willing to pay KES 500-600/kg for good beeswax.
Average Units Sales Per Month for 2014:			
Pure Honey (Bulk)			2,000 kg or 2 tons per quarter. Assumes roughly 4-8 medium to large bulk contracts per year.
Pure Honey (500 g)			450. Assumes 450 units per month or 1350 per quarter sold, which is slightly above the 432 units/month average in 2012 and 413/month average in 2013.
Pure Honey (300 g)			227. Actual average sales per month based on 2013 figures.
Wax			Assumes all wax produced is sold. 10% wax yield per kg of comb honey purchased.
Assumed Annual Growth Rates:			
Honey Production			10%, based on a optimistic scenario. There has been no previous growth.
Cape Chestnut			20%, based on optimistic projections that Earthoil and other traders and local cosmetic companies will demand the carrier oil.
Producer Dynamics:			
Avg. kg honey sold per producer per year			16 kg per producer, based on figures provided by Maxwell Lumbasi.
Avg. Kg of cape chestnut seed per producer per harvest			80. Based on 73 kg per producer per year that collected the initial 10 ton purchase in 2010.

Option 1: Wholesale Supplier Model

► Overview

- Desert Edge becomes a wholesaler supplying select raw and semi-processed products to 5-10 leading Kenyan brands & distributors.
  - Products should include: honey, wax, cape chestnut seed, cape chestnut oil, aloe fillet & gum, ground seketet, and ground stinging nettle. Croton nut, while abundant, is not profitable.
- Under this model, Desert Edge eliminates any significant focus on direct retail sales (which it has struggled to execute on in the past and which is costly in staffing).
- Instead DE establishes long-term supply contracts with a few major customers who demand high levels of volume on a consistent, on-going basis.

► Key Requirements/Changes

- Reduce DE staff to only the key capacity building/ sourcing members and a general manager or director (Max. of 3 internal staff, plus extension officers) and a driver
- Sign formal partnership/ long-term sales agreements with select strategic buyers who have significant demand requirements.
- Fixed or variable pricing based on a fixed premium (similar to Fair Trade premium) should be negotiated with customers and defined in contract. (KES 10/kg is assumed in models developed by I-DEV).
- Final packaging, distribution and sales responsibilities/ risks and costs are transferred to strategic partners, dramatically simplifying Desert Edge's business model.

► Pros & Cons of the Wholesale Supplier Model

Option 1:Wholesale Supplier Model

Pros	Cons
• Simplifies and streamlines DE's operations considerably. • Dedicated (or multiple dedicated) buyers & access to a larger national/international market. • Leverages DE's existing supply chain and capacity developing expertise. • Guaranteed purchase mitigates DE and farmer risk, ensures grant funding is being used efficiently and greater volumes can be purchased to maintain inventory year-round. • Reduced sales & marketing costs, and distribution-related travel expenses. • Ability to purchase larger volumes of goods from communities, increasing socio-economic impact.	• Focused on lower margin, non-value added sales for Desert Edge. • Desert Edge would have no independent retail brand. • Strategy is heavily dependent on Desert Edge's ability to execute on supply chain development, operating efficiencies and increased producer loyalty- all areas that it has struggled with in the past.

OPTION 1: WHOLESALE SUPPLIER MODEL

► **POTENTIAL PARTNERS & THE PARTNERSHIP RELATIONSHIP**

Option 1: Potential Wholesale Customers/ Partners

Potential Partner	Details
Honey Care Africa (HCA)	• Interested in purchasing 100% of Desert Edge's honey (up to 50 tons or more per year). • Target pricing is KES 210/kg for liquid honey or KES 140/kg for raw comb honey (Desert Edge currently pays up to KES 260/kg for liquid honey). • Desert Edge could increase pricing by sweetening deal via favorable payment terms (i.e. net 30 or 60 days), guaranteeing sizable minimum volume and supplying wax as well. • Interested to purchase 100% of bee's wax and has a demand of at least 1.3 tons per year, and are willing to pay KES 500-600/kg. • Offer shared values, supply chain efficiency training & strong leadership/management to support & strengthen Desert Edge. • Offer broad national brand and expansion strategy into international markets.
Kate's Organics	• Interested in purchasing 100% of certified organic honey and stinging nettle. Potentially interested in aloe, seketet and other herbal tea ingredients as well. • Will pay in the range of KES 220-300/kg for liquid honey, and may be willing to pay more depending on volume that Desert Edge can deliver. • Offer similar values/interest in new product R&D on herbal and medicinal plants and the promotion of Organic and health, sustainably sourced ingredients. • Offer a national client base of over 5 million buyers & a strong brand that can be used to leverage shared growth opportunities.
Healthy U	• Suggested interest in offering honey & other Healthy U branded products that are sourced from and manufactured/packaged by Desert Edge. • Offer a national brand and ~40 retail outlets to which Desert Edge could have exclusive access under the Healthy U brand. • Offers an established brand and store network through which Desert Edge can test consumer interest in new products developed, such as seketet tea and others.
EarthOil	• An existing buyer of cape chestnut seed from Desert Edge. Desert Edge recently negotiated a higher price per kg of cape chestnut seed with Earthoil and has a contract to supply 30 tons to the company this year. • May also be interested in working with Desert Edge on sourcing other ingredients for essential oils and beauty products for sale to its broad network of clients including The Body Shop.
Other Leads	• Winnie's Pure Health (Kenya)- Kenyan healthy foods brand selling honey and other packaged foods. • Tropical Forest Products (UK)- Niche honey producer buying from Africa, and who has expressed interest in Desert Edge. • Shea Terra Organics (US)- Natural cosmetics & beauty products company that uses cape chestnut oil in its products, and has expressed interest in Desert Edge. • Liz Earle Naturally Active Skincare (UK)- Cosmetic company that uses cape chestnut oil in its products, and that has expressed interest in Desert Edge. • Carnivore/Tamarind Group (Kenya)- Existing client that runs a number of restaurants in Kenya.

► **PRODUCTS MIX, SALES & MARKETING**

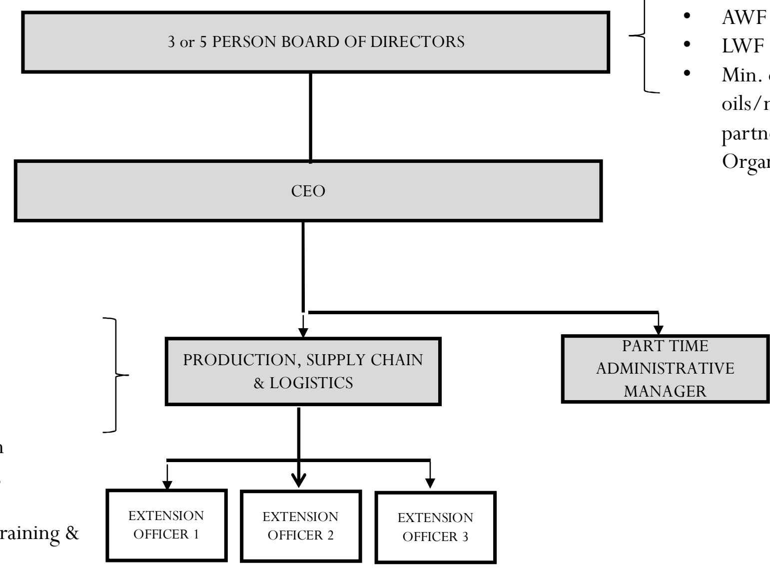
- Majority of sales & marketing function would be done by partner organizations, while the Desert Edge CEO would be charged with maintaining established partnerships with wholesale clients and developing limited number of new strategic partnerships.
- Product focus will be driven by customer/strategic partner demand. However, core products of focus will likely include:
    - Honey & Beeswax (~16 tons of pure honey & 1.8 tons of wax in 2014)
    - Dried, ground nettle (160 kg in 2014, with 100% annual growth given abundant supply and broad market familiarity)
    - Cape chestnut seed (30-40 tons with 20% annual growth)
    - Cape chestnut oil (24 liters in 2014, and up to 100 liters by 2017, given the seed's abundance and growing interest)
    - Aloe gel (potentially) (1 ton in 2014 with 50% annual growth, assuming it is approved by KEBS and promoted by DE and the Kenya Aloe Association as a comparable substitute for Aloe Ferox or Vera)
    - Aloe gum (potentially) (1 ton in 2014 with 50% annual growth, as above)
    - Dried, ground seketet (160 kg in 2014 with 50% annual growth due to increasing consumer awareness that drives demand)

OPTION 1: WHOLESALE SUPPLIER MODEL

► OPERATIONAL & STAFFING STRUCTURE

Wholesale Supplier Model

- CEO/DIR of Desert Edge
- AWF
- LWF
- Min. of 2 outside directors from FMCG, oils/natural products trade, & finance (or partners e.g. Honey Care Africa, Kate's Organics, etc.)



<u>CEO:</u>
- Leads partnership development
- Oversees ongoing relationships & customer satisfaction with products
- Provides general strategic vision & team leadership to ensure staff achieves target objectives/goals
- Manages finances with focus on achieving breakeven point by increasing volume sales while ensuring profitability and reduced SG&A costs

<u>PRODUCTION, SUPPLY CHAIN & LOGISTICS DIRECTOR:</u>
- Manages field staff
- Develops and manages collector based supply chain
- Oversees supply chain, processing, quality control, packaging & distribution
- Trains extension officers to provide efficient field training & supply chain sourcing services
- Monitors social/environmental and other key performance indicators

<u>ADMINISTRATIVE MANAGER:</u>
- Manages all book keeping, finance, payroll, and other administrative aspects of DE
- Reports directly to the CEO & the BOD

► SUPPLY CHAIN IMPLICATIONS

- **Need to improve transparency & quality control:** While its supply chain is Desert Edge's greatest asset, it is still weaker than many other supply chains we have seen. Desert Edge must increase the accuracy of its data collection in the field in order to assess where inefficiencies lie and improvements over time, especially in relation to Extension Officer's time and uses of time and cost per revenue unit.
- **Strengthen collection center model:** Desert Edge has only loosely developed a collection center based supply chain model. Many similar organizations have had a great deal of success implementing robust hub and spoke collection center supply chain models where the collectors are high performing, reliable members of the farmer groups they work with.
    - I-DEV would recommend that DE identify 10-12 producers that may make good, reliable collectors and have them act as DE buyers in their local area, with the goal of eventually settling into 6 buyers/ collection centers (keeping the top performing 6) and paying collectors some small amount per kg of product they aggregate (i.e. 1-3% of each purchase). DE field staff then collect aggregated product directly from collection centers. Will reduce supply chain costs and increase efficiency considerably.

- **Establish a community secondary benefits program:** The farmer loyalty/ secondary benefits program that would offer additional benefits to DE farmers for selling at least 85% of their production to DE/ Partner.
  - Benefits could include – Access to free special training to increase production yields, access to discounted productive inputs, discounts on new hives, discounts on school supplies, home construction/ contracting fees, access to healthcare and life/funeral insurance, access to crop micro-insurance.
- **Increase volume of organic certified (for Kate's Organics only):** Increase in organic certification will be particularly critical if Desert Edge partners with a company such as Kate's Organics, which values and only purchases organic certified goods. If Desert Edge does not partner with a buyer who demands and will pay a premium for organic certification, it should not purchase these products unless purchasing price to communities is on par with non-organic equivalents.
- **Develop a strong inventory management system to factor in cyclicality of harvest seasons, climate change, etc.** Avoiding stock outs by accurately projecting the annual requirements of its clients will be critical to ensuring Desert Edge's long-term success and should be more manageable under long-term partnership agreements that specify minimum purchase commitments. Desert Edge should also speak with clients regularly to assess their future year-over-year needs and purchasing patterns

► **STAFFING & TEAM IMPLICATIONS**

- DE's current staff is much larger than their current or future business model can support sustainably.
- Under Option 1, DE would be able to reduce staff to supply chain & partner relationship management staff only.
- Under DE's current model, none of its staff have any performance based incentives/compensation. DE's BOD should implement performance indicators for all staff & management with significant upside bonuses (~30-50% of total salary) for achievement of indicators and potential salary loss or loss of job if minimum indicators are not met.
- CEO/Director of Partnerships:
  - **Role:** Business management and main client relationship manager, including financial manager for the business.
  - **CV:** Must have business and finance background and be able to maintain client relationships. Also SHOULD have shares in DE and have at least 50% of their annual salary be bonus based (upside) tied to achieving specific results targets.
  - We do not have confidence in Eric Okwach's ability to lead DE going forward and he should be replaced with either Maxwell Lumbasi or a new hire.

- **Administrative Manager/ Bookkeeper/ Accounting:**
  - **Role:** Manage quick books, accounts receivables, billing and deposit of checks, and play a key role in oversight of all business expenses, especially related to procurement. Ensure that DE has adequate stock to account for seasonality and ongoing client demand.
  - **CV:** Must be a certified public accountant with previous for-profit accounting experience in wholesale or similar product-based business in Kenya. Position may be part-time.
  - Adams Kipkorir appears to be a more competent accountant than previous staff. He seems to have weak follow up and communications skills, particularly through email correspondence, based on I-DEV's interactions with him. However, his responsiveness to clients and suppliers may be better. If Kipkorir is considered for the position going forward, he should be asked if he would be willing to absorb administrative duties as well.
- **Production Manager:**
  - **Role:** Lead all sourcing and training on production and quality control and manages Extension Officers. This also requires management & collection of field data to track supply in correlation with orders, manage costs, improvements and operating efficiencies, and report appropriate data up to CEO and Admin Manager.
  - **CV:** Previous experience in beekeeping and/or natural product supply chain development and sourcing, ideally for a for-profit entity. At least 30% of salary should be tied to specific target achievements.
  - David Njuguna, Director of Bee Enterprise, has come from a non-profit background, and may have some challenges adjusting to a for-profit and more structured approach. However, I-DEV believes he can absorb these responsibilities, and he may also be able to take on additional responsibilities of overseeing plant products, for which he should be compensated accordingly. Tying compensation to performance will be a significant incentive and driver of David's performance, and he should be clearly instructed on performance metrics of focus.
- **Extension Officers (perhaps one of the most critical roles within DE)**
  - **Role:** Day to day management of DE supply chain, purchase honey from community groups and collection points, train community groups to increase honey yield through proper hive maintenance, assist in honey harvesting, train community groups on responsible wild harvest and organic practices, collect relevant field data and promote sale of goods to DE at set pricing.
  - **CV:** From the region where he will be operating, understanding or willingness to learn beekeeping and wild harvest protocol, ability to track and collect accurate field data and report to Production Manager on a weekly basis. Strong sales skills and comfort promoting exclusive sale to DE.
  - Current extension officers should be assessed on their ability to learn new, more efficient community training protocol; collect & report accurate data to Desert Edge; and educate producers on the value proposition that Desert Edge offers in exchange for producer loyalty. Extension officers who are satisfied with offering pro bono capacity building/extension services to producers regardless of who they sell to should be let go.

- **Establish relevant Impact and Operational KPIs to provide direction to staff & BOD**

Target	Sample KPIs
Firm-Wide/ BoD	• Total volume purchased & sold each year (per product) • Firm- Wide Revenues & Profit • Year over Year Revenue/ Profit Growth • Achievement of breakeven point • Per product profitability • Profitability per customer contract • Avg. increased income per producer • Number of Producers
CEO/ Director of Partnerships	• See Firm-Wide KPIs, plus… • Increase in year-over-year gross revenues • Min. of 1 signed/executed contract for honey (minimum purchase commitment of 5 tons • Min. of 1 signed/executed contract for cape chestnut, stinging nettle, aloe or seketet (minimum of 10 tons commitment for cape chestnut, and 1 ton order for others) • Achievement of breakeven point
Production Manager (s)	• Increase in total volume of comb honey purchased • Increase in volume of honey per Extension Officer • Number of dedicated sellers/groups selling to Desert Edge (or year-over-year increase in producer loyalty as a percentage of members in a given community group) • Increase in honey yield per hive (hive efficiency) • Increased supply chain efficiency (total sourcing and TA costs/ revenues) • Zero stock outs of products specified in client contracts • Increase in number of dedicated collection centers established (with a minimum of 1 established per region and a minimum of 1.5-2 tons of honey per collection center per year)
Extension Officers	• Increase in average honey yield per hive (hive efficiency) • Successful wild collection to client's specifications • Achievement of 25% annual increase in volume honey purchased per year • Increase in honey purchased per individual producer • Average costs per hive or sourcing cost per ton of honey or plant product • Total profit margin per ton (excluding all grants from revenue)

- **BOD should establish incentive-based compensation tied to KPIs for all DE staff.**
  - Desert Edge's culture should encourage and incentivize all of its employees to achieve meaningful, impact & profit-driven results.
  - The CEO should have at least 30%-50% of their salary tied to performance on key indicators via upside bonus (smaller guaranteed salary with very nice upside total salary for achieving results).
  - Other employees should have at least 30%-50% of their salaries tied to performance on key indicators via upside bonus (smaller guaranteed salary with very nice upside total salary for achieving results).
  - Employee contracts should be reviewed by the Board of Director on an annual basis, and employment contracts should only be extended another year if the employee has achieved 75% of his/her target KPIs.

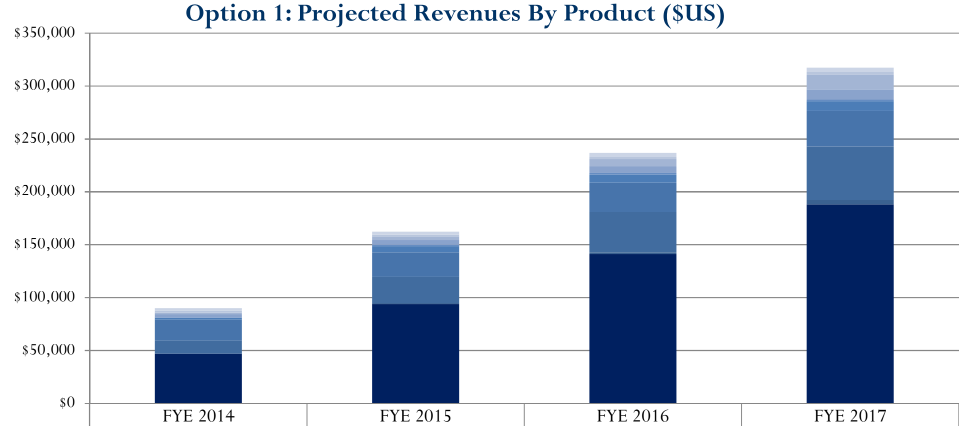
OPTION 1: WHOLESALE SUPPLIER MODEL

► **OTHER CONSIDERATIONS**

- DE needs a strong and proactive Board of Directors, consisting of a minimum of 2 directors with finance and business experience.
- DE should consider placing the CEO on the board to provide additional business strategy and executive support.

► **PROJECTED FINANCIALS & ADDITIONAL CAPITAL NEEDS**

Option 1: Projected Revenues By Product ($US)



	FYE 2014	FYE 2015	FYE 2016	FYE 2017
Aloe Gel	$2,353	$2,824	$3,388	$4,066
Aloe Gum	$1,765	$2,118	$2,541	$3,049
Ground Nettle	$1,694	$3,388	$6,776	$13,553
Ground Seketet	$2,824	$4,235	$6,353	$9,529
Cape Chestnut Oil (1 L)	$471	$1,412	$1,412	$1,412
Cape Chesnut Oil (5 L)	$1,882	$5,647	$7,529	$9,412
Cape Chestnut Seed	$19,412	$23,294	$27,953	$33,544
Beeswax	$12,549	$25,161	$37,929	$50,824
Honey (500 g)	$0	$376	$1,694	$3,765
Honey (Bulk)	$47,059	$94,118	$141,176	$188,235

	FYE 2013	FYE 2014	FYE 2015	FYE 2016	FYE 2017
Max. Qtrly Cash Shortage	$39,195	-$50,918	-$97,779	-$112,716	-$115,104
Base Grant Requirement		$50,918	$46,860	$65,856	$49,248
Addit. 50% Funding Buffer		$25,459	$23,430	$32,928	$24,624
Total Grant Funding Recommended		$76,377	$70,291	$98,784	$73,872
Total Annual Cash Requirement		$50,918	$97,779	$112,716	$115,104

Option 1: Wholesale Supplier Summary Financials

	FYE 2014	FYE 2015	FYE 2016	FYE 2017
Gross Revenue	$90,008	$162,573	$236,753	$317,388
EBITDA	(69,880)	(37,598)	(5,529)	29,661
Net Income	($85,180)	($52,889)	($20,820)	$15,553

Note: Assumes acquisition of a $5000 screw press for cape chestnut oil in 2014.

		FYE 2014	FYE 2015	FYE 2016	FYE 2017
Total SG&A		**$66,726**	**$67,376**	**$68,058**	**$68,774**
	% of Revenues	*74.1%*	*41.4%*	*28.7%*	*21.7%*
Total Salaries		**$90,376**	**$36,927**	**$53,449**	**$0**
Allocated to SG&A		*$53,449*	*$53,449*	*$53,449*	*$53,449*
Allocated to COGS		*$36,927*	*$36,927*	*$36,927*	*$36,927*
Bonus (30%)		*$18,847*	*$18,847*	*$18,847*	*$18,847*
Total # of Staff		**6.5**	**6.5**	**6.5**	**6.5**

Option 1: Wholesale Supplier Model

- **Investment Requirements & Recommendations**
  - Investment requirements outlined in the chart above indicate the cash required for DE to have adequate working capital to purchase one year's supply of honey from producers in bulk and at a lower purchase price per kg of honey.
    - The model and charts assume this funding is provided to DE in the form of a grant since additional debt or interest payments at this early stage will limit the company's growth and make it further vulnerable to failure.
    - Base grant requirement is the minimum cash that DE will require to avoid negative cash flows each year. I-DEV has added a 50% buffer to give some for variation to DE staff and operations.
  - Annual allocation of grant funding to DE should be dependent on the company achieving a minimum requirement of defined success targets, e.g. a minimum of 75% of target company wide KPIs.
    - Funding should be tranched in one or a maximum of two annual disbursements, aligned with pre-honey harvest seasons, to provide a basic control over cash burn but allow for adequate cash to purchase honey when it is available.
    - Any delay in paying cash to beekeepers will inhibit DE's bulk purchasing power, which is critical given the company's need to reduce purchase price/kg of comb honey.
  - AWF might also consider working with third parties with expertise in business development, rural supply chain development and trade to support implementation of the wholesale supplier model, including to train staff on business and financial considerations including interpreting financial projections, developing & adhering to KPIs and incentive structures, building supplier loyalty, negotiating purchasing price from farmers, establishing collection centers to reduce collection costs, as well as securing and negotiating wholesale contracts with buyers.
    - I-DEV estimates that $150,000 for supply chain implementation and $50,000 for marketing implementation is adequate capacity building budget. This cost is not included in the model or assumptions.

OPTION 1: CONSOLIDATED INCOME STATEMENT

USD *(in KES or USD)*	ACTUAL					
85 *Exchange Rate (KES/USD)*	FY 2012					
	2012 KES	2012	FYE 2014	FYE 2015	FYE 2016	FYE 2017
Consolidated Revenues						
Honey			$59,608	$119,655	$180,800	$242,824
Cape Chestnut			$21,765	$30,353	$36,894	$44,367
Croton Nut			$0	$0	$0	$0
Seketet			$2,824	$4,235	$6,353	$9,529
Nettle			$1,694	$3,388	$6,776	$13,553
Aloe			$4,118	$4,941	$5,929	$7,115
other products			$0	$0	$0	$0
other products			$0	$0	$0	$0
Total Revenues	**21,870,583**	**$257,301**	**$90,008**	**$162,573**	**$236,753**	**$317,388**
Cost of Goods Sold						
Honey			$64,329	$99,274	$134,815	$170,834
Cape Chestnut			$20,517	$23,628	$26,757	$30,478
Croton Nut			$0	$0	$0	$0
Seketet			$2,469	$2,803	$3,304	$4,056
Nettle			$2,757	$3,713	$5,625	$9,449
Aloe			$3,090	$3,378	$3,723	$4,137
other products			$0	$0	$0	$0
other products			$0	$0	$0	$0
Total COGS	**1,310,352**	**$15,416**	**$93,162**	**$132,795**	**$174,225**	**$218,954**
Gross Profit Margin	**20,560,231**	**$241,885**	**($3,154)**	**$29,777**	**$62,528**	**$98,435**
Gross Profit Margin %			*-3.5%*	*18.3%*	*26.4%*	*31.0%*
Sales, General & Administrative Expenses						
Salaries			$53,449	$53,449	$53,449	$53,449
Communications (Cell, Internet, Telephone)			$2,259	$2,372	$2,490	$2,615
Advertising and Promotion			$0	$0	$0	$0
Delivery/Courier charges			$282	$282	$282	$282
Postage			$71	$74	$78	$82
Office Rental			$4,800	$5,040	$5,292	$5,557
Repairs and Maintenance			$412	$432	$454	$477
Hardware Materials			$0	$0	$0	$0
Professional Fees (Legal, Accounting, Consultants)			$2,412	$2,532	$2,659	$2,792
Employee travel, meals and accomodations			$1,176	$1,235	$1,297	$1,362
Employee and producer trainings			$1,176	$1,235	$1,297	$1,362
Bank service charges			$176	$185	$195	$204
Registration fees			$0	$0	$0	$0
Electric			$300	$315	$331	$347
Water			$141	$148	$156	$163
Gas			$71	$74	$78	$82
Other			$0	$0	$0	$0
Misc.			$0	$0	$0	$0
Total Operating Expenses	**18,119,523**	**$213,171**	**$66,726**	**$67,376**	**$68,058**	**$68,774**
% of Revenues		*82.8%*	*74.1%*	*41.4%*	*28.7%*	*21.7%*
EBITDA	**2,440,708**	**$28,714**	**(69,880)**	**(37,598)**	**($5,529)**	**$29,661**
EBITDA Margin		*11.2%*	*-77.6%*	*-23.1%*	*-2.3%*	*9.3%*
Total Interest		$0	$1,230	$471	$471	$471
Total Depreciation & Amortization	1,789,906	$21,058	$14,070	$14,820	$14,820	$13,637
Profit before taxes	650,802	$7,656	($85,180)	($52,889)	($20,820)	$15,553
Taxes 0%			$0	$0	$0	$0
Net Income / (Loss)	**650,802**	**$7,656**	**($85,180)**	**($52,889)**	**($20,820)**	**$15,553**
Net Income Margin			*-94.6%*	*-32.5%*	*-8.8%*	*4.9%*

OPTION 1: KEY ASSUMPTIONS

Option 1: Wholesale Supplier Model Assumptions

SG&A (per year)	KES	$US	Details
# of Staff			5.5 full time plus a driver. Assumes new structure of Director/CEO, Production Manager, 3 extension officers, part-time administrator/bookeeper & driver.
Total salaries/year	6,080,000	$71,529	Only includes the portion of salaries not associated with COGS. Total salaries/month is $9,412. Salaries remain comparable to current salaries, but part-time administrator receives KES 500,000 for 50% of his time.
Total Bonus	1,602,000	$18,847	Bonuses equal to 30% for all employees except the driver and part-time administrator to incentive achievement of target milestones. Employees who do not achieve the majority of targets will be replaced immediately.
Communications	192,000	$2,259	Assumes no need for an office landline, which is a savings of KES 4000, and elimination of the Head of Sales who previously received KES 1000/mo phone budget.
Advertising & Promotions	-	$0	No advertising or promotion materials required for wholesale.
Office Rental	408,000	$4,800	Assumes DE will now be independent of LWF and pay a monthly rent of $400 or KES 34,000.
Repairs & Maintenance	35,000	$412	Based on current cost to service vehicle every 5,000 km. Minimal equipment servicing costs.
Professional Fees	205,000	$2,412	Based on current costs for auditing (KES 155,000) plus other legal and consulting fees on product development, etc.
Employee travel, meals & accomodations	100,000	$1,176	Assumes 5 trips to Nairobi or other client locations per year at KES 20,000 each.
Employee & Producer Training	100,000	$1,176	Per year. Assumes cost of producing training materials, e.g printing and renting venues, etc. where necessary.

Other Assumptions	KES	$US	Details
Purchase Price per Kg of:			
Comb Honey	160	$1.9	Assumes DE can reduce prices paid to producers by guaranteeing 100% purchase and set up of collection centers
Yield per Kg Comb Honey:			
Pure Honey			90% yield. Minimal waste.
Wax			10% yield. Minimal waste.
Sales Price per Kg of:			
Pure Honey (Bulk)	250	$2.9	Average price for unpackaged honey in 2013.
Pure Honey (500 g)	200	$2.4	Slight increase from actual figures. Average price for unpackaged honey in 2013 was KES 189. This would be sold private label to a potential partner such as Healthy U and not begin until 2015, allowing DE plenty of time to build a private label partnership.
Pure Honey (300 g)	125	$1.5	Slight increase from average of KES 122.89/jar, the average price for unpackaged honey in 2013.
Wax	600	$7.1	HCA is willing to pay KES 500-600/kg for good beeswax.
Cape Chestnut	55	$0.6	Based on new pricing negotiated by DE with Earthoil to supply 30 tons this year.
Cape Chestnut Oil (5 liter)	40,000	$470.6	DE begins producing 5 liter and 1 liter containers of cape chestnut oil for sale to cosmetic companies in Nairobi & potentially abroad. Price is based on online wholesale prices for cape chestnut in the U.S. and Europe.
Cape Chestnut Oil (1 liter)	10,000	$117.6	DE begins producing 5 liter and 1 liter containers of cape chestnut oil for sale to cosmetic companies in Nairobi & potentially abroad. Price is based on online wholesale prices for cape chestnut in the U.S. and Europe.
Seketet	1,500	$17.6	Based on pricing provided by Maxwelll Lumbasi.
Stinging Nettle	900	$10.6	Price is marked up from KES 700/kg suggested by Lumbasi, assuming additional mark-up for drying and grinding to semi-processed material for teas, etc.
Aloe gum	150	$1.8	No formal market yet, but figures are based on Laikipia Aloe's projections on willingness to pay for products.
Aloe gel	200	$2.4	Figures are from Laikipia Aloe's Maria Dodds on current market prices.
Croton Nut	12	$0.1	Not included in consolidated P&L. Assumes croton nut will never be profitable for DE, based on economics e.g. low purchase price combined with cost of collection and labor.

OPTION 1: KEY ASSUMPTIONS

Option 1: Wholesale Supplier Model Assumptions

Average Units Sales Per Month for 2014:	KES	$US	Details
Pure Honey (Bulk)			Increase to 16 tons per year by 2014, based on acccess to greater working capital to purchase honey, improved honey yield from capacity building, and support from select wholesale buyers such as HCA. Assumes DE focuses primarily on wholesale of bulk honey to large producers and chains such as HCA, Kate's Organics, Carnivore, etc.
Pure Honey (500 g)			40 units per quarter beginning in 2015. Assumes DE can negotiate a contract with a Healthy U, Nakumatt or other party by 2015 to supply private label jars of honey distributed first in 2 pilot stores and then ramping up year over year.
Pure Honey (300 g)			Not included in the model at this time.
Wax			Assumes 100% of honey produced from comb honey purchases will be sold.
Cape Chestnut			Assumes 7,5000 kg of seed per quarter, which is what DE has committed to supplying Earthoil in 2013.
Cape Chestnut Oil (5 liter)			Assumes slow start at 1 unit per quarter in 2014, likely to small local cosmetic and bath/body product processors.
Cape Chestnut Oil (1 liter)			Assumes 1 unit sold per quarter to small companies or individual processors who are looking to trial products with cape chesnut oil or use if for massage oil, etc.
Seketet			Assumes 40 kg per quarter, which is based on the 160 kg that DE has purchased from its supplier network to-date and in 2012.
Stinging Nettle			Assumes 40 kg per quarter based on limited existing supplier network and historical purchase by DE from the communities.
Aloe			Assumes 250 kg of gum and 250 kg of gel per quarter, which is a moderate increase based on the actual yield of gum and aloe from 2 tons (2,000 kg) of aloe leaf previously purchased by DE in 2012 for trials.
Croton Nut			Not included in consolidated P&L. Assumes croton nut will never be profitable for DE, based on economics e.g. low purchase price combined with cost of collection and labor.
Assumed Annual Growth Rates:			
Honey Production			Assumes a scaling growth rate as DE increases in efficiency and producer loyalty and based on current available supply in Laikipia/Samburu of 71% by 2014, then 34%, 51% and 67%. By 2017, DE will be able to access nearly 50,000 kg of comb honey, which is already available/being produced in the region, based on an estimate of at least 5,000 log hives active in the Laikipia/Samburu region.
Cape Chestnut			20%, based on optimistic projections that Earthoil and other traders and local cosmetic companies will demand the carrier oil.
Cape Chestnut Oil			DE begins producing 5 liter and 1 liter containers of cape chestnut oil for sale to cosmetic companies in Nairobi & potentially abroad. Product will be distributed via vehicle as the case with other products.
Seketet			50% growth, assuming DE can promote the value additional of a new product that is unfamiliar to the market, but is recognized for its health benefits.
Stinging Nettle			100% growth assumed because it is high demand and abundantly used in Kenya already.
Aloe			20% annual growth, assuming DE can promote the value of a new varietal. Kate's Organics suggested interest in purchase.
Croton Nut			Not included in consolidated P&L. Assumes croton nut will never be profitable for DE, based on economics e.g. low purchase price combined with cost of collection and labor.
Establishment of collection centers:			Collection centers for honey will reduce collection costs to KES 1500/trip vs. KES 3000/trip.
Producer Dynamics:			
Avg. kg honey sold per producer per year			16 kg per producer, based on figures provided by Maxwell Lumbasi.
Avg. Kg of cape chestnut seed per producer per year			80. Based on 73 kg per producer per year that collected the initial 10 ton purchase in 2010.
Avg. Kg of dried seketet per producer per year			1 kg per farmer per year.
Avg. Kg of dried stinging nettle per producer per year			12 kg per farmer per year.
Avg. Kg of aloe leaf per producer per year			80 kg of leaf per farmer, based on the Tigithi trial where 25 members sold DE 2 tons of aloe leaf for KES 30/kg.
Avg. Kg of croton nut per producer per year			N/A.

OPTION 1: SOCIAL IMPACT

► **ANTICIPATED IMPACT**

Impact Projections: Option 1

Year	2013 Actual	2013 YE	2014	2015	2016	2017
Direct Beneficiaries via Sales to Desert Edge	465	500	1058	2016	2887	3674
Increase in honey production per producer	0%	0%	5%	5%	5%	5%
Avg. # pp/ton honey purchased	63	63	60	57	54	51
Avg. income per Direct Beneficiary (honey only)			2688	2829	2978	3135

Assumptions:

Members in current network that can source cape chestnut	250
Estimate of honey producers who do not sell honey to DE, but collect cape chesnut exclusively for DE	150
Average # of producers per ton of comb honey today will only reduce due to efficiency/new hives in 2014	63
Estimated total purchase of comb honey (in tons) by DE in 2013 (to-date)	7
After 2013, honey producers collecting wild products for DE will begin selling honey to DE as well	
Increase in honey production per producer will result from improved beekeeping practices/extension services or increase in hive sales	
Majority of wild harvest collectors are also beekeepers	

OPTION 2: MERGER/PARTNERSHIP WITH LIKE-MINDED SOCIAL ENTERPRISE

- **OVERVIEW**
  - Provided the right partner is identified and the right partnership agreement is established, a hybrid merger of Desert Edge with a like-minded social enterprise could be a profitable/sustainable, mutually beneficial relationship with significant long-term local impact.
  - Under this option, Desert Edge would operate as the non-profit partner and work via a coordinated plan in conjunction with the for-profit operating partner, an already established and proven social enterprise who can deliver significant demand day 1.
  - **DE's Role/ Responsibility:**
    - Provide on-going technical assistance/ capacity building for its current producer base to maintain the supply chain, increase per hive volumes and ensure adequate quality and loyalty.
    - Train and incorporate new farmers in the Laikipia and Samburu regions as demand (from the partner) dictates.
    - Promote and install new more efficient hives among existing and new suppliers.
    - Provide micro-loans/ supply chain financing to producers in network for pre-harvest financing, collection, productive inputs and new hive installations (using initial capital from remaining AWF financing)
    - Very streamlined DE operating costs, estimated at ~$4,872, to be covered by remaining AWF financing for first 2-3 years.
  - **Business Partner's Role/ Responsibility:**
    - Incorporate DE's existing and new small-holder suppliers into business' supply chain.
    - Buy 100% of all agreed upon raw products sourced from DE producers.
    - Pay a pre-negotiated price (e.g. monthly avg. from 3-5 pre-established markets), plus Fair Trade type pricing premium (for supply chain financing).
    - Provide management and operational support to DE via participation on Board of Directors and close collaboration between two organizations on supply chain training, sourcing, etc.
    - Beginning in year 2 or 3, pay DE for supply chain maintenance and expansion support provided that DE is doing a good job and meets their quality requirements
      - May be an opportunity for DE to expand and provide services to partners entire supply chain if work is good
    - AWF may require seats on BOD of partner organization and specific impact covenants and requirements as part of deal.

- **KEY CHANGES & REQUIREMENTS**
  - Desert Edge Staffing: 1 Director who manages staff, training program, supply chain functionality & efficiency, and oversees credit officers; 1-2 experienced Micro-Finance Credit Officers; 2-4 Extension Officers charged with day to day management, maintenance and training of supply chain.
  - Sign a formal contract for the long-term partnership including terms that ensure Desert Edge's (and its funders') original mission and objectives will be met, and that producers will receive fair pricing.
  - Packaging, distribution and sales responsibilities are transferred to the strategic partner organization.

OPTION 2: MERGER/PARTNERSHIP WITH LIKE-MINDED SOCIAL ENTERPRISE

► **PROS & CONS CHART**

Option 2: Hybrid Non-Profit/ For-Profit Merger with Like-Minded Social Enterprise

Pros	Cons
• Access to strong management & oversight ensures future success of Desert Edge • Access to proven innovative appraoches to scalable socio-economic impact on small-holder producers. • Strategically aligned missions, visions and objectives. • Grant funding to Desert Edge is used directly to reduce the cash burden to producers, via microfinance loans, that inhibits greater volume honey production (and greater income generation). • Grant funding to Desert Edge is used to reduce the working capital burden to partner that prevents the company from expanding more rapidly to work with more small-holder producers. • Desert Edge's existing knowledge of beekeeping and other natural products is exponentially strengthened through partner's sector knowledge. • Opportunity for Desert Edge to generate additional revenues by selling related products, such as HCA's langstroth hives, which also yield higher volumes of honey than the log hives that dominate the Laikipia/Samburu region.	• The initial vision for Desert Edge's role in building bio-enterprise is somewhat redefined. • Desert Edge no longer plays the marketing & branding linkage to local bio-enterprise, but rather facilitates that linkage on behalf of an existing brand that has already proven great success in marketing & sales of retail products. • Desert Edge's funders may find this strategy too innovative and oriented toward supporting an existing for-profit company rather than the non-profit company Desert Edge was designed as.

► **RECOMMENDED TERMS OR PARTNERSHIP**

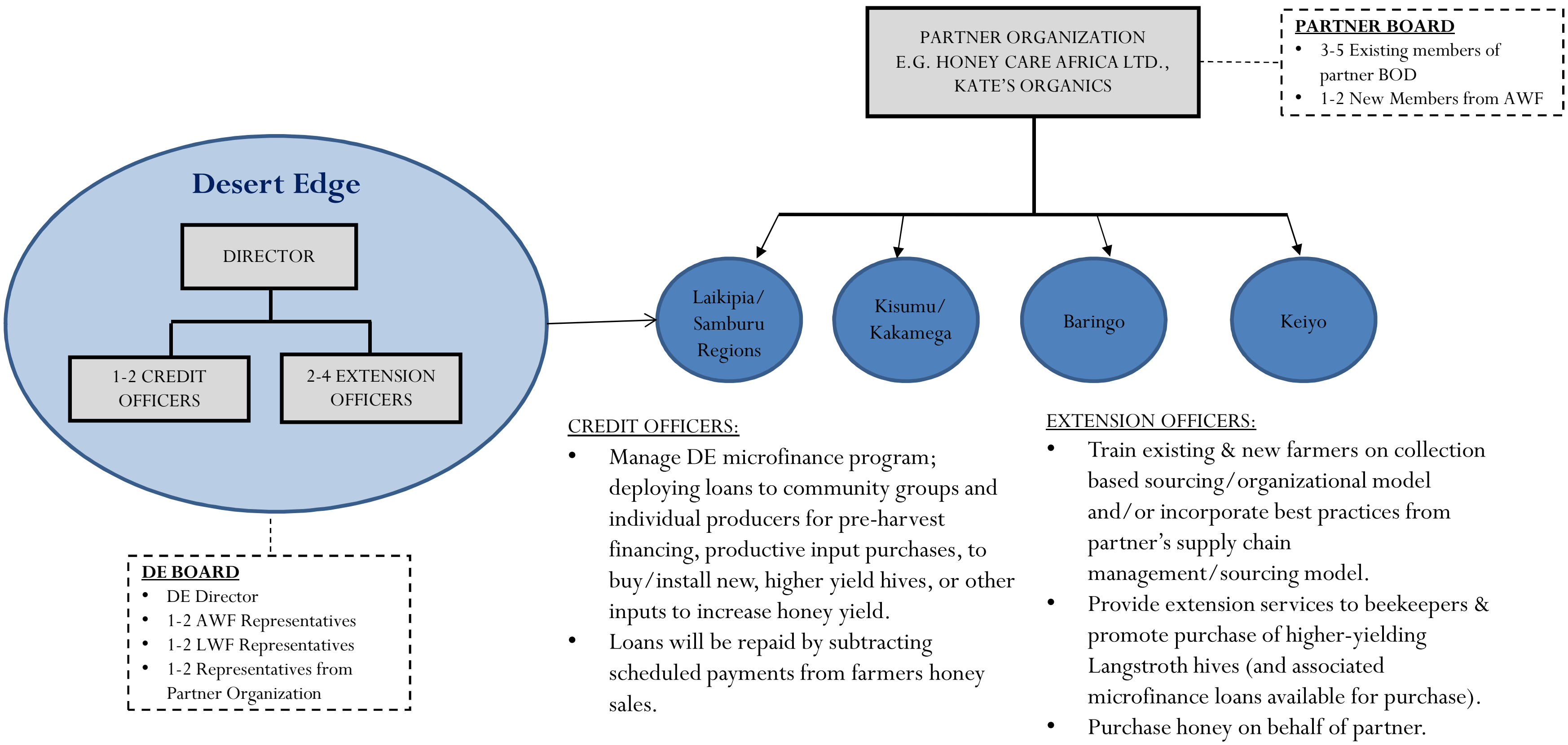
- Establish pre-negotiated pricing for raw/ semi-processed products, e.g. monthly average from 3-5 local markets plus a premium of ~5% per kg. (I-DEV has built a KES 10/kg premium into the Option 2 model).
- Establish minimum purchasing volumes that scale up over time.
- Establish minimum impact covenants for partnership that scale over time, e.g. # of local suppliers, income/farmer, volume/farmer, etc.
- If a full merger is structured with one dedicated partner, AWF may consider negotiating a seat on the board of partner organization in order to provide high-lever oversight and guidance to both parties in terms of strategic and operational alignment.
- Placing the CEO of the partner organization on the board of DE or on an advisory board will also ensure greater alignment between entities.
- AWF funds DE's operating costs for 2-3 years.
- AWF provides ~$US40,000 in capital to create micro-loans facility that DE will administer, which will allow DE to deploy microfinance loans to producers who wish to increase or improve their honey yield. I-DEV has built in a 50% buffer in terms of recommended funding to DE in order to allow for more rapid scale of microfinance loans for the sale of hives or other inputs. This should be re-assessed with the partner organization and based on the partner's projections for possible growth given the environmental and distribution constraints/untapped opportunities in Laikipia and Samburu.

Option 2: Potential Partners

- **Potential Partners**
  - Honey Care Africa (HCA) is the most likely partner for this hybrid merger. They are a leading/ well established Kenyan branded honey retailer.
    - A partnership with HCA would only be for honey and bees wax, at least, initially. May have interest in sales of HCA's Langstroth hives in the medium to long-term.
    - HCA's Mission: To support millions of farming families to grow out of poverty as Africa's honey company.
    - HCA's current revenues: Greater than $200,000 per year
    - HCA Impact:
      - Honey is sourced from a network of ~2,000 small-holder farmers that are typically organized into neighboring "cluster" sites that allow for efficient honey collection and hive servicing.
      - Targeted impact by 2017 is ~500,000 individuals through direct employment & purchase of honey.
    - HCA's producers sign a contract to sell 100% of honey produced in exchange for "free" extension services, including a monthly visit to ensure that hives and honey production is healthy. Extension officers do all the honey harvesting to ensure quality/responsible harvest and hive maintenance, then weigh comb honey and pay a fixed price to farmers that is defined in the contract.
    - HCA's long-term pricing objective is KES 140/kg for comb honey or KES 210/kg pure honey; however, they currently pay KES 170/kg for comb honey, plus build in a premium associated with the cost of hive purchase that factors in total cost of ongoing extension services to honey producers.
      - Highest price paid to a third-party wholesaler is KES 260/kg for pure honey.
  - Kate's Organics is another well-recognized Kenyan retail organics brand that has expressed interest in a partnership, which would allow DE to focus on organic only production and a broader range of products.
    - Products of interest: Honey, Stinging Nettle, Aloe
      - Products sold by Kate's include retail honey, aloe juice, antioxidant and herbal teas
    - Potential future interest in: Seketet
    - Kate's Organics Mission: To promote healthy living to Kenyans.
    - Kate's Impact:
      - Works with single mothers and widows to train them, assist with organic certification and to grow/sell demanded natural products
    - Over 5 million customers in Kenya; leading national brand.
    - Only buy 100% organic ingredients, but will pay between KES 200-300/kg of pure honey, and possibly more. Pricing on other products was not given.
  - See additional potential partners in the Desert Edge Today section.

► **ORGANIZATIONAL & OPERATING STRUCTURE**

Hybrid Merger Organizational Structure



Option 2: Merger with a Like-Minded Social Enterprise

- **Supply Chain Implications**
  - Would most likely only (or primarily) focus on honey and honey related products.
  - **Need to improve transparency & quality control:** While its supply chain is Desert Edge's greatest asset, it is still weaker than many other supply chains we have seen. Desert Edge must increase the accuracy of its data collection in the field in order to assess where inefficiencies lie and improvements over time, especially in relation to Extension Officer's time and uses of time and cost per revenue unit.
  - **Strengthen collection center model:** Desert Edge has only loosely developed a collection center based supply chain model. Many similar organizations have had a great deal of success implementing robust hub and spoke collection center supply chain models where the collectors are high performing, reliable members of the farmer groups they work with.
    - I-DEV would recommend that DE identify 10-12 farmers that may make good, reliable collectors and have them act as DE buyers in their local area, with the goal of eventually settling into 6 buyers/ collection centers (keeping the top performing 6) and paying collectors some small amount per kg of product they aggregate (i.e. 1-3% of each purchase). DE field staff then collects aggregated product directly from collection centers. Will reduce supply chain costs and increase efficiency considerably.
  - **Establish a community secondary benefits program:** The farmer loyalty/ secondary benefits program that would offer additional benefits to DE producers for selling at least 85% of their production to DE/ Partner.
    - Benefits could include – Access to free special training to increase production yields, access to discounted productive inputs, discounts on new hives, discounts on school supplies, home construction/ contracting fees, access to healthcare and life/funeral insurance, access to crop micro-insurance.
  - **Adapt Partner Best Practices:** Opportunity to learn from, adapt and incorporate the best practices from new partners supply chain management, training and sourcing model; such as HCA's Cluster based model or a modified version of its Cluster Model & Field Extension Services
  - **Build-out local Langstroth hive manufacturing & sale:** Desert Edge might also consider launching local production of HCA's Langstroth (higher honey yield) hives to be sold in the Laikipia/Samburu region.

- **Staffing & Team Implications**
  - Under this model, DE would reduce staff to a director, 1-2 credit officers, 2 extension officers (with the option to add more upon scale) or demand.
  - **Director**
    - **Role:** Manage day-to-day operations; oversight of working capital fund and uses; ensure that loans deployed and extension services are meeting the needs of partner organization by structuring relevant loan products and training/extension protocol; oversees general finances and strategic direction of the entity; support partner organization in training and educating extension officers on field training.
    - **CV:** Previous experience in microfinance, preferably related to small-scale agricultural and honey/hive/beekeeping sectors, or for-profit business. College degree, possibly a master's in business administration or finance, and a strong understanding of microfinance and corporate finance.

- Neither Okwach nor other members of the team appear to have the appropriate skill set for this position. Lumbasi may be the closest; however, his ability to execute and understanding of finance may be restrictions.

- **Credit Officers**
  - **Role:** Promote DE's loan products to local producers; serve as key liaison between partner organization and producers in Laikipia/Samburu who could benefit from a working capital loan; provide general training to producers to educate them on the terms of the loan and pricing; provide other supply chain/sourcing support.
  - **CV:** Basic understanding of microfinance, and ability to learn about and promote loan benefits and the partner organization.
  - Based on interviews, current extension officers may not be appropriate for this role because they lack attention to detail, especially related to number and data collection.
- **Extension Officers**
  - **Role:** Promote exclusive sale of products to partner organization in exchange for a DE loan; provide extension services to monitor health of bee hives and other plant species, as well as closely track defined relevant supply chain and social/environmental metrics; lead trainings to local producers on proper wild harvest and/or beekeeping.
  - **CV:** From the region where he will be operating, understanding or willingness to learn beekeeping and wild harvest protocol, ability to track and collect accurate field data and report to Director on a weekly basis. Strong sales skills and comfort promoting DE and partner organization to communities.
  - Current extension officers should be assessed on their ability to learn new, more efficient community training protocol; collect & report accurate data to DE; and educate producers on the value proposition that DE and the partner organization offer.

► **ESTABLISH RELEVANT KPIS TO PROVIDE DIRECTION TO STAFF.**

Recommended KPIs

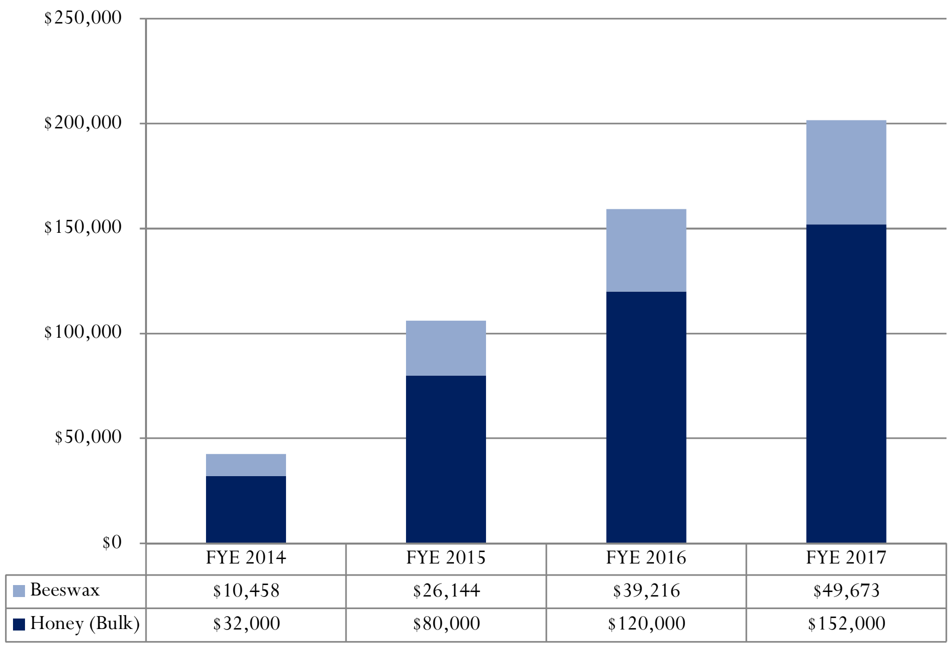
Target	Sample KPIs
Organization-Wide	• Total volume purchased & sold each year (per product) to partner organization • Avg. increased income per producer • Number of Producers • # of microfinance loans extended • Increase in total volume production of honey
Director	• See Firm-Wide KPIs, plus… • Increase in volume of honey per Extension Officer's region • Number of dedicated sellers/groups selling to partner organization(or year-over-year increase in producer loyalty as a percentage of members in a given community group) • Increase in honey yield per hive (hive efficiency) • Increase in number of dedicated collection centers established (with a minimum of 1 established per region and a minimum of 1.5-2 tons of honey per collection center per year)
Credit Officers	• Number of microfinance loans extended to producers • Number of loans repaid through sale to partner organization
Extension Officers	• Increase in average honey yield per hive (hive efficiency) • Achievement of 10% annual increase in volume honey purchased per year by partner organization • Increase in honey purchased per individual producer • Average costs per hive or sourcing cost per ton of honey

- **BOD should establish incentive-based compensation tied to KPIs for all DE staff.**
  - Desert Edge's culture should encourage and incentivize all of its employees to achieve meaningful, impact & profit-driven results.
  - The Director should have at least 50% of their salary tied to performance on key indicators via upside bonus (smaller guaranteed salary with very nice upside total salary for achieving results).
  - Other employees should have at least 30%-50% of their salaries tied to performance on key indicators via upside bonus (smaller guaranteed salary with very nice upside total salary for achieving results).
  - Employee contracts should be reviewed by the Board of Director on an annual basis, and employment contracts should only be extended another year if the employee has achieved 75% of his/her target KPIs.
- **Other Considerations**
  - Desert Edge needs a strong and proactive Board of Directors, consisting of a minimum of 2 directors with finance and business experience. Consider placing the CEO or Managing Director of the partner organization on the Board to ensure alignment of objectives.
  - Desert Edge should consider placing the CEO on the board to provide additional business strategy and executive support.

OPTION 2: FINANCIALS

► **PROJECTED FINANCIALS & ADDITIONAL CAPITAL NEEDS**

Option 2: Bulk Honey Pass Throughs to a Partner ($US)



Option 2: Total Operating Budget

	FYE 2014	FYE 2015	FYE 2016	FYE 2017
Total Operating Budget	$79,282	$80,024	$80,803	$81,621
% of Pass Throughs	187%	75%	51%	40%
Total Salaries	$64,235	$64,235	$64,235	$64,235

Option 2: Breakout of Micro Loans & Working Capital

	FYE 2014	FYE 2015	FYE 2016	FYE 2017
Micro Loans Extended Per Year	$4,706	$9,412	$11,765	$14,118
Honey working capital	$33,464	$83,660	$125,490	$158,954

Option 2: Grant Funding & Capital Requirements

	FYE 2014	FYE 2015	FYE 2016	FYE 2017
Total Annual Budget Requirement	$44,023	$109,933	$164,983	$211,340
Annual Investment Requirement*	$44,023	$65,910	$99,074	$112,266
Addit. 50% Funding Buffer	$22,012	$32,955	$49,537	$56,133
Recommended Grant Funding**	$66,035	$98,864	$148,611	$168,400

*To fund operating budget for NGO only.

*Includes a buffer for additional bandwidth and/or additional allocation of microloans

OPTION 2: CONSOLIDATED INCOME STATEMENT

USD	*(in KES or USD)*	ACTUAL					
85	*Exchange Rate (KES/USD)*	FY 2012					
		2012 KES	2012	FYE 2014	FYE 2015	FYE 2016	FYE 2017
Pass Through Revenues							
Honey				$42,458	$106,144	$159,216	$201,673
Total Revenues		**21,870,583**	**$257,301**	**$42,458**	**$106,144**	**$159,216**	**$201,673**
Cost of Goods Passed Through							
Honey				$34,125	$85,143	$127,659	$161,673
Total COGS		**1,310,352**	**$15,416**	**$34,125**	**$85,143**	**$127,659**	**$161,673**
Other Revenue or Pass Throughs							
Interest Income on micro-finance loans				$1	$3	$3	$4
Fee revenue (partner)				$0	$0	$0	$0
Total Other Revenue				**$1**	**$3**	**$3**	**$4**
Operating Expenses							
Salaries				$64,235	$64,235	$64,235	$64,235
Total Operating Expenses		**18,119,523**	**$213,171**	**$79,282**	**$80,024**	**$80,803**	**$81,621**
% of Revenues			*82.8%*	*186.7%*	*75.4%*	*50.8%*	*40.5%*

OPTION 2: KEY ASSUMPTIONS

► **INVESTMENT REQUIREMENTS**

- Recommended grant funding allocates total funding required to cover DE's operating budget, inputs and builds in a 50% buffer of additional funding to provide some room for variation in actual cash needs and pricing.
  - Annual allocation of grant funding to DE should be dependent on the company achieving a minimum requirement of success targets, e.g. a minimum of 75% of target company wide KPIs.
- AWF might also consider working with third parties to support implementation of the merger model, including the legal structuring and organizational model. While the partner organization should be able to provide significant insight and support, initial transition should be closely monitored and ideally supervised by a third party or possibly an active board member with business expertise.
- AWF should also consider investing in capacity building to train staff on business and financial considerations including interpreting financial projections, developing & adhering to KPIs and incentive structures, building supplier loyalty and negotiation purchasing price, establishing collection centers to reduce collection costs, as well as securing and negotiating wholesale contracts.
  - Capacity building requirements are expected to be less than the $200,000 allocated to the wholesale supplier model, but may vary depending on the merger partner selected.

► **KEY ASSUMPTIONS**

Option 2: Merge

SG&A (per year)	KES	$US	Details
# of Staff			5 F/T employees. Director, 2 credit officers, and 2 extension officers to begin.
Total salaries/year	4,758,000	$55,976.5	
Communcations	180,000	$2,117.6	Assumes 5 phones x KES 1000 per month. No land line. KES 10,000 for wifi.
Advertising & Promotions	-	$0.0	No advertising necessary if merged with a partner.
Office Rental	-	$0.0	DE office expense is paid by partner organization or CEDP/LWF, as is currently the case.
Repairs & Maintenance	340,000	$4,000.0	Based on current cost to service vehicle every 5,000 km. Minimal equipment servicing costs.
Professional Fees	155,000	$1,823.5	Based on current costs for auditing (KES 155,000).
Employee travel, meals & accomodations	50,000	$588.2	Assumes 5 trips per year to Nairobi or other locations to meet with partner organization & management.
Employee & Producer Training	500,000	$5,882.4	Assumes DE focuses the majority of its efforts on increasing regional product yield through trainings, which may also include trainings on how to make Langstroth hives for local sale, etc.

Other Assumptions	KES	$US	Details
Purchase Price per Kg of:			
Comb Honey	160	$1.9	Assumes 80% of purchased comb honey is KES 200/kg and 20% of purchased honey is KES 185/kg, DE's current pricing.
Yield per Kg Comb Honey:			
Pure Honey			90% yield. Minimal waste.
Wax			10% yield. Minimal waste.
Sales Price per Kg of:			
Pure Honey (Bulk)	170	$2.0	Assumes a reduced price in line with what HCA is targeting for its internal supply chain and cluster sites.
Wax	500	$5.9	HCA is willing to pay KES 500-600/kg for good beeswax.
Average Units Sales Per Month for 2014:			
Pure Honey (Bulk)			3,000 kg or 3 tons per quarter. Assumes DE can increase its yield through close support and capacity building from experienced partner organization.
Wax			333 kg per quarter. Assumes all wax produced is sold. 10% wax yield per kg of comb honey purchased.
Assumed Annual Growth Rates:			
Honey Production			71% increase in 1st year based on access to additional working capital and microfinancing to farmer, combined with expertise on supply chain sourcing and development of supplier loyalty acquired from partner organization. After the 1st year, increases are 100%, 67% and 50%.
Producer Dynamics:			
Avg. kg honey sold per producer per year			16 kg per producer, based on figures provided by Maxwell Lumbasi.
Avg. Kg of cape chestnut seed per producer per harvest			80. Based on 73 kg per producer per year that collected the initial 10 ton purchase in 2010.

OPTION 2: MICROFINANCE SCHEDULE & SOCIAL IMPACT

► ANTICIPATED MICROFINANCE SCHEDULE

- Assumes average microfinance loan size will be KES 10,000, which is sufficient to purchase 2 new Langstroth hives to increase honey yield per farmer, or to purchase other key inputs such as flowering plants that will also increase honey yield.
- In Year 1 (2014), DE will be able to deploy 5 microfinance loans per quarter, or a total of 20 microfinance loans. This increases to KES 75,0000 in microloans per quarter in 2015, then KES 100,000 in microloans per quarter in 2016, and KES 150,000 per quarter in 2017.
- The following loan schedule also assumes limited to no default and a 2 year payback period in 4 equal payments with 10% annual interest.

Loans Disbursed			Q1 2014	Q2 2014	Q3 2014	Q4 2014	Q1 2015	Q2 2015	Q3 2015	Q4 2015	Q1 2016	Q2 2016	Q3 2016	Q4 2016	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Total
New Loans KES	Qtr loan was made	KES	$1,176	$1,176	$1,176	$1,176	$2,353	$2,353	$2,353	$2,353	$2,941	$2,941	$2,941	$2,941	$3,529	$3,529	$3,529	$3,529	$40,000
Payment received KES	Q1 2014	KES		-$294		-$294		-$294		-$294									-$1,176
	Q2 2014				-$294		-$294		-$294		-$294								-$1,176
	Q3 2014					-$294		-$294		-$294		-$294							-$1,176
	Q4 2014						-$294		-$294		-$294		-$294						-$1,176
	Q1 2015							-$588		-$588		-$588		-$588					-$2,353
	Q2 2015								-$588		-$588		-$588		-$588				-$2,353
	Q3 2015									-$588		-$588		-$588		-$588			-$2,353
	Q4 2015										-$588		-$588		-$588		-$588		-$2,353
	Q1 2016											-$735		-$735		-$735		-$735	-$2,941
	Q2 2016												-$735		-$735		-$735		-$2,206
	Q3 2016													-$735		-$735		-$735	-$2,206
	Q4 2016														-$735		-$735		-$1,471
	Q1 2017															-$882		-$882	-$1,765
	Q2 2017																-$882		-$882
	Q3 2017																	-$882	-$882
	Q4 2017																		$0
Total payments received				-$294	-$294	-$588	-$588	-$1,176	-$1,176	-$1,765	-$1,765	-$2,206	-$2,206	-$2,647	-$2,647	-$2,941	-$2,941	-$3,235	$0
Beginning Balance			$0	$1,176	$2,059	$2,941	$3,529	$5,294	$6,471	$7,647	$8,235	$9,412	$10,147	$10,882	$11,176	$12,059	$12,647	$13,235	
payments received				-$294	-$294	-$588	-$588	-$1,176	-$1,176	-$1,765	-$1,765	-$2,206	-$2,206	-$2,647	-$2,647	-$2,941	-$2,941	-$3,235	
new loans			$1,176	$1,176	$1,176	$1,176	$2,353	$2,353	$2,353	$2,353	$2,941	$2,941	$2,941	$2,941	$3,529	$3,529	$3,529	$3,529	
Ending Balance			$1,176	$2,059	$2,941	$3,529	$5,294	$6,471	$7,647	$8,235	$9,412	$10,147	$10,882	$11,176	$12,059	$12,647	$13,235	$13,529	$0

► ANTICIPATED IMPACT

Impact Projections: Option 2

Year	2013 Actual	2013 YE	2014	2015	2016	2017
Direct Beneficiaries via Sales to Partner Organization	465	500	313	869	1449	2039
Increase in honey production per producer	0%	0%	10%	10%	10%	10%
Avg. # pp/ton honey purchased	63	63	57	51	46	41
Avg. income per Direct Beneficiary (KES)			2816	3129	3477	3863

Assumptions:

Average increase in honey yield per producer of 10%, higher than the 5% in Option 1, assuming the partner organization will improve capacity building efficiency

NOTE: While # of direct beneficiaries is lower, the increase in income per farmer increases from KES 2,540/farmer in 2014 to KES 3902/farmer by 2017.

Option 3: Cease Operations

- **Overview**
  - Desert Edge ceases all operations, liquidates all assets and staff is let go.
  - Proceeds from asset sales used to pay any debts and liabilities.
  - Remaining AWF funds can be invested in other programs.

- **Rational**
  - **Limited confidence in DE team and Board's ability to execute successfully on making DE profitable.**
    - Eric Okwach has not focused on the right executive priorities, especially partnership development with large volume buyers.
    - DE board members are largely inactive and have not pushed for DE's improved performance.
    - Board and managers have demonstrated a limited understanding of ability to make realistic growth projections, cost or price products in order to achieve per unit profitability or adhere to any target growth or sales targets.
  - **No significant success in building a well-run, cost-effective or dedicated supply chain.**
    - While DE has a network of over 1,600 producers and pays a fairly competitive price for honey and other products, few of the producers are loyal sellers to the company, preferring to sell to local middle men, markets and other buyers offering a higher price per kg.
    - All non-honey products have only been successfully sourced once, and in small quantities.
    - Extension officers' time is not tracked or regulated with much of the staff questioning their effectiveness and activities while in the field. They have clearly failed to build supplier loyalty to DE, and interviews with management suggest that they cannot be trusted with additional responsibilities including accurate data collection or supporting communities to stabilize aloe or do other basic quality control.
  - **Insignificant sales**
    - Historical year-over-year sales have fluctuated substantially with data from January-April 2013 suggesting that DE's sales will be lower this year than in 2012.
    - Current volumes being sold are not profitable, and reaching significant scale is critical to future profitability.
    - DE has only focused on the local market and on-off sales opportunities vs. larger and longer-term partnerships to reduce the costs associated with sales & marketing and to increase volume purchases.

- **Weak partnerships**
  - Traditional focus on non-profit and government partnerships rather than business partnerships to drive sales.
  - The majority of MOU's proposed have not been executed, leaving existing partnership loosely defined and with limited value. This includes partnerships with KWS and ICIPE.
- **No clear competitive advantage.**
  - DE has a decent brand in Laikipia; however, its varied quality (related to packaging & crystallization of honey) and history of poor communications/follow up with clients has left parties largely neutral or optimistic, but not yet confident in DE's ability to deliver.
  - DE's brand has limited and only local recognition; staff is average with mixed reviews from past partners, clients and others; history of inconsistent sales and stock outs; poor follow up and ability to execute on order commitments or partnership leads.
  - Generic brand and generic, largely unproven or quantified social impact.
- **No solid core team.**
  - Maxwell Lumbasi & David Njuguna appear to be the only core staffers offering a value-addition. However, the two do not get along and no particular staffer is able to gain the respect to serve as a clear leader of the organization.
  - Ongoing tension tied to perceived unfair distribution of salaries between field staff and office staff, and the sense that field staff (and Njuguna) do all the work while others set the rules and limit productivity.
  - In general, no single staffer is fully qualified for the position for which he/she was hired. The one exception may be Njuguna, Director of Bee Enterprise.
- **Under either option 1 or 2, AWF would have to put additional funding into DE.**
  - DE has already absorbed roughly $US 2MM in grant funding, yet failed to achieve almost all of its social, environmental or profitability targets, despite those targets being revised down under each new business plan and proposal.
  - Further investment of grant funding into DE does not guarantee success, and will require significant hurdles be passed to achieve sustainable socio-economic and environmental impact.
- **Breakeven requires…**
  - **Option 1:** Significant volume. Breakeven would be achieved only after 2017, and assuming DE can continue to grow to where volume sales exceed its operating expenses.
  - **Option 2:** Breakeven is not a target; However, it will be achieved after 2017 or possibly sooner based on the premium charged to the partner organization for services provided by DE.
- **No guarantee of successful turnaround.**
  - DE's future success will hinge on rapid and efficient scale and ability to build a stronger supply chain, disciplined and strategically-focused employees, and a dedicated buyer network.
  - DE has already experienced 3 different Program Managers, and a staff restructuring in late 2012 that led to the re-hire of 60% of the previous staff that has resulted in no to minimal profit or scale improvements.

Option 3: Cease Operations

- **Pros & Cons Chart**

Option 3: Close Desert Edge

Pros	Cons
• Allows grant funding to be invested in new opportunities that may have greater impact due to stronger management.	• Desert Edge is closed, and producers selling honey to Desert Edge must now sell to other parties. • Groups that have collected cape chestnut seed and seketet may not find another existing buyer.

- **Details of Option 3**
  - Desert Edge ceases operations almost immediately.
  - A skeleton staff (1-2) stays on to liquidate all DE assets, close out books and legally dissolve the company.
    - Equipment may be sold to communities, ICIPE or other honey companies.
  - CEDP can continue as a non-profit program housed under LWF, focused strictly on capacity building.

- **Other Considerations**
  - **Anticipated Impact**
    - Given Desert Edge's limited supplier loyalty and history of only small purchases of wild harvest products, the impact associated with discontinued purchasing from communities is limited. Honey producers, in particular, would find another buyer.
    - Negative impact for 250 cape chestnut collectors and 25 seketet collectors, who may have trouble finding new markets for those products.
    - Impact associated with discontinued capacity building- activities typically associated with CEDP- would be greater, given the estimated 1,600 individuals that Desert Edge has trained or supported with extension services and access to wild harvest/organic certification.
  - **Staffing & Team Implications**
    - 15 employees are let go. Some may be absorbed under CEDP program if LWF decides to continue the initiative as a non-profit program within their organization.