



# Sustainable Commercial Beekeeping In Machakos, Homabay & Busia

Progress Report  
August 2011



**Kujenga Maisha East Africa (KUMEA)**

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## 1.0 EXECUTIVE SUMMARY

KUMEA (Kujenga Maisha East Africa) is the development arm of the New Apostolic Church, East Africa. The organization is officially registered as an NGO in Kenya with branches to be set up in Uganda Tanzania and Zanzibar. It is a Faith Based Organization (FBO) whose core aim is to facilitate the poor communities in East Africa to realize sustainable socio-economic development.

KUMEA does not discriminate people in its programs. It operates beyond church borders. KUMEA works with Partners that promote improved livelihood in the communities and that engage communities in working together in groups in the areas of agriculture, water and sanitation and environment. The Organization uses the church operational areas to set up structures to reach out to its target groups

In February 2011, Kumea approached **Bishop John Eckhardt (Rtd)** of Canada with a project proposal for Sustainable commercial beekeeping in areas of Machakos, Busia and Homabay. On 1<sup>st</sup> March 2011, Kumea received a donation of **USD. 20,000/=** from the Bishop and immediately launched the project. The project aims at mitigating the effects of crop failure as a result of prolonged drought and poverty resulting from lack of appropriate life skills.

The sustainable commercial beekeeping project is planned to last for one year with five major events that include training of farmers in modern beekeeping methods; supply of the Langstroth beehives to farmers; supply of six frame centrifuge machines and a Farmers field day.

This report covers the period of March to August 2011. In this report, we consider the summary of activities against the budget, and we assess progress against our forward indicators which determine whether we are on track.

Until now, the following activities have been completed so far.

- An agreement between Kumea and Honey Care Africa was signed
- 45 farmers have received training in modern beekeeping
- 45 Farmers have been awarded certificates in Apiary level 1
- 135 Langstroth beehives have been supplied to 45 farmers.
- In Machakos, 21 beehives have been colonized with bees, 7 in Busia and 11 in Homabay.
- 3 Six frame centrifuge machines have been supplied by Honey Care Africa.
- Extension services are continuing to be offered by Honey Care Africa

### 1.1 Lessons Learned

- Farmers are eager to see outcome of the project
- Farmers who attended the trainings will no longer kill bees in order to extract the honey.
- Farmers will be more friendly to bees than before.
- Women will now participate in beekeeping as it had previously been a men only affair.

### 1.2 Challenges

Continuity of the project requires monitoring. The available funds may only provide one more visit to the farmers. It may not be possible to monitor the project to its end.

## 2.0 INTRODUCTION

Farmers in Busia, Machakos and Homabay face many problems in trying to make a living. In general, the causes of poverty are low farm productivity and low literacy rates. They are short of cash and credit to invest in their farms and to buy inputs. This makes it very difficult for them to pull themselves out of poverty, thus KUMEA targets to pull them out of poverty by introducing them to sustainable commercial beekeeping and linking them to the ready market provided by Honey Care Africa. An average family in these regions has 8 members. That means the project will impact at least 360 individuals. Training of farmers in the processes of commercial beekeeping will further augment their ability to provide practical skills to the young people in the communities.

### 2.1 Project Goal

To improve food security and household incomes among small holder farmers in the Regions of Busia, Machakos and Homa Bay.

### 2.2 Project Objectives.

- Establish 135 beehives and Introduce 45 farmers to commercial beekeeping.
- Introduce 45 farmers to beekeeping as an income generating activity.
- Provision of high energy food source for the families.
- Increase household incomes for the participating households.
- Cushion the community against crop failure.
- Create employment for 45 individuals.
- To establish an innovative model of microeconomic enterprise which can be replicated in other regions
- To enhance solidarity and sustainability of the communities.

## 3.0 TRAINING REPORT

### 3.1 Beneficiaries

The training targeted 3 Groups located in three different areas as shown in the table below;

DATE	REGION	VILLAGE	GROUP NAME	No. Of Participants.	Trainees	
					Males	Females
27 <sup>th</sup> – 29 <sup>th</sup> April	Machakos	Yatta	Kwa Masoo S.H.G	19	12	7
4 <sup>th</sup> – 6 <sup>th</sup> May	Homabay	Magunga	Magunga II B.K. S.G.H	15	8	7
10 <sup>th</sup> – 12 <sup>th</sup> May	Busia		Amka Twende S.H.G	18	9	9
			Kumea Staff	3	2	1
			<b>TOTAL.</b>	<b>55</b>	<b>31</b>	<b>24</b>

### **3.2 Gender Ratios 44% Women & 56% Men**

The training was based on the need to improve livelihoods through income generating activities to communities in the target areas. The main purpose of the training therefore was to provide the target group with the theoretical and practical knowledge on modern commercial bee keeping. A total of 55 participants actively participated in the training and would be expected to handle bee keeping with ease.

### **3.3 Objectives of The Training**

- To impart proper beekeeping skills to enhance production of quantity and quality honey that can sell locally and abroad to generate income hence help in improving family sustainability in the rural areas.
- To provide an opportunity to sharing experiences and learning new technologies in commercial bee keeping using Langstroth hive.
- To enable civil society organization and government to have an opportunity to appreciate bee keeping as a viable and sustainable project.

### **3.4 Participation**

A selection criterion was at least 15 participants from each beneficiary group were to attend the training; there was a positive response whereby the turn up exceeded the limit. The participants showed their willingness to be trained about the langstroth hive and the management practices that enable a beekeeper produce high yields of honey and of good quality as required by the modern market

### **3.5 Training Methodology**

During the training a more participatory method was employed putting into consideration the target group as having practical experiences within their locality with the facilitator/ trainer playing the lead role.

Illustrations and hands-on demonstrations formed the major part of the training as participants could grasp easily when given the opportunity to express their learning points in demonstration.

Eventually a more practical session was introduced where the participants were taken through a hands-on session demonstrating bating, Apiary preparation and transfer of colonized hives. A recap was done every morning to assess a previous day's learning where each participant had to participate.

During the presentations the participants were more than convinced that the bees are the best commercial 'partners' they had assumed for a long time and could change their livelihood to the better once given a critical mind. During the training Kiswahili language was used and translated to local dialect where necessary for better understanding in all sessions.

### **3.6 Training Norms**

Participants led by the facilitator in all the training sites were taken through some of the rules and time table that could enable the training session to run smoothly, together they agreed on

the following:

<b>TRAINING TIME TABLE</b>					
	<b>9.00 - 11.00</b>		<b>11.15 - 13.00</b>		<b>14.00- 16.00</b>
<b>Day 1</b>	Session 1		Session 2		Session 3
<b>Day 2</b>	Session 1		Session 2		Session 3
<b>Day 3</b>	Session 1		Session 2		Session 3

### 3.7 Participant's Expectations

- To know any other bee products apart from honey.
- To know whether we have English stingless bees.
- To learn how to hang box hives.
- To train on proper harvesting methods and how women can work with bees.
- To know the time duration bees take to make honey.
- To learn why honey is sometimes thick/light of different color.
- To train on the methods of catching bees.
- The importance of honey in our body.
- To be able to measure good quality honey
- To establish what determines comb pattern in a hive.
- To learn on honey marketing/bottling.
- To learn on how we can use/or do bee keeping to improve our incomes.
- How to choose an apiary site.
- To know the ways and how to be friendly to the bees.
- To get a certificate after the training
- To know the types of bee hives
- Educations on bees to enable one become a trainer of trainers.

### 3.8 Practical Session

The participants went for the practical training where the following were drawn from the demonstration site;

- How to use the modern bee keeping equipments. - Wearing a bee suit, Lighting a smoker etc
- Colony management practices.
- Supering – introduction of pure honey storage chamber.
- Features of a potential apiary.
- Demo on hive parts and uses
- Identification of bee forage plants and other crops

From the practical sessions, the recap clearly showed that the participants who had been fearing bees were now rearing to go and could share their learning points.

### 3.9 Training Challenges

- Language Gap;  
This was experienced at Magunga and Busia. Some of the participants were old and could not speak or write either English or Kiswahili. Translation was done for them but the trainer was not sure whether it was properly done as he could not also understand the language. This also took extra training time.
- Lack of Colonized Hives for Practical's  
In all the three areas there were no hives nearby that could be used for practical training.
- Poor Roads & Means of Transport
- At Homa Bay and Busia, the last parts of the journey to the training venues were long and could only be covered by boda boda (motor cycle).
- It was difficult with all the training materials to be transported. Magunga could only be reached on saloon cars which were overloaded to the carrier.

### 3.10 Recommendations

To ensure that this enterprise becomes successful it is recommended to conduct on-site practical training on honey extraction. This will be necessary when delivering the extractor since none of the trained groups has a picture of how it works.

- Follow-up at different stages of hive and colony management e.g.
- Apiary preparation and hanging hives to catch bees.
- Supering and harvesting
- Demonstration/field day.
- Follow-up on hive hanging to catch bees, and apiary construction.
- Follow-up on hives transfer into the apiary, first inspection after transferring and colony and apiary management.
- Follow-up on supering pre-harvesting inspection and harvesting.
- Follow-up on proper honey super storage and honey extraction.

During the honey season a demonstration on extraction can be done at the processing centre and all bee-keepers, other farmers and stake holders be invited to witness. This will encourage those not serious and invite more new ones to the enterprise. If any honey buying the farmers can be paid on the spot to practically demonstrate income generation from the enterprises.

## 4.0 PARTICIPANTS LIST

### 4.1 Kumea Staff

	NAME	ID Number
1.	Joseph Opemba Ekhuya	
2.	Johnny Aura Shikuku	
3.	Rosslyn Kulohoma	

### 4.2 Kwamasoo Self Help Group (Machakos)

	Name	ID Number
1.	Musembi Mutiso	3457219
2.	Agnes Nthule Mbatha	3697818
3.	Nicholas Kioko Nguta	1671509
4.	Victoria Ndinda Mutuku	7196923
5.	Alphonse Muia Nguku	5055807
6.	Peter Kioko Ndunda	27477120
7.	Paul Muindi Muange	8995828
8.	Patrick Mbithi Musembi	13496366
9.	Rosalia Ndila Masila	23842702
10.	Simon Matheka Muindi	0700950
11.	Jane Mueni Mutua	28254567
12.	Jacinta Mbatha Mbomba	20675140
13.	Agnes Thula Mbatha	3697818
14.	Cecilia Ndunge Kithuka	13832005
15.	Samuel Kiilu Mbatha	26547182
16.	Muthini Mulinge	2197781
17.	Musembi Mutiso	3457219
18.	Dominic Mbatha Wambua	
19.	James Mutuku Masila	

### 4.3 Magunga 11 Self Help Group (Homabay)

	Name	ID Number
1.	Wilson S. Andiego	8154502
2.	Laban Karan Adidi	7310431
3.	Eunice Adhiambo Odunga	27183803
4.	Francis Mbewa Adan'ga	10792956
5.	Elseba Agutu Oima	7310712
6.	Moris Odunga Oluoch	12905985
7.	Michael Ogogo Okumu	6612141
8.	Anna Nyakwaka Atieno	2648313
9.	Michael Odundo Hono	12460304
10.	Ruth Atieno Lazaro	26415781
11.	Samson Igadwa Mbwaga	7310658
12.	Esther Atieno Ndiro	



13.	Rael Kanaiza Gadwa	12905995
14.	Peter Otieno Oluoch	12460304
15.	Susan Ongayo Sikuku	9397910

#### 4.4 Amuka Twende Self Help Group (Busia)

	<b>Name</b>	<b>Id Number</b>
1.	Peter Egesa	571704
2.	Pamela Ajambo	
3.	Wilfreda Motoka	21883952
4.	Josephat Etenyi	
5.	Everline Abwire	9467073
6.	Sakaria Okanya	571861
7.	Gladys Taabu	10748161
8.	Everline Esonga	624514570
9.	Fredrick Wanyama	7920528
10.	Evans Nalisi	21837989
11.	Harrison Omwingi	570506
12.	Celestine Barasa	
13.	Pamela Ouma	10412281
14.	Leonida Kwoba	6764119
15.	Christine Mangeni	20604320
16.	George O. Makoicha	
17.	Michael Makecho	
18.	George N. Boira	

5.0 PHOTO STORY

5.1 Machakos



5.2 Homabay



5.3 Busia

