

## Sustainable Agricultural Livelihood Restoration, Rehabilitation and Resilience in Kenya Training Manual

### 3.1.2 SUB-MODULE 2: BEEKEEPING EQUIPMENT AND ACCESSORIES

#### Introduction

This sub-module addresses issues of beehive technologies and up-scaling to reach the larger community for increased productivity, promote technologies and innovations and enhance the livelihoods of the beekeeping community. Traditionally bees were kept in baskets, pots, guards, barks and logs.



Basket hives



Log hive

#### *Advantages of traditional log-hives*

- The occupation rate is higher because of hanging high up on trees
- Yields more wax and propolis
- Affordable and durable
- Easily available depending on the type of hive.

#### *Disadvantages of traditional log-hives*

- Management is limited
- Not easy to control pests, diseases and predators
- Harvesting, methods can lead to the loss of bees and the quality of products
- Not gender friendly
- Causes uncontrolled logging of indigenous trees.

## Sustainable Agricultural Livelihood Restoration, Rehabilitation and Resilience in Kenya Training Manual

Modern beekeeping uses modern hives mainly KTBH, Langstroth and various modifications of the Top bar hive.



Langstroth hive



KTBH

### ***Advantages of KTBH***

- Bars may be taken out for inspection
- Effective for wax production
- Good for comb honey production
- Because the queen excluder isolates the brood from the honey, the queen is not disturbed during hive inspection and harvesting
- Honeycombs can be taken out without upsetting the nest's young.

### ***Advantages of the Langstroth hive***

- The combs are not destroyed during harvesting hence bees can take a shorter time to refill
- It is expandable by adding a super box so that bees can continue adding combs- important for deferred harvesting
- Relatively higher yields per hive.

The Langstroth hives require farmers to have a honey extractor to extract honey from the frames. It is not suitable for beeswax production since the combs are not produced.

### ***General advantages of modern hives***

- Easy to manage
- Eases inspection
- Helps in pest control
- Honey harvesting/quality-makes it possible to harvest only ripe honey
- It is gender sensitive-easily workable by women and youth

## Sustainable Agricultural Livelihood Restoration, Rehabilitation and Resilience in Kenya Training Manual

- It produces on average higher yields of honey.

### *Disadvantages of modern hives*

- High cost of hives compared to log hives
- Hives not readily available in many areas
- Low occupation rates
- Requires higher management skills.

Beekeeping accessories include:



Langstroth Catcher box



KTBH Catcher Box



Smoker



Hive tool





Ministry of Agriculture and Livestock Development  
State Department for Crop Development  
P.O. Box 30028, Nairobi



Emergency Locust Response Program  
P.O. Box 30028,  
Nairobi



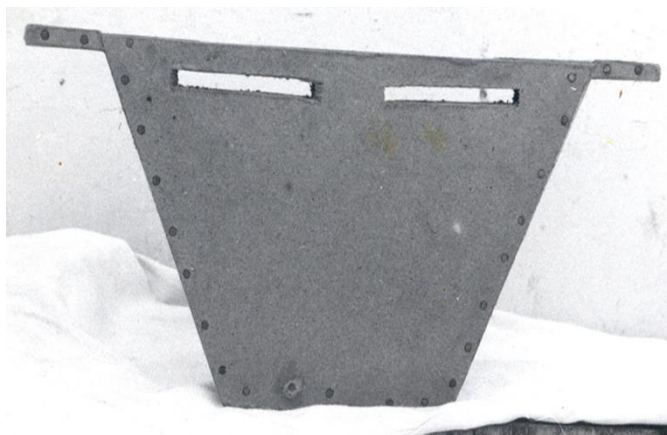
Kenya Agricultural & Livestock Research Organisation  
P.O. Box 57811-00200,  
Nairobi



The World Bank  
P.O. Box 30577-00100  
Nairobi

## **Sustainable Agricultural Livelihood Restoration, Rehabilitation and Resilience in Kenya Training Manual**

---



Feeder box



Protective kit  
(courtesy of NBI)



Bee brush