

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

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### **3.1. MODULE 1**

#### **BEEKEEPING (APICULTURE)**

Beekeeping or apiculture is the art and science of keeping and managing the honeybee for the economic benefit of humans. The Honeybee (*Apis mellifera*) is a social bee that lives in large colonies of up to 100,000 bees. Beekeeping has been identified as a viable agricultural enterprise that could alleviate poverty and sustain rural employment in the ASALs. Beekeeping is widely considered one of the poverty-alleviation strategies both by the Kenyan Government and other players supporting rural development in Kenya. Unlike other agricultural practices, beekeeping can be undertaken with minimal infrastructure, little capital, and easy-to-learn skills hence providing an excellent opportunity for diversifying agricultural production. It is estimated that Kenya produces between 15,000 and 25,000 tons of honey as well as 1000 and 5,000 tons of beeswax annually. This is a relatively low amount considering the estimated potential of 100,000 and 10,000 MT, honey and beeswax respectively. Beekeepers are dependent on the use of low productive traditional hives which results in poor- quality honey. Traditionally bees were kept in baskets, pots, guards, barks, and logs. Modern beekeeping was introduced in the 1970s to improve hive productivity. The introduced modern hives included: Kenya Top Bar Hive (KTBH), Langstroth hive and other modified Top bar hives. Beekeeping has many benefits which include; -Source of food, source of Income from hive products, i.e., Sale of honey, beeswax, royal jelly, pollen and propolis, employment, pollination services-the honeybee is a good pollinator, medicine-hive products are good Apitherapy products, and conservation of biodiversity among others. Despite its potential benefits, beekeeping faces a lot of challenges including environmental degradation (forest cultivation, fires, charcoal burning etc.), low adoption of improved technologies, Bee-phobia, and increased use of agricultural chemicals among others.

#### **List of sub-Modules**

- Sub-Module 1: Apiary citing and establishment
- Sub-Module 2: Beekeeping equipment and accessories
- Sub-Module 3: Colony and pest/predator management
- Sub-module 4: Bee behaviour
- Sub-Module 5: Bee forage/Bee plants
- Sub-Module 6: Hive products
- Sub-Module 7: Honey harvesting and processing
- Sub-Module 8: Beekeeping cost benefit analysis
- Sub-Module 9: Value addition, packaging and market presentation.