To prevent predators from crawling up the stands, the house is fitted with containers with oil or any other repellents. Grease can also be applied at the base on the posts holding the structure of the house. Putting the stingless bee hives in an apiary helps to conserve the colonies during harvesting as compared with colonies in the wild. The hives inside the meliponiary are organized and can be managed easily which results in high-quality honey.

## **Apiary management**

Beekeepers should keenly manage their apiaries to ensure stingless bees receive maximum comfort for enhanced productivity. The following actions can be taken to achieve this:

- 1. Practice good beekeeping practices across various production systems
- 2. Scouting should be done regularly. Scouting helps in detecting any challenges that may come up and thus measures are immediately taken to thwart any serious challenge
- 3. Always keep apiaries free from contaminants and pollutants that may affect the bees and honey quality
- 4. Monitor bee population in hives to ensure you split colonies before they swarm
- 5. Feed/water supplementation: stingless bees are more prone to drought conditions because their flight distance shorter than for honey bees. Hence they may need more of the supplementation. For water, ensure regular changing of the clean water, and provide floaters to prevent drowning.
- 6. Keep flowering plants, including annuals within 300-500 distance from the apiary to

provide bee forage. A local diverse flora is sufficient.

# Tools and equipment for apiary management The common tools and equipment required for effective apiary management are:

- 1. Panga and Jembe: these are useful in clearing and opening up the apiary sites.
- 2. Hive tool: it is used to open up the hives for inspections
- 3. Ladder: this is used to make it easier to reach high mounted/ sited hives. Use locally available materials to construct a strong ladder







# STINGLESS BEE APIARY

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### Introduction

A stingless bee apiary (also called a meliponary), is a managed location where stingless bee hives and colonies are kept and maintained for stingless beekeeping. An apiary can be in the form of:

- 1. A tree with multiple stingless bee hives
- 2. A tree with a single stingless bee hive
- 3. In a house, hung on rafters or walls
- 4. Housing structures specifically for the stingless bees



Moveable meliponary Photo: Nelly Ndung'u and Beatrice Nganso



Simple stingless bee apiary (Meliponary)
Source: Nelly Ndung'u and Beatrice Nganso

Advantages of a stingless bee apiary:

- 1. Provides formal places for keeping stingless bee hives
- 2. Offers protection to stingless bees e.g. against predators
- 3. Protects from harsh weather conditions such as rain and sun.
- 4. Helps beekeepers to consolidate their stingless beekeeping practices

## **Apiary Setup**

Stingless bee apiaries can be set up in various locations, including gardens, farms, and conservation areas. They typically consist of specially designed hives or nests for the stingless bees. These hives are often made from natural materials such as wood, clay, or resin, and they can vary in size and shape depending on the species of stingless bee and the beekeepers' preferences.

There are several factors to consider while selecting the site for constructing a stingless bee Apiary/ house;

- 1. Forage plants for the bees should be within a radius of 300- 500 m, around the stingless bee Apiary
- 2. Availability of water source especially during the long dry seasons-water can be provided in pans within the radius
- 3. The Apiary should be accessible to the farmer
- 4. The Apiary should have free air circulation
- 5. The site should be cleared of weeds or bushes to prevent predators which attack stingless bees