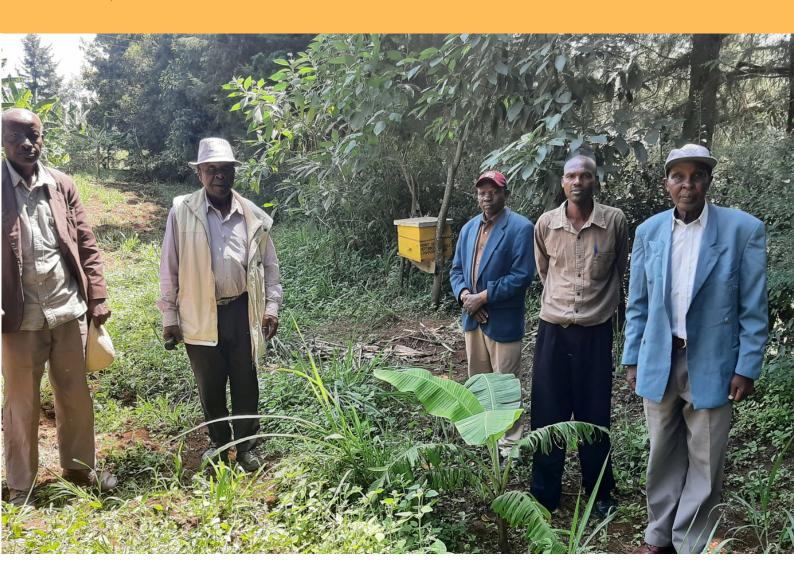
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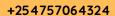
A publication of Tunza Nyuki Beekeeping Hub



How to Keep Beehive Records

Honey Harvesting and Processing

Saving Chepalungu Forest using Beekeeping



CHAIRMAN'S Corner

Nurturing Nature, Empowering Communities



Dear Tunza Nyuki Family,

I am thrilled to speak with you through our very own magazine. As the Chairman of Tunza Nyuki, it warms my heart to see our community of beekeepers growing and thriving.

Our journey in beekeeping is not just about honey; it's about creating a better life for ourselves and our environment. I want to thank each one of you for being a part of this mission. Together, we are making a positive impact on our communities and the world around us.

In these pages, you will find stories that matter to us, simple ways to keep our bees happy and healthy, and valuable tips on making our beekeeping practices even better.

Remember, beekeeping is not just a job; it's a way of life. It connects us to nature, provides for our families, and helps our environment flourish. So, let's learn, share, and grow together as one big Tunza Nyuki family.

Thank you for your dedication and hard work. The buzz of our bees is a melody of success, and each one of you plays a vital role in this sweet symphony.

Wishing you all a thriving and joyful beekeeping journey!

Warm regards,

Brian Kipkirui Ngetich

HOW TO KEEP HIVE RECORDS

The Analog Beekeeping Logbook

Beekeeping is a rewarding and fascinating hobby and a source of income, but it comes with its own set of challenges and responsibilities. One key aspect of successful beekeeping is diligent record-keeping, especially when it comes to hive inspections and honey production. Keeping detailed records can be your secret weapon in maintaining healthy and productive hives.

1. Hive Records

Hive Naming:

Provide each hive with a distinctive name, creating a personal connection with your colonies. Whether you choose names based on themes, locations, or unique features, having specific identifiers makes it easier to track and discuss individual hives in your records.

Date Acquired:

Document the date you acquired each hive. This foundational detail allows you to establish a timeline of the hive's history, making it easier to correlate events and patterns over time.

Date Colonized

Record when the hive was colonized. This detail is important as it allows you to understand the age of the colony

2. Inspection Records:

a. Hive Strength and Productivity:

Regularly assess and record the strength of each hive. Document the number of frames of brood, honey, and pollen, as well as the overall population. Tracking hive productivity helps identify colonies that may need additional attention or intervention.

b. Disease and Pest History:

Record any instances of diseases or pest infestations for each hive. This historical data is invaluable in implementing proactive measures and identifying trends related to hive health.

c. Behavioral Observations:

Document specific behavioral observations for each hive, such as temperament, foraging patterns, and response to environmental changes. Understanding these nuances aids in tailoring management practices to the unique characteristics of each colony.

3. Honey Records

a. Frame Weight Measurement:

Begin by recording the weight of honey frames during harvesting. Use a scale to measure the weight of individual frames laden with honey. This information helps gauge the honey storage capacity within the hive and identifies frames that are ready for extraction.

b. Bucket Weight Calculation:

As you extract honey from frames, meticulously record the weight of the honey-filled bucket after extraction. This practice allows you to determine the precise amount of honey harvested from each hive.

Importance of Record Keeping

Improve health

Your bees can't talk, but their hive can tell you a lot. By writing down what you see - from the number of bees to any odd behavior – you're creating a health diary for your hives. This helps catch problems early, like a bee doctor's appointment!

Improve honey yield

Record keeping is your treasure map for honey. Knowing when your bees started gathering nectar and when they sealed honey chambers guides you to the golden harvest time. No more guessing just sweet success!

Boosts Beekeeper <u>Memory</u>

Imagine having many hives, each with its unique story. It's easy to forget who's the busiest honey maker or who needs a little extra care. Records act like memory boosters, helping you recall each hive's story.



TUNZA NYUKI'S HIVE RECORDS TEMPLATE

How to Keep Hive Records Easily								
Tunza Nyuki Individual Hive Record Card								
Hive Name/Number HONEY HARVEST RECORDS								
Date Installed				Date		Total Frame		Total Bucket Weight
Date Colonized						Weight		after Extraction
PEST TRACKER								
Date	Pest Acti		ion					
INSPECTION RECORDS								
Date	State of Brood		Temper			Pests		Remarks
	Egg Larva Capped Brood		Calm Aggressive		Ants Wax Moths Hive Bettles			
	Egg		Calm		Ants			
	Larva Capped Brood		Aggressive		Wax Moths Hive Bettles			
	Egg Larva Capped Brood		Calm Aggressive			Ants Wax Moths Hive Bettles		
	Egg Larva Capped Brood		Calm Aggressive			Ants Wax Moths Hive Bettles		
	Egg Larva Capped Brood		Calm Aggressive			Ants Wax Moths Hive Bettles		

BEEKEEPING and Crop Pollination

Bees = Pollingtion



Have you ever wondered how bees can help your crops grow better? Well, let's talk about the amazing relationship between beekeeping and crop pollination. It's like a friendly handshake between bees and plants that helps us all have more and better food on our tables.

What is Pollination, Anyway

When bees move around collecting nectar and pollen from flowers, they inadvertently transfer pollen between flowers. This pollen transfer is like a natural matchmaker, enabling plants to make seeds and fruits. Many crops, such as fruits, vegetables, and nuts, rely on this process to reproduce.

The Connection

Beekeepers provide a helping hand to crops by maintaining beehives near fields. Bees from these hives visit flowers in search of food, unintentionally transferring pollen and aiding in the pollination process. The more bees there are, the better the chances of successful pollination, leading to healthier crops. Different types of bees, not just honeybees, contribute to crop pollination. Wild bees and other pollinators play important roles in diverse ecosystems.

Having a mix of bee species helps ensure a broader range of crops receive the pollination they need.

Benefits for Smallholder Farmers

Farmers who practice or support beekeeping benefit from improved crop yields. Crops that receive proper pollination produce more and betterquality fruits and seeds. This leads to healthier plants and a more productive harvest, contributing to both the quality and quantity of the crops.

Challenges Faced by Bees

Despite their essential role, bees face challenges like habitat loss, pesticide exposure, and diseases. Beekeepers and farmers need to work together to create environments that support bee health, ensuring they can continue their important work in pollination.

Sustainable Agriculture and Beekeeping

Promoting sustainable farming practices and responsible beekeeping helps maintain a healthy balance. This includes minimizing the use of harmful pesticides, creating bee-friendly habitats, and supporting efforts to protect and preserve bee populations

Other Pollinators in Nature

Butterflies:

Graceful and vibrant, butterflies inadvertently aid pollination as they seek nectar from flowers.

Bumblebees:

Robust and efficient, bumblebees vibrate flowers, releasing pollen and supporting plant reproduction.

Hummingbirds:

These tiny avian pollinators, attracted to colorful blooms, facilitate pollination with their long beaks and tongues.

Beetles:

Sturdy beetles contribute to pollination, particularly in primitive plant species, as they feed on flowers.

Often overlooked, various fly species play a crucial role in pollinating a variety of flowers.

TUNZA NYUKI'S Beekeeping training program Empowering Beekeepers for Success



The Tunza Nyuki Beekeeping Training Program stands as a noteworthy initiative, aiming to equip beekeepers with essential skills for successful apiary management.

Training Modules

The program is structured into modules, each focusing on a specific aspect of beekeeping. Participants learn about hive maintenance. recognizing signs of hive health, and addressing common challenges faced by beekeepers. The modules are designed to be accessible and informative, catering to beekeepers varying experience levels.

Disease Prevention and Management

The program is structured into modules, each focusing on a specific aspect of beekeeping. Participants learn about hive maintenance, recognizing signs of hive health, and addressing common challenges faced by beekeepers. The modules are designed to be accessible and informative, catering to beekeepers of varying experience levels.

Program Goals

The main goal of the Tunza Nyuki Beekeeping Training Program is to provide beekeepers with practical knowledge and techniques for effective hive management. This includes hive inspection, disease prevention, and honey harvesting, ensuring beekeepers can nurture healthy and productive honeybee colonies.

Hands-On Learning

One notable feature of the Tunza Nyuki program is its emphasis on hands-on learning. Beekeepers actively engage in practical sessions, gaining real-time experience in hive handling and management techniques. This hands-on approach enhances their confidence and competence in applying learned concepts to their own apiaries.

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Sustainable Practices

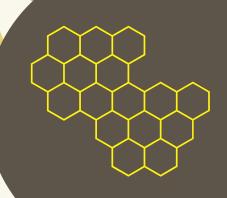
One notable feature of the Tunza

Nyuki program is its emphasis on

hands-on learning. Beekeepers

Positive Outcomes

Beekeepers who have participated in the Tunza Nyuki program report positive outcomes, including increased honey yields, improved hive management practices, and a greater sense of confidence in handling bee colonies. These outcomes contribute to the economic sustainability of beekeeping ventures and the overall growth of the honeybee industry.



Step-by-Step: Harvesting and Processing Honey Harvesting and Processing Honey from a Langstroth Hive

Processing honey is a straightforward task that turns honey from beehives into the delicious jars we enjoy. In this guide, we'll walk through the basic steps to process honey, making it ready for you to savor.

1.Honey Comb Removal

a. Wear Protective Gear:

Wear protective gear like a beekeeper suit and gloves to stay safe from bee stings.

b. Use a Smoker:

Before harvesting, use a smoker to calm the bees. This makes it easier to gather the honey without bothering them.

c. Gently Remove the Combs:

Carefully take out the honey-filled combs from the beehive, making sure not to harm the bees.

2. Uncapping the Honey

Use a tool called a honey uncapper to remove the wax covering the honey

Save the wax removed for other uses, like making candles or beauty products.

3. Extracting the Honey

Place the uncapped combs into a honey extractor, a machine that spins the combs to release the honey.

4. Collecting, Filtering and storing Honey

Let the honey flow out of the extractor into a container through a fine mesh filter to remove any remaining wax or impurities from the honey.

Pour the filtered honey into clean, dry containers and seal the containers tightly.

Store the honey in a cool, dry place away from direct sunlight.

By following these basic steps, you can turn the honey collected from beehives into the sweet, golden jars ready to be enjoyed!



Beat Flu, Cold and COVID with Honey

Dawa is a powerful remedy that can help you feel better when the flu or cold comes knocking. This is a trusted solution to beat the flu and cold, using simple ingredients to get you back on your feet.

The Power of Dawa

Dawa is a natural way to help your body fight off the flu and cold. It's like a superhero in a cup, ready to tackle those pesky germs. Additionally, Dawa brings comfort when you're feeling under the weather. It warms you up and makes you feel cozy, helping you get through the sniffles and sneezes.

<u>Ingredients in Dawa:</u>

- 1. Honey
- 2.Lemon
- 3. Ginger

Making Dawa

Making Dawa is easy. Just mix warm water, lemon juice, honey, and a bit of grated ginger in a mug. Stir it well, and your soothing Dawa is ready!

Taking Dawa

Sip your Dawa slowly to let its goodness work its magic. The warm liquid and natural ingredients will make you feel cozy and on your way to recovery.



Why Dawa Works:

Dawa helps keep you hydrated, which is crucial when you're not feeling well. Hydration supports your body in fighting off the flu and cold.

The natural ingredients in Dawa, like lemon, honey, and ginger, have properties that can help ease symptoms and speed up your recovery.







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STINGLESS BEEKEEPING-Sweet and Simple

Stingless beekeeping is a clever way to make honey that's good for you. In this article, we'll talk about how it's a sustainable approach to honey production. Plus, the honey from stingless bees is more like medicine, and these bees are not mean, so more people can join in the beekeeping fun.

Why Stingless Beekeeping is Cool

1. No Sting, No Problem

Stingless bees are friendly - they don't sting! This makes them easier to Why More People Should Try Stingless handle, and more people can try beekeeping without worrying about getting stung.

2. Easy Beekeeping:

Stingless bees are not bossy. They're gentle and don't mind if you check on them. This makes beekeeping less of a hassle and more enjoyable for everyone.

Sustainability in Stingless Beekeeping

1 Easygoing Bees, Happy Environment: Stingless bees don't cause trouble. They don't disturb the environment or bother other animals. This makes stingless beekeeping good for the planet.

2. No Need to Move a Lot:

Stingless bees stay in one place, so they don't have to fly around looking for new homes. This helps keep things calm and stable.

Beekeeping:

1. Friendlier for Everyone:

Since stingless bees are not mean, more people can join in beekeeping fun. It's like having little buddies that make honey without causing any fuss.

2. Anyone Can Beekeep:

Stingless beekeeping is not tricky. Anyone can do it, even if they haven't tried beekeeping before. It's a cool hobby that doesn't need a lot of fuss.

Stingless beekeeping is a sweet and simple way to make honey. The bees are easy to handle, and the honey they make has extra good things in it. Plus, stingless beekeeping is friendly to the environment, making it a smart choice for anyone who wants to try beekeeping without any fuss. So, grab your beekeeping gear and get ready to enjoy the buzz of stingless

beekeeping!



TRACEABILITY-Know Where Your Honey Comes From

Knowing where your honey comes from is important for both consumers and beekeepers. In this article, we'll explore the concept of traceability in honey, which helps us understand the journey of honey from hive to table.

What is Traceability?

Traceability in honey means being able to track and follow the journey of honey from the hive where bees make it to the jar you buy. It's like having a clear map that shows the path honey takes, ensuring transparency and accountability in the honey industry.

Importance of Traceability

a) Quality Assurance

Traceability assures the quality of honey. By knowing where it comes from, you can be confident that your honey is produced under proper conditions, maintaining its natural goodness.

b) Safety and Authenticity

It ensures that the honey you enjoy is safe to eat and authentic. Traceability helps identify any potential issues, like contamination, and guarantees that your honey is the real deal.

How Traceability Works

a) Beekeepers Keep Records:

Beekeepers keep records of their beekeeping practices, such as hive inspections and honey extraction. These records create a clear picture of how the honey is produced. Processors, and distributors also work together to keep track of honey. They share information to ensure that every step, from the hive to the store, is known and recorded.

b) Batches and Labels:

Honey is often collected in batches, and each batch gets a label. This label provides information about when and where the honey was harvested, making it easy to trace.

Benefits of Traceability:

a) Consumer Confidence: Knowing where your honey comes from builds trust. Consumers can feel confident about the quality and authenticity of the honey they purchase.

b) Supporting Beekeepers:

Traceability helps support beekeepers by giving credit to their hard work. When consumers appreciate the origin of honey, it encourages responsible beekeeping practices.

Importance of a SMOKER

Calm Bees and Avoid Forest Fires

The bee smoker is a fundamental tool in beekeeping, playing a crucial role in managing honeybee colonies. This device, designed to produce smoke, has significant benefits for the beekeepers, the bees, and the environment.

The Bee Smoker's Purpose:

The primary purpose of the bee smoker is to calm honeybees during hive inspections. When beekeepers open a hive, bees may become agitated and defensive. The gentle smoke produced by the smoker masks the bees' alarm pheromones, helping to keep them calm and reducing the likelihood of stings.

How the Bee Smoker Works:

The bee smoker generates smoke by burning fuel, commonly dried plant material or wood pellets. When the smoke is directed into the hive, it disrupts the communication among bees and temporarily masks their defensive signals. This provides beekeepers with a safer and more manageable environment for hive examinations and manipulations.

Scientific Significance of Smoke:

The use of smoke in beekeeping is based on scientific principles related to honeybee behavior. The smoke interferes with the bees' ability to communicate through pheromones, disrupting their organized response to potential threats. This temporary confusion allows beekeepers to work with the hive more effectively.

The bee smoker has a calming effect on honeybees, preventing them from becoming overly defensive during hive inspections. When bees are calm, they are less likely to sting, creating a safer environment for both beekeepers and the bees themselves.

Benefits for Beekeepers:

Beekeepers benefit from the use of a smoker as it enhances their ability to manage hives with minimal disturbance. This, in turn, promotes better hive health and productivity. The smoker's simple yet effective mechanism aligns with best practices in beekeeping, contributing to the overall success of apiary management.



The Dangers of Pesticides: A Threat to Bee and Human

Pesticides can be harmful to both bees and people and thus it is important to avoid them by finding alternatives or using them carefully.

Pesticides and Bees:

Harming Bee Health:

Pesticides can make bees sick. When bees come into contact with these chemicals, it can affect their ability to collect food and even cause them to

Disturbing Bee Behavior:

Pesticides can change how bees behave. This might make it harder for them to find flowers and do their important job of pollinating plants.

Pesticides and Human Health: Potential Risks:

People can also be affected by pesticides. Being around these chemicals might cause health problems, especially for those who work with them regularly.

Water Contamination:

Pesticides can get into water sources, like rivers and lakes. This can affect the water we use and harm both people and animals that rely on it.

The Connection Between Bees and People:

People depend on bees for food. If pesticides harm bees, it can impact the plants they pollinate, leading to less food for us. When possible, using alternatives to pesticides is a good idea. This can help protect both bees and people from unnecessary harm. Following guidelines for pesticide use is important. This includes using the right amount and applying them in ways that minimize harm to the environment.

Saving CHEPALUNGU FOREST Using Beekeeping

Beekeepers are More Aware of the Environment Around Them



In 2020 during the COVID-19 Pandemic, Tunza Nyuki embarked on a campaign to save Chepalungu Forest in Bomet County from deforestation. Currently, beekeeping is turning out to be a helpful way to save the forest because beekeepers understand the environment better. In this article, we'll talk about how beekeeping is making a positive change by encouraging people to take care of the forest, stopping them from cutting down trees for timber and charcoal.

Beekeepers and Environmental Awareness

Close to Nature:

Beekeepers spend a lot of time in nature, looking after their bee hives. This makes them more aware of the environment around them.

Tree-Friendly Approach:

Beekeepers understand that trees are important for bees to make honey. So, they are less likely to cut down trees for timber or charcoal.

The Connection Between Beekeeping and Forest Protection:

Healthy Habitats for Bees:

Beekeepers know that healthy forests mean healthy bees. They support keeping the forest safe and sound because it provides a good home for their bees.

No Need for Harmful Practices:

Beekeepers use sustainable practices that don't harm the environment. This includes not cutting down trees, so the forest stays strong and thriving.

Beekeeping as an Alternative:

Income Without Cutting Trees:

Beekeeping allows people to make money without harming the forest. They can sell honey and other bee products instead of cutting down trees for timber or charcoal.

Encouraging Others to Join:

When people see beekeepers doing well without harming the forest, they might want to try beekeeping too. This creates a positive cycle of protecting the environment.

Community Awareness and Involvement: Educating Others:

Beekeepers often talk to their communities about the importance of saving the forest. This helps people understand that they can make a living without hurting the environment.

Beekeeping Groups:

Community members living next to the forest have formed beekeeping groups through the support of Tunza Nyuki. Group members work together to protect the forest. This creates a sense of unity in caring for their natural surroundings.

Beekeeping is playing a key role in saving Chepalungu Forest. By promoting environmental awareness among beekeepers, it is encouraging a positive change in the way people think about and treat the forest. Beekeepers show that it's possible to make a living without cutting down trees, making Chepalungu Forest and its surroundings a better place for everyone.

Uses of Bee Products

Honey

- Sweetener
- Energy boost
- Wound healing

BeesWax

- Candles
- Cosmetics
- Wood polish

Propolis

- Antibacterial
- Skin Care

Royal Jelly

Nutritional Supplement

Pollen

- Nutritional Supplement
- Allergy Relief

Bee Venom

- Antiflammation
- Skin Care
- Immune booster



Don't Kill BEES Lets Save Them



Bees are important little workers in our world, helping plants grow and making sure we have plenty of food to eat. In this article, we'll talk about how bees are crucial for our environment and why it's essential to protect them instead of using things that can harm them.

Why Bees Matter:

Pollination:

Bees help plants make fruits and seeds by carrying pollen from one flower to another. This makes sure we have lots of different fruits and vegetables to enjoy.

Food for Animals:

Many animals, like birds and other insects, depend on the fruits and seeds that bees help produce. Bees play a part in keeping the whole ecosystem balanced and healthy.

The Problem with Insecticides:

Harmful Chemicals:

Some chemicals used in insecticides can hurt bees. When bees go to flowers that have these chemicals, it can make them sick or even cause them to die.

Not Just Bees:

Insecticides don't just affect bees; they can harm other insects, animals, and even humans. Using these chemicals can disrupt the natural balance of our environment.



Safe Bee Removal and Relocation:

Finding a Better Place:

Sometimes, bees build their hives in places where people don't want them, like in houses. Instead of using harmful chemicals to remove them, we can relocate the bees to a safer place.

Calling the Experts:

Bee removal experts know how to take bees away without hurting them. They use special methods to move the bees to a new home where they can keep doing their important job.

What We Can Do to Help:

Plant Bee-Friendly Flowers:

Planting flowers that bees like can give them a good place to find food. Bees love bright and colorful flowers like calliandra, sunflowers, and lavender.

Avoid Harmful Chemicals:

When we use insecticides or pesticides in our gardens, it's important to choose ones that don't hurt bees. This helps keep our gardens healthy and safe for the bees.

Bees are like nature's little helpers, making sure our world is full of tasty and healthy foods. Instead of using things that can hurt them, let's find ways to protect and care for bees. Whether it's relocating them safely or creating gardens that they love, we can all do our part to make sure bees can keep doing their important job for a long, long time.

Beekeeping for **Sustainable Livelihood**

- 1. Bee products are valuable
- 2. Bees improve farm yields through pollination
- 3. Beekeeping is not capital intensive
- 4. Beekeeping can be practiced by anyone regardless of age and gender.
- 5. During humanitarian and natural disasters, beekeeping has proven to be resilient



10 Ways Beekeeping can End Gender Based **Violence in Bomet** County

- 1. Economic Cauc empowerment of women
- 2. Skill development
- 3. Entrepreneurship opportunities
- 4. Community involvement
- 5. Environmental stewardship
- 6. Knowledge sharing
- 7. Resource control
- 8. Strengthening social bonds
- 9. Promoting Sustainable Agriculture
- 10. Education and awareness



TUNZA NYUKI Editorial Team

The Team that Makes Communication Possible



Cyrine Kipkoech

Editor-in-Chief

Cyrine brings a wealth of experience to our team as an accomplished beekeeper. His hands-on knowledge of beekeeping practices has significantly contributed to the informative content in this publication.

Cyrine is hands-on, ensuring the day-to-day production aligns seamlessly with the magazine's policies. With a passion for storytelling and a dedication to quality, Cyrine is a driving force behind the compelling narratives that grace our pages.

ABOUT Tunza Nyuki Beekeeping Hub

Mission, Vision, Objectives, Membership, Core Activities, Future Plans, and Organizational Structure

What is Tunza Nyuki **Beekeeping Hub**

Tunza Nyuki is swahili word that means "Take Care of the Bees." The Tunza Nyuki Beekeeping Hub is an organization that seeks to help people build better lives and take care of the environment through beekeeping.



Vision

Empowering beekeepers for sustainable livelihoods and environmental stewardship, contributing to the development of climate-resilient landscapes.

Core Activities

- 1. Providing training and workshops on beekeeping best practices.
- 2. Facilitating market linkages for beekeepers.
- 3. Promoting environmental conservation initiatives, including forest restoration projects.
- 4. Empowering women and youth in beekeeping entrepreneurship.
- 5. Developing and implementing technology solutions for beekeeping and environmental monitoring.

Mission

To empower beekeepers with the knowledge, resources, and support needed to thrive economically while promoting environmental conservation through sustainable beekeeping practices.



- 1. Provide training and capacitybuilding for beekeepers.
- 2. Facilitate access to markets and resources for beekeeping.
- 3. Foster environmental awareness and conservation efforts, including reforestation and habitat restoration.
- 4. Empower women and youth in beekeeping entrepreneurship.
- 5. Promote the integration of technology for enhanced productivity, traceability, and environmental monitoring in the beekeeping value chain.



Organizational Structure

The organization operates in a decentralized manner to remain fast, agile, and adaptable. The board of directors rotates every two years to ensure fresh perspectives and effective governance. The management team consists of dedicated individuals with expertise in beekeeping, environmental conservation, marketing, and technology.

Membership

Tunza Nyuki Beekeeping Hub welcomes members who are passionate beekeepers dedicated to sustainable practices. Membership requires an annual fee of Ksh. 1000. Members come from various counties including Bomet, Nyamira, Kisii, Kericho, and Narok.

Future Plans

Tunza Nyuki Beekeeping Hub aims to further integrate sustainable practices into beekeeping activities to mitigate environmental impact and promote biodiversity conservation.