

Beekeeping Around Bwindi

Scaling-up production of honey and other bee products through training in beekeeping best practices and the introduction of low-cost transitional hives



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More information

For more information about this report or the project, visit:
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Contents

Introduction	4
Beekeeping around Bwindi	4
Beekeeping and best practices	5
What is beekeeping?	5
The benefits of beekeeping	6
Bee castes	6
Bee behaviour	8
Types of hives	8
Apiary management	10
Protective apparel and equipment	11
Bee pests	12
Bee pasture and forage	14
Seasonality	14
Honey harvesting	14
Recommendations and way forward	15
Conclusion	16

Introduction

Gorilla based tourism in Bwindi Impenetrable Forest National Park, southwest Uganda, generates critical revenue for conservation and has grown significantly over the past two decades. Despite this, research by the International Institute for Environment and Development (IIED) indicates that the local community has received limited benefits from tourism. As a result local economic development remains constrained and illegal use of the natural resources from within the national park continues.

As part of a three-year project, running from 2016 to 2019, IIED along with the Responsible Tourism Partnership (RTP), the Institute of Tropical Forest Conservation (ITFC), Bwindi Mgahinga Conservation Trust (BMCT) and the International Gorilla Conservation Programme (IGCP) has been developing strategies which enable the communities around Bwindi to derive greater benefit from gorilla based tourism. These strategies have focused on creating additional community-based products which can be sold to tourists. For example the [Bwindi Collection](#) was the result of training individuals to produce high quality handicrafts which appeal to international tourists.

This report details an initiative which sought to build the supply of Bwindi honey by educating local beekeepers and introducing low cost transitional hives. It explains the background to honey production around Bwindi National Park before covering in depth the content taught to the beekeepers by Brian Mugisha, the owner of Golden Bees Ltd. Finally, it discusses progress since the training sessions and explores possible ways forward for the beekeeping industry around Bwindi.



Figure 1: A stand outside a tourist office in Ruhija selling Bwindi honey produced by local keepers.

Beekeeping around Bwindi

Beekeeping around Bwindi is largely a subsistence activity. The surrounding land is covered by dense impenetrable forest (Bwindi National Park) and a few forest plantations (eucalyptus and pine) which produce blends of honey with natural forest flavours. Local beekeeping is dominated by the use of traditional hives, predominantly basket hives, and the keepers use rudimentary skills which have been passed down through the generations.

Until now interventions with beekeeping in the region have been disjointed and had little impact. This initiative sought to invigorate local beekeeping through a private sector led approach, deemed suitable due to its scalability and sustainability. It aimed to train 50 smallholder beekeepers in apiary best practices and to introduce low cost transitional hives to the communities.

The training for the initiative was provided by Golden Bees Ltd, an organisation whose mission is to transform the beekeeping industry through rural smallholder beekeepers across Uganda and East

Africa. Beekeeping groups around the national park selected 57 participants for training (see Table 1). This was delivered through two identically structured three-day workshops, one held for communities south of the park and one for communities north of the park. Training was delivered through a combination of classroom sessions and practicals which included opening hives, building hives and creating a mini bee herbarium. The content was the same in both workshops except where regional differences, for example in types of vegetation, dictated that different specifics should be taught.

The initiative was intended not only to stimulate the production of quality honey and other bee products but also to lay the foundations for long-term business relationships with the smallholders to create a sustainable honey value chain.

Table 1: Attendance for the two training workshops delivered by Golden Bees Ltd in 2017

Area	Date	Men	Women	Total
Rubuguri, Nkuringo, Rushaga	26–28 April	23	8	31
Ruhija, Mpungu	3-5 May	22	4	26

Beekeeping and best practices

This section details the knowledge and best practices shared by Golden Bees Ltd with the local beekeepers. Although it contains significant detail about beekeeping, specifically in the context of Bwindi, it is not intended to be a stand-alone guide for beekeepers but a summary of what was taught to the communities. For training to be well-informed and effective it must be provided by an experienced beekeeper trainer.

What is beekeeping?

Beekeeping, or apiculture, is the practice of maintaining bee colonies in order to harvest honey and other products such as beeswax, propolis, bee pollen and royal jelly. Humans have collected honey from wild bees for over 10,000 years but the art of beekeeping emerged in Ancient Egypt. Long cylindrical hives were moulded out of clay with entrance holes at one end and a cover at the other. This concept was improved by the Greeks who invented the top bar hive, an oval shaped basin which enabled them to easily inspect the bees and harvest from them.

Beekeeping and hives continued to evolve during the intervening centuries but it is Reverend Lorenzo Langstroth (1810-1895) who is regarded as the father of modern beekeeping. His research on bee space led to the first ever frame hive with inbuilt bee space, an innovation which took beekeeping from subsistence practice to commercial.

Honey hunting

Honey hunting has been common practice in African beekeeping. The Batwa and other people in and around the vast forests, for example in the Congo and the communities at the periphery of Bwindi, still practice this tradition.

Bee terms

Beeswax = a natural wax produced by glands in worker bees. It is used to build honeycomb.

Propolis = otherwise known as bee glue, this resinous mixture is produced by bees mixing saliva with beeswax and botanical fluids such as sap. It is used to fill small gaps such as unwanted open spaces in the hive.

Bee pollen = a ball of flower pollen gathered by worker bees. It is the primary source of food for the hive and is stored in cells mixed with saliva and sealed with a drop of honey.

Royal jelly = a secretion from glands in the heads of worker bees. It is fed to all larvae but after three days only the queen larvae are fed royal jelly to trigger their development.

Bee space = the space left between combs in a hive which enables the bees to move around freely. Bees will not fill these designed spaces with propolis or comb.

Honey is harvested by subduing wild bee colonies with smoke and then breaking open the tree or rock where the colony is located to access the honey. Not only is this damaging for the bees and surrounding environment but it also results in lower quality honey due to the smoke and burning. Hence, the transitional hives and methods discussed in the workshops offer a far better method for beekeeping but without the costs of modern hives.

The benefits of beekeeping

During the workshops the benefits of beekeeping were discussed and categorised according to the end product derived (see Figure 2). Currently the main products of the beekeepers around Bwindi are honey, bees wax and propolis. Some bee products such as bee venom, royal jelly, propolis and bee pollen are thought to have remedial and medicinal benefits, based on traditional use, although scientific evidence to support their use in these ways is limited.

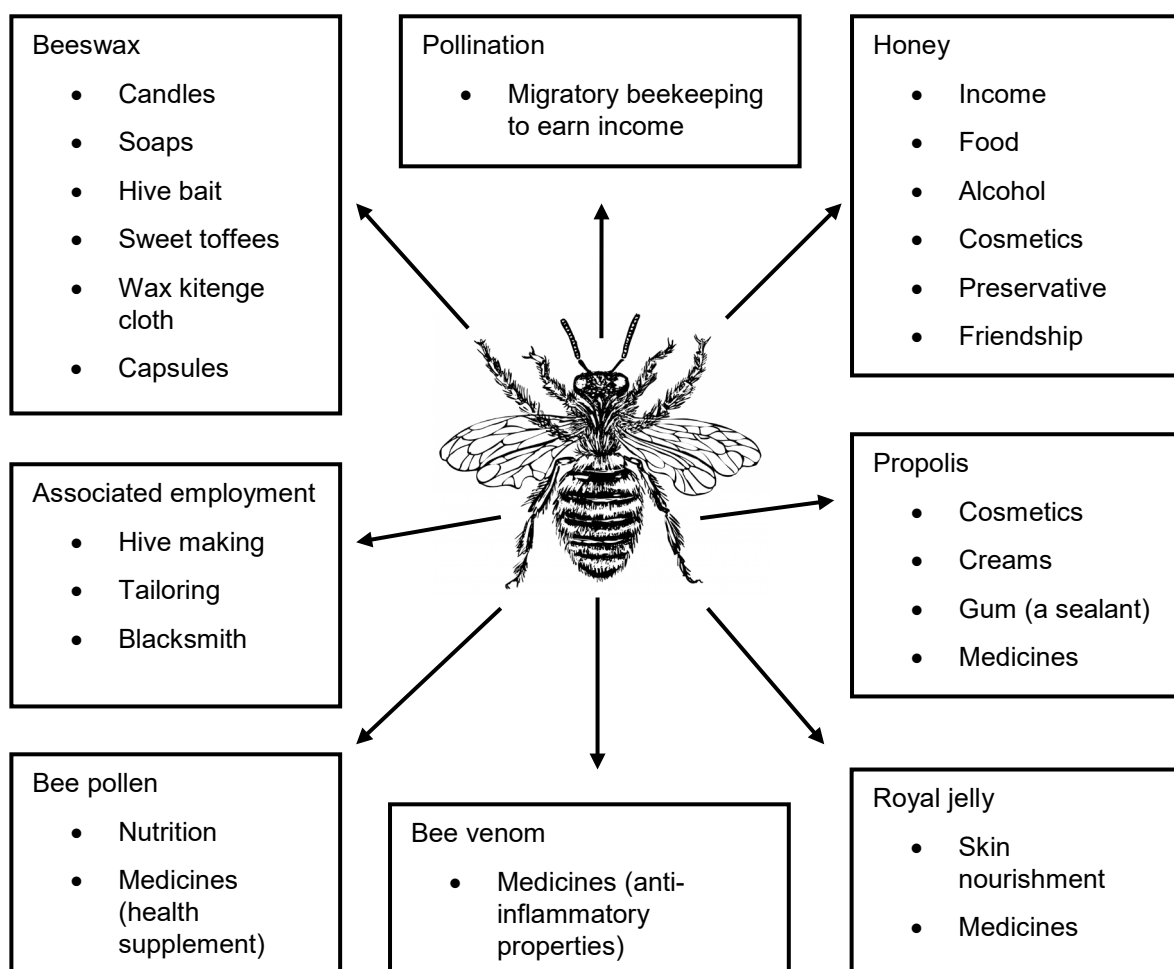


Figure 2: the benefits of beekeeping as discussed in the training workshops (medicinal benefits based on traditional use). Image adapted from Karen Arnold/PublicDomainPictures.net via Creative Commons (CC0 1.0).

Bee castes

Honey bees have three castes which denote the role of the bee in the colony: queen, worker and drone.

Queen (Ekikama Kazi)

The Queen bee has a long oval shaped abdomen with short wings. She produces and secretes a pheromone which keeps the colony together in harmony. The queen is the only female bee with developed reproductive organs in the hive so is the only bee to lay eggs, both fertilised and unfertilised

eggs. The unfertilised eggs develop into drones while the fertilised eggs develop into either workers or queens depending on how much royal jelly they are fed.

Queen bees live for three to five years. They possess a sting without barbs to fight other queens that may emerge. Each colony normally has a single queen who lays between 1,500 and 2,000 eggs a day to sustain the colony.

Worker (Enkozi)

Worker bees are female bees with undeveloped reproductive organs and can live for up to 42 days. Their name stems from their role in the bee hive as they conduct various tasks:

- Build combs by secreting wax
- Collect food (nectar and pollen grains) and water
- Feed the queen and young larvae
- Defend the colony with stings and their mandibles
- Regulate the temperature
- Scout for new homes
- Collect propolis to repair and disinfect the hive or burry heavy bodies which cannot be physically removed from the hive

A strong colony will have about 30,000-70,000 workers.

Drone (Empambi)

A drone's primary role is to mate with the queen. Drones form congregation areas for mating and between seven and ten drones mate with the queen. Mating is a suicidal act as it tears off the reproductive parts of the drones. A good colony will have about 300 drones.



Figure 3: Worker bees perform a number of tasks around the hive including building comb by secreting wax. Very little of the comb in this image is capped, or sealed off, demonstrating that the honeycomb is not ripe for harvesting. Image: [pixabay.com](https://www.pixabay.com) via Creative Commons (CC0).

Honey bee lifecycle

Table 2: the number of days required for the honey bee castes to reach different stages of their lifecycle

Caste	Egg	Larva	Pupa	Adult
Queen	3	3-8	8	16
Worker	3	3-9	9	21
Drone	3	3-9.5	10	24

Bee behaviour

Mating

A young unfertilized queen bee will carry out an orientation flight around the hive before flying swiftly and spreading a pheromone that attracts drones. A congregation of drones then chases the queen and mates with her during flight. Around seven to ten drones will mate with the queen. These drones then die after mating as their reproductive organs are torn off. A queen bee will mate only once during her life.

Swarming

Swarming is common behaviour amongst African bees. It occurs when a colony splits into two or more groups (multiple swarming) as the mother queen leaves the hive with almost half the colony to make room for the emerging queen.

Factors which contribute to swarming include:

- An old or infertile queen might threaten the sustainability of the colony
- Overcrowding of the colony leads to swarming as the bees attempt to decongest the hive

Solutions:

- Monitor the performance of the queen and observe the protruding queen cells which contain emerging queens. If the current queen is performing well then destroy the protruding queen cells, if not then remove the old queen and so the position can be filled by an emerging queen.
- Division of a crowded colony by introducing bees from a crowded hive to an empty hive. The hives should then be swapped to strengthen the new colony as bees which were outside the hive when the division was made will remember where the original hive was. This means that they will go back to the hive and support the emerging queen where the colony is weaker.

Absconding

Absconding is where bees completely migrate from a hive. African bees have a tendency to migrate regularly and a number of factors contribute to absconding:

- Poor harvesting practices and hive maintenance
- Pests and insects
- Disturbance from the surrounding environment for example cattle, heavy rains and children stoning hives
- Dry spells (bees leave in search of food and water)
- Human activities (such as deforestation and bush burning)

Solutions:

- Good beekeeping practices
- Good apiary maintenance
- Fence the apiary and be aware of the apiary's neighbours
- Select a good site near food and water
- Afforestation and conservation
- Adopt good agricultural practices (unlike bush burning)

Types of hives

During the workshops the beekeepers discussed three different types of hive: traditional hives, transitional hives and modern hives. They then considered the advantages and disadvantages of each (see Table 3).

Traditional hives

Traditional hives are the most common type of hive around Bwindi. For example the Bakiga people in Kigezi invented the Kigezi basket hive, a cylindrical form with one small end and one wide end for harvesting. Keepers who use traditional hives are usually either subsistence farmers or individuals who care for bees as a hobby.

Traditional hives are made from readily available materials such as bamboo, straw, papyrus, clay, logs, bark, baskets and pots. The designs for the hives are passed down from generation to generation. In comparison to honey hunting, traditional hives are much better for the environment, as no burning or damage occurs during harvesting, and result in a better quality of honey, as contamination is avoided.

Top bar hives (transitional hives)

Top bar hives can be viewed as transitional hives as they incorporate features from both traditional and modern hives. They are traditional as the honey combs have to be cut out to harvest the honey and cannot be replaced but they are modern in that the combs are moveable. Transitional hive designs include the Kenyan top bar hive (KTB), the Tanzanian top bar hive (TTB) and Golden Bees Ltd newly designed low cost transitional top bar hive using locally sourced materials. Each of the keepers at the workshops was taught how to make this hive design.

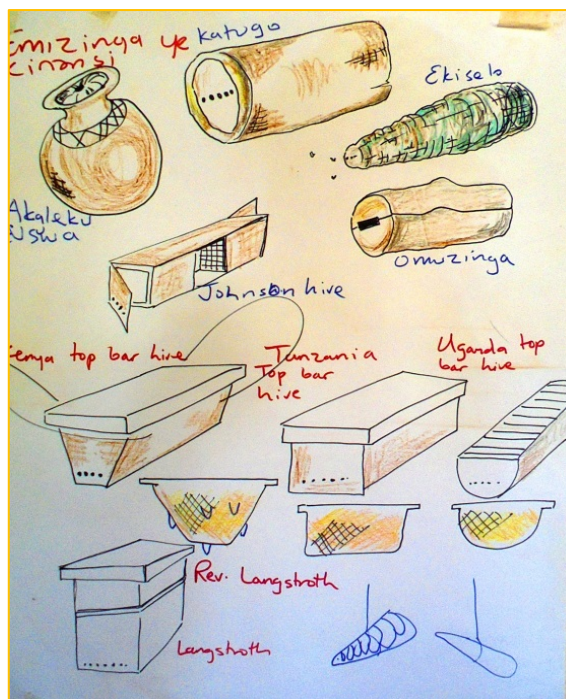


Figure 5: Diagram from the training classes showing the many types of hive discussed: traditional hives, transitional hives and modern hives.

Figure 4: Keepers at the workshop learning to make top bar hive designed by Golden Bees Ltd.



Modern hives

Modern beekeeping uses moveable combs through top bars and frames. These can be exchanged, replaced and manipulated to improve the yield from the bees. Modern hives are used for commercial beekeeping and the most common hive design is the Langstroth hive.

Harvesting from modern hives is done by a honey extractor which uses centrifugal force to empty the honey combs. The combs are then placed back into the hive for the bees to refill meaning that they don't need to build new combs. This is significant as it takes bees between 8kg and 10kg of honey to construct 1kg of comb.

Table 3: Comparing the three different types of hive discussed in the training courses.

Type of hive	Advantages	Disadvantages
Traditional	Easy to make	Not durable
	Cheap	Hard to control pests especially insects
	Colonisation rates are high compared to other hives	Cannot manipulate the hive or harvest without destroying the brood and bees
	More diverse products such as wax and propolis	Beekeepers practice based on assumptions and guess work
	Easy and less time consuming to manage	Have no standard dimensions so difficult to transfer parts between hives and to make estimates of honey production
Transitional	Increased honey harvest and wax	More expensive than a traditional hive
	Durable hive	Requires skill to manufacture the bee space
	Easy to destroy pests without destroying the brood	Have to cut out the combs to harvest honey creating more work for the bees
	Easy to inspect, manipulate and harvest	
	Can be colonised from a catcher box	
Modern	Takes less time to manage than modern hives	
	Increased honey quantity and can be harvested more than once a season	More expensive than both traditional and transitional hives
	Can colonise using a box containing a nucleus colony	Cannot harvest without an extractor
	Can use an escape trap for harvesting so obtain top quality non-smoky honey	Requires more time and skill to manage
	Easy for practising migratory beekeeping	May not be appropriate in all situations

Apiary management

An apiary is where bees are kept in orderly hives for easy management. Before setting up an apiary a beekeeper must identify a good site which means considering the following:

- The apiary should be fenced off or protected by a natural hedge such as Kie apple trees, calliandra or moon flower plants. These offer a natural barrier, shade and forage for the bees
- Proximity to forage such as a forested area, scrubs like acacia and commercial agriculture like sunflowers
- Proximity to a water source
- Trees to act as wind breakers and provide shade
- The distance between the apiary and public places such as schools, markets, major roads and hospitals. Operating standards state that it must be at least 70 meters away

- There should be no pests such as ant hills
- The nature of the terrain (often mountainous) means that it is better to place the hives on terraces so they are more stable and easier to work with

Apiary sitting

Apiary sitting, or installation, requires good stands made from strong poles to suspend the hives from or to place the hives on. There should be one and a half to three meters between each hive and hives should be placed in a well-planned layout to allow keepers to walk round the hives easily. The beekeeper must know the direction of the prevailing wind such that the entrance holes of the hive face opposite the direction of the wind.

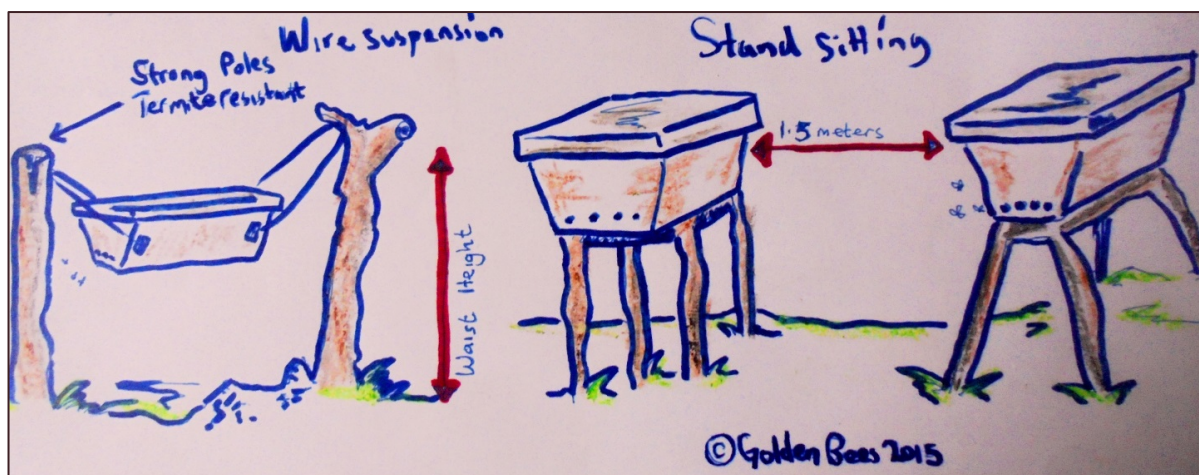


Figure 6: A suspended top bar hive hung from two strong poles and two sited Langstroth hives. Diagrams such as this were used a lot in the classroom sessions of the beekeeper training.

Hive colonisation

Beekeepers should endeavour to have at least 80% of their hives colonised as an empty hive is not productive. The keepers on the course discussed a number of colonisation methods.

1. Hive baiting – involves enticing or luring bees into a hive. Bees are attracted to a good hive by smell so a number of materials can be used to bait hives such as bees wax, propolis, lemon grass and cassava flour.
2. Swarm catching – a sisal sack can be used to catch a swarm, especially those on the tips of branches. Gently encircle the clumped swarm at the opening of the sack and then shake the branch such that the swarm falls into sack. The swarm can then be transferred to a hive.
3. Catcher box/Nuc box – these are small hives containing nucleus colonies on four or five bars/frames. They are sited and then when the colonised bees have transferred to the hive the empty frames and top bars can be moved back to the box to trap a new set of bees.
4. Colony multiplication – is the splitting of a strong colony to create two colonies. This is best done during the flowering season when the bees are in plenty and have enough to feed on. Once the colony is split and the queenless colony has been introduced to a new hive the hives need to be swapped to strengthen the queenless colony.
5. Queen rearing – is an advanced method which requires skill and a keeper knowledgeable about the honey bee lifecycle, queen rearing systems, grafting tools and other associated tools. This method was mentioned in the workshop discussions but emphasis was put on the first four colonisation methods.

Protective apparel and equipment

Good protection is essential when working with bees. Working without protection compromises the quality of the honey, may kill the bees and endangers the keeper's life and also the surrounding

communities. Many of the beekeepers around Bwindi had been harvesting at night with no clothing and other keepers had not even attempted to open their hives for a year.

The training programme included the inspection of a couple of hives using protective apparel and equipment to introduce the beekeepers to its use.

- Bee suit, gloves and gum boots – the trainees were taught how to dress properly in protective gear and how it should be kept after use
- Bee smoker – the trainees were taught how to light a smoker, the types of fuel required and how to use it
- Bee brush and hive tools – were used to remove the bees from the combs and to open and inspect the hive. The hive tool was also used to scrape propolis from the hive.
- Airtight bucket – was used to collect the combs that were cut from the hives. It is important that the bucket is airtight to prevent moisture getting into the honey. Honey is hygroscopic and so attracts moisture.



Figure 7: Keepers practising opening a hive using full protective apparel. Practical sessions such as this accompanied the classroom sessions on the beekeeper training course.

Bee pests

Bee pests vary from area to area. For instance birds are a major pest for the beekeepers of the Batwa tribe as they live adjacent to forest which is rich with birds. In contrast chimpanzees are pests for the beekeepers surrounding Kibale forest.

Pests are a major factor in Bwindi contributing to hive abscondment rates. The trainees assessed four major pest categories. Insects were thought to be the most common but human activities such as theft and vandalism were also an issue. These were categorised under animal pests. The trainees then devised solutions to counter each of the pests they identified. Around Bwindi, as it is a national park, some pests such as the honey badger and chimps must be conserved and so the hives must instead be protected by suspending them from wire or by wrapping wire around the hives to make them difficult to open.

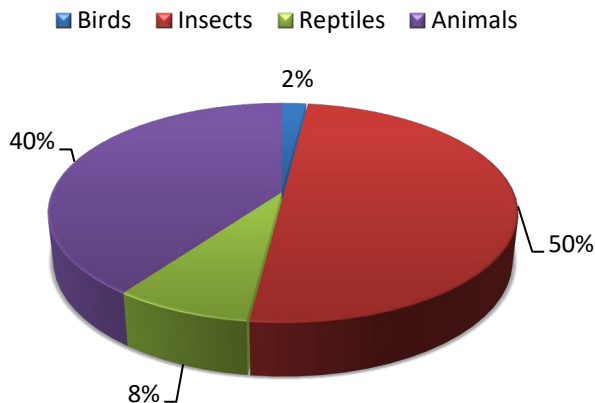


Figure 8: Pie chart showing estimates of destruction to beekeeping caused by different pests around Bwindi. These rates vary around Bwindi based on the particular species present at a given location.

Figure 9: drawings of the different types of pest discussed in the training workshops. Drawings and whiteboard notes were the favoured teaching method for during the classroom training.

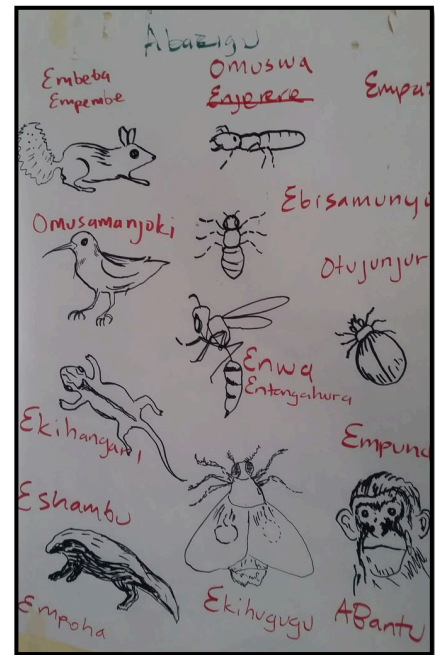


Table 4: The types of pest discussed by the trainees and their proposed solutions

Pests	Solutions
Insects <ul style="list-style-type: none"> Safari ants (Empazi) Brown ants (Embismunyu) Wax moth (Ekihugugu) Hive beetles (Otujunuri) Termites (Omuswa) Wasps (Entangahura) 	<p>Are similar for all insect pests:</p> <ul style="list-style-type: none"> Use fresh ash to control crawling pests Grease the stands of hives to prevent ants Place old car oil at the base of the poles to prevent termites Well-constructed hives with entrance holes less than 8mm in diameter to prevent flying insects Crop out old combs which attract wax moths and hive beetles Clean apiary with short grass in surrounding area A strong colony should be able to counter the challenges posed by insects
Animals <ul style="list-style-type: none"> Honey badger (Eshambu) Rats (Epmembe) Chimpanzee (Empundu) Humans (Abasuma) 	<ul style="list-style-type: none"> For most animals, fence the apiary and train keepers with good practices For honey badgers, tie up hives and hang them on single stands <p>For humans:</p> <ul style="list-style-type: none"> Educate the surrounding community to avoid poor agricultural practices like bush burning Regular inspection to reduce rates of vandalism

Reptiles

- Lizards (Ekihangari)
 - Snakes (Enshoka)
 - Good bee hives with limited entrance and without landing boards
 - Regular inspection and cleaning of apiary
 - For snakes, plant tobacco in the apiary
-

Birds

- Honey guide (Omushamanjoki)
 - Traps and nets
 - Catapults and bow and arrow
-

Bee pasture and forage

Bee pasture and forage is crucial for beekeeping as it is plants that provide nectar and pollen to bees as they pollinate. The distribution of vegetation in Uganda varies based on soils, altitude and climate. Bwindi Forest and the surrounding community areas present a big opportunity for beekeeping due to the pasture available.

The training workshops used the simple equation below to highlight the importance of forage to the keepers. Without one component nothing can transpire to fulfil the beekeeper's objectives. This means that local keepers should carefully consider how the land around them is managed such that it provides the best habitat for bees. Practices which destroy or damage vegetation will negatively impact on honey production. Afforestation and conservation are crucial to developing and sustaining the beekeeping enterprise.



The trainee keepers then produced a chart of bee pasture. They divided into three groups and collected various bee plants to stick to the charts. The groups were able to identify the plants, their flowering period and link them to the honey flow seasons. They also learnt how the type of vegetation used by the bees affected the taste, colour and nature of crystallisation of the honey.

Seasonality

Seasonality for beekeeping varies from place to place depending on the species of plant present and weather patterns. The distribution of rain dictates when vegetation flowers, for some species in Bwindi this can be as infrequently as once every seven years. This in turn influences when bees are able to access nectar and produce honey.

For some parts of Bwindi the peak honey harvesting season is in August and September. For others it is in March and April with August and September forming a minor harvesting season. Climate change is now altering the patterns of rain and affecting the traditional harvesting seasons so the trainee keepers were advised to conduct regular inspections of the hives in order to maximise their honey harvests. During the dearth period, when the size of the colony dwindles, beekeepers should cut out the old dark combs to make space for fresh combs that encourage the colony during the honey flow period.

Honey harvesting

Beekeepers should open their hives regularly to check if the honey is ripe for harvesting. 75-80% of the comb will be capped (sealed off) when it is ready to be harvested. Harvesting honey which isn't ripe can lead to fermentation and compromises the quality of the product.

In traditional and top bar hives the keepers should work forwards from the back of the hive cutting out the comb. During harvesting they should avoid using excess smoke as this may compromise the quality of the honey. A brush may be needed to gently remove bees from the comb. The comb should quickly be placed in a clean airtight bucket to avoid bees in the honey.

In frame hives a mechanical device called a honey extractor can be used. This is advantageous as the comb is left intact. The extractor spins the frame hive round generating centrifugal force which flings the honey out of the combs.



Figure 10: (Left) a practical session harvesting honey from a top bar hive in full protective apparel.

Figure 11: (Right) locally produced honey and locally woven baskets packaged together for sale to tourists in Bwindi.

Recommendations and way forward

Since the training by Golden Bees Ltd, honey supply from around Bwindi has nearly doubled. Before the initiative three to four metric tonnes of honey were supplied a year; last year the supply was six metric tonnes. This is because there are more producers, more suppliers who see the potential of the local market, and the keepers are also producing more honey. Demand for honey from the tourist lodges has grown and small shops have begun selling the honey to tourists. In Ruhija one shop is packaging the honey with handicrafts from the [Bwindi Collection](#) to sell as a bundle.

Following the course each trained beekeeper was tasked with making five transitional hives to begin scaling up production. These were completed by July 2017. The intention was that every trained beekeeper would have 20 hives by the end of the year and some of the keepers opted to work in small groups to make their hives. There is now scope for some of the keepers who are trained in making the transitional hives to become local artisans and take advantage of the skills they have learnt to produce hives to sell to others who do not have the time or skills to make them themselves.

Despite increasing honey production around Bwindi, the demand for local honey now exceeds production capacity. Local beekeepers are unable to meet the increasing orders from the tourist lodges. More funding is currently being sought to expand the initiative. Private Sector Foundation Uganda (PSFU) has expressed interest in supporting the initiative and discussions with PSFU are scheduled for early in 2019. Additional funding would enable Golden Bees Ltd to build a sustainable extension system that supports the trainee keepers in putting into practice what they have learnt and reminds them of the best practices.

Improvements to the branding of the honey can also be made. Partners in Food Solutions, a US company and offshoot of General Mills, has agreed to support efforts to improve the branding as part of a programme giving back to producers by sharing expertise. This has been planned for January 2019 with the intention of creating a “gorilla honey” brand.

Further ideas and considerations for building on the beekeeper training include:

- Setting up a tourist honey shop in Rubuguri and selling points in the tourist lodges with well packaged branded honey as souvenirs.
- Diversifying production into other bee products such as propolis and bee venom. This will require investment in extra equipment.
- Further promotion of the [honey trail](#) around Bwindi. Trails such as this offer tourists the opportunity to learn more about the local environment, culture and village life.
- Assisting beekeepers in Rubuguri in negotiating with the Ugandan Wildlife Authority (UWA) on placing bee hives outside the park but close to the perimeter so that the bees may forage in the forest.

Conclusion

The Bwindi beekeeping initiative aims to build sustainable and self-reliant communities who can maximise the economic benefit from tourism to Bwindi Impenetrable Forest National Park. Previous interventions with beekeeping had minimal impact yet Golden Bees Ltd contribution to knowledge and skill has had a measurable impact with production almost doubling since the training. More can still be done to develop beekeeping enterprise around Bwindi. The trained beekeepers must try as far as possible to implement the best practices taught to them as well as sharing their knowledge and skills with other community members interested in beekeeping. Golden Bees Ltd needs to build strong business linkages with the local beekeepers and other stakeholders in the region to foster an atmosphere that will promote and strengthen the beekeeping enterprise. Continued support will enable a critical mass of local keepers to be reached who are then able to enjoy economies of scale and who transform beekeeping in Bwindi from a subsistence activity to a commercial activity.



Figure 13: (Left) The final meeting for the beekeepers having received two days of training in best practices.

Figure 12: (Right) Brian Mugisha, the owner of Golden Bees Ltd proudly presents the first jar of Bwindi branded honey as a major and unique outcome of the training.

This report summarises the project's training programme provided by Golden Bees Ltd. which sought to build the supply of Bwindi honey by educating local beekeepers and introducing low cost hives, which enable the communities around the area to derive greater benefit from gorilla-based tourism in the Bwindi Impenetrable National Park. This report explains the background to honey production around the National Park, before discussing the project's progress since the training sessions and explores recommendations and a way forward for the beekeeping industry around Bwindi.



Project Report

Biodiversity

Keywords:

Uganda; Livelihoods; Bwindi impenetrable national park; Tourism



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