

TUNADO

*A Membership & Apex Body for
Coordinating Apiculture Sector in Uganda*

API News

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Editorial Message

Dear readers, am pleased to present to you our first issue of the Api-Newsletter 2023. A bee hive of activities has been going on in the Apiculture sub-sector and we want to acknowledge the contribution of each and every stakeholder that has worked relentlessly hard to see that TUNADO delivers on her mandate of providing a national platform for an inclusive green apiculture sector growth through capacity building, lobbying and advocacy, market development, product & services diversification and information sharing. We can say that most of the apiculture businesses consider 2023 as a year of recovery after the two covid-19 years (2020-2021) and as TUNADO, we are there to support all previously affected businesses that may require our help through all our structures. We equally take this opportunity to thank everyone that has shared their story in our previous Api-News issues, thank you very much. Your stories have not only empowered but also inspired many beekeepers out there and the results are visible. I want to tell every reader of this newsletter that this is a special newsletter, why? Its special because TUNADO will be celebrating 20 years of existence this year. We further take this opportunity to thank each and every one that has been part of our journey, we have existed and continue to exist because of your overwhelming support. To mark the celebrations, a lot of achievements and shortfalls have been documented by the executive director, don't miss his communication! But still in this issue, don't miss to read about the inspiring stories of Jessica Kahuju and Akol Susan under our quarterly series of women and youth in beekeeping. Another intriguing story you can't afford to miss is Francis's



Stephen Muwanguzi, Knowledge Mgt and Communication Officer TUNADO

story. The blind beekeeper in Gulu district that has beaten all odds to becoming a successful beekeeper despite his visual disability. This is quite a mouthwatering api-news issue with so many interesting stories. Enjoy reading and feel free to write to us in case of any inquiries and feedback. info@tunadobeas.org. Visit our website www.tunadobeas.org for more of these stories and information regarding the sector. Follow TUNADO on all our social media platforms- Twitter @TUNADO_Bees, Facebook @Tunadobeas comment, like and share our posts. This helps our information to reach a wider group of people. Enjoy!

NOTE: TUNADO welcomes articles for this Newsletter from all sector players at no cost.
For more information and contributions, please contact the editor on

info@tunadobeas.org
or
bphionah@tunadobeas.org

COMMUNICATION FROM THE **CHAIRPERSON** **BoD**

As the Chairperson of the Board of Directors, I am honored to address our members and stakeholders. I want to begin by expressing my deep gratitude for your continued dedication and commitment to the Apiculture Sector. In 2022, TUNADO held its 15th Annual General Meeting in which the members exercised their constitutional mandate to elect a new Board of Director (BoD) that will serve the organisation from 2022-2026. I was re-elected as the Board Chairperson. On behalf of the new BoD, we thank all members for giving us this new mandate. We pledge to continue taking TUNADO to greater heights.

As you know, TUNADO has served as a focal point for Apiculture Sector Capacity Building in Uganda and continues to sustain a positive dialogue with duty bearers on behalf of the apiculture sector. At present TUNADO has 391 Business Membership associations, cooperatives, CBOs and companies, which are slowly being transformed to Rural Transformation Centers (RTCs). The RTCs are aimed at improving bee products quality assurance systems right from production to marketing.

In 2020 and 2021, TUNADO was not able to hold its Annual Honey week. I was pleased that in 2022 we were able to hold our Annual Honey Week at Kingdom Kampala Mall from 7th – 10th September. The honey week run under the theme “Promoting Green Inclusive Beekeeping for Wealth & Environmental Protection”. Over 85% of the exhibitors were able to market their products as well secure contacts for future businesses. Over the last year TUNADO used its business wing The World of Bees (WoB) to support its members in processing, packing and equipment making to harness different market. WOB maintained all the four shop outlets for market promotion, beekeeping consultancy

and equipment supply.

Over the last year, TUNADO was able to grow and build its Human Resource capacity to improve service delivery to our members. We recruited and deployed 18 Apiary Masters to enhance the much-needed extension services to beekeepers. Additionally, TUNADO managed to retain and maintain all its staff.

To build a self-sustaining TUNADO, The Board of Directors with technical support from management, intensified resource mobilization through exploring different avenues for financial support. As a result of the resource mobilisation, I am pleased to inform members that by the end of 2022, construction of TUNADO Multipurpose Complex located at Dundu along Gayaza-Mukono highway was 60% complete. Efforts are being made to have it complete by 2024. When complete, the building will house TUNADO secretariat, conference halls, laboratory, training centre, video conference, exhibition rooms, beekeeping museum, export storage facilities and a demonstration center.

There are more opportunities for TUNADO in the near future. TUNADO is well recognised by Government (through MoU) and apiculture stakeholders as the only national body with members’ mandate to coordinate the apiculture industry in Uganda. This makes it a one stop centre for apiculture information exchange, networking and dialoguing platform in the country. Secondly, the presence of the TUNADO Business wing (World of Bees Uganda Ltd) provides remunerative services and market for honey, beeswax, other bee products and equipment produced by TUNADO members. Thirdly, TUNADO has strong partnerships with international agencies and private sector plus positive attitude from the general public on what it does and the



Prof. Robert Kajobe – Chairman Board of Directors, TUNADO

sector as a whole. This makes it easy for TUNADO to engage with stakeholders to cause collective development in a coordinated manner.

Notwithstanding these successes and opportunities, we are faced with some challenges that we should address. The challenge of securing and maintaining strong core funding therefore remains a priority. There is also unguided sector support, in which some development partners provide duplicate services to beekeepers and promote non-suitable and affordable technologies and practices. Most development partners view apiculture sector support as donation of beehives to beekeepers and little emphasis is still put on skilling and extending support to private sector yet they provide market and are the actual drivers of the sector. Climate change due to environmental degradation has affected bee populations and honey yields. Beekeepers reported reduced forage plants which affected bee colonization and therefore honey production. There is also increasing misuse of agro-chemicals has affected the bee population.

Thank you for your commitment to beekeeping, and for the important work that you do to support our communities and our environment. I look forward to working together with you to build a brighter future for the beekeeping sector throughout Uganda.

Communication from the **EXECUTIVE DIRECTOR**

Dear Members, apiculture actors and all supporters of apiculture industry. Allow me take this opportunity to welcome you from 2022 to year 2023 with a lot of positivity and excitement. Last year was supposed to be a year of recovery from two years (2020-2021) COVID 19 lockdown years, However, the year 2022 came with lots of challenges with almost everything doubling in prices. As TUNADO we have learnt a lot in past three years that beekeeping is a resilient enterprise, bees depend on nature and we do not import beekeeping inputs like all other agriculture enterprises that were heavily affected by global geopolitics, economy and COVID 19. We learnt that when you cannot move to look for money, bees move and make money for the beekeeper, we also learnt that when no one is there to provide seedlings/ seeds, bees swarm and fill our hives, we learnt that as agro-based products are perishing due to lack of facilities including transportation, bee products instead do not go bad. We learnt that as new diseases emerge amongst the world human population, bee products provide solid solutions. We learnt that as people's income increase and their health-conscious awareness increase, the demand for bee products increase too. We learnt that as people engage in most of the popularly promoted cash crops like coffee/macadamia/cashew/ avocado/ and all other fruits and oil seeds, the more they envy beekeepers for their bees. Another lesson learnt is that seasons have changed, and

True Beekeepers have to care for their bees (e.g. provide water, shade, forage, pest management, inspection among others). We also learnt that with reducing hive donations, beekeepers can make their own hives and become independent. Most interestingly we learnt that beekeeping is possible for youth, women, PWDs and marginalized community groups like the IK, the Batwa and Refugees. What these marginalized groups need is an arrangement that allows them to participate in market ecosystem, hence our Rural Transformational Centre -RTC Model is a perfect suite to make markets, extension and credit work for smallholder farmers to build resilient, independent and professionally run community-based apiculture businesses.

As we celebrate 20 years of TUNADO's existence this year, allow me thank all those who worked hard to the creation of TUNADO starting with the President of Republic of Uganda H.E Yoweri Kaguta Museveni, Hon Modo Kagonyera (by then Minister of General Duties in the office of the Prime minister in the year 2002), Dr. Nicola Bradbear (Current Director of Bees for Development), thank you. You all worked very hard to the establishment and nurturing of TUNADO and for that, we are very proud of you. To Ms. Margaret Ogaba, thank you very much, Ms Alice Kanagve (former Asst. commissioner, productive entomology -MAAIF and current TUNADO board member), to our first Board



Dickson Biryomumaisho
Executive Director, TUNADO

Chairperson Ms. Maria Odido, our first Executive Director Mr. Ndyabarema Robert and all the founder members (e.g Mr. Elly Mugisha, Mr. Bagonza Adlof, Prof Donald Kugonza, Prof Jacob Agea, Prof Kajobe Robert, Mr. Magezi Eliezer, the late Ombanya) board members and management of 2003-2008 to the second board under the able and cooperate leadership of Mr. Jurua M. Jackson, you surely made a transformation to the 3RD board again under Mr. Jurua M. Jackson as a board chair and Mr. Biryomumaisho Dickson as Executive Director (2011 to date) to the 4th board under able and professional leadership of Prof Robert Kajobe 2017-2022 and to the 5th board still under Prof Robert Kajobe (2022-2026), you make TUNADO shine. To all Esteemed members of TUNADO thank your infinite times. To all our strategic partners (especially MAAIF, Bees for Development UK, Trias, Woord en Daad, EU, NORAD, SCU, SHA, THP, FAO, FTF, ZOA, MUK, OXFAM, ENABEL, WWF, NFA, UWA and many others) thanks a lot for your overwhelming support. I am confident that all of you are extremely proud of the current achievements we have made together.

“When you cannot move to look for money, bees move and make money for the beekeeper, we also learnt that when no one is there to provide seedlings/seeds, bees swarm and fill our hives, we learnt that as agro-based products are perishing due to lack of facilities including transportation, bee products instead do not go bad.”

Pondering on a few achievements that we have achieved together as a family, I could not hesitate noticing how beekeeping has managed to transform thousands of livelihoods in the country. Its capital free advantage with nature-based beekeeping solutions continues to pull a lot of interest from poor, marginalized communities around the country. Currently, the apiculture sector has without doubt proved to be one of the sought-after sectors for employment by youth and women, something that never used to happen due to over domination by Men.

We have relentlessly worked very hard towards providing market for all the different bee products and ensured price stability of these products. Before I joined the apiculture sector, the issue of access to market and a limited apiculture product list was one of the biggest problems beekeepers were faced with. This issue was probably explained through poor packaging and branding of bee products to make them competitive in the market. As I speak to you now, the Apiculture product list has not only increased with products like honey bees wax, propolis but also become very attractive to the extent that most of them are now deemed fit for the export market. Further still, with the formation of **World of Bees**, a member's social enterprise, we have made it possible for members to eliminate middlemen in the quest for market. **World of Bees** Ltd has not only been pivotal in providing market and decent incomes to beekeepers but also solved the biggest issue faced by modern day beekeepers of access to credit with the introduction of the digitalized **Apiculture Business Fund**.

Looking back 20 years ago, no beekeeper would stand proudly to speak about exporting bee products to Europe. Middle East or even in African member states. Now, we can proudly speak that beekeepers are just one step closer to the export market with the construction of the Export hub in Gayaza that stands at 60% completion.

It's on this note that I take the opportunity to thank all members, development partners and well-wishers that have supported us in this noble cause. Soon, we shall be seeing off the first batch of bee products to Europe.

There is pretty much success and a few shortfalls to share with you in commemoration of our 20 years existence among which is inadequate and non-reliable data to guide on investments,



*Nicola Bradbear – Director,
Bees for Development and one of the
founding members of TUNADO*

lack of apiculture policy, misuse of agrochemicals, reducing bee habitat, taxation, inadequate extension and limited access to financial services, high level of informality and some level of uncoordinated and duplicated activities. As I conclude, one thing that I want all readers to appreciate is that bees form part of Uganda's future stability in terms of social, economic and ecological given their function as pollinators and ability to generate income through their products. Avoid being counted as one who destroyed the bees and compromised the continued existence of mankind. Lastly this year we shall bring you historical articles and stories that have shaped the beekeeping sector in Uganda. Keep looking forward for the next issues. Go plant or conserve a tree now and as TUNADO we say plant/conserve a tree that your bees can feed on, that can produce products for you to eat and sell without cutting a tree and examples of such high value trees are macadamia, cashew nut, shea and fruit trees. Order with World of Bees for the seedlings +256756071654/ +256760041197

Thank you so much for being part of us, believing in us and for all the different roles you continue to play to uplift the apiculture sub-sector in Uganda. Together, we are destined for greater heights!

**By Biryomumaisho Dickson
ED, TUNADO**



The export hub in Gayaza, Dunderu, nearing completion will help to improve market access through exports

AGROCHEMICAL MISUSE, THE 'TIME-BOMB' TO BEEKEEPING IN UGANDA.

The term agrochemical, also commonly called pesticide refers to any substance used to kill, repel, or control plants or animals that are considered pests. They include: insecticides, herbicides, rodenticides and fungicides. Pesticide use is increasing across all parts of Uganda due to growing pest challenges and the demand for agricultural products. Farmers are increasingly using agrochemicals to reduce yield and post-harvest losses. However, most farmers purchase, handle, and apply toxic agrochemicals with inadequate equipment, knowledge, and technical support. A study by Staudacher and others in 2020 indicated that although over 90% of smallholder farmers were aware of the negative health effects of agrochemical exposure, less than 2% used personal protective equipment during handling and application of agrochemicals. In addition, poor disposal of agrochemical residuals is a key concern with 19% of the farmers reported to be disposing pesticide residuals into water bodies such as rivers. The effects of agrochemicals in these cases are not limited to aquatic life but include negative effects registered across other organisms including bees.

Bees get exposed to agrochemicals when they visit flowers that have been sprayed or dusted with these chemicals or they may eat residues found in pollen and nectar of contaminated plants. During application, agrochemical droplets or dust may be blown by wind to nearby apiaries leading to contact with bees in hives. In other countries, some pesticides are used in hives to control parasites like varroa mites which leads to contact with bees and contamination of bee products. Fortunately, until now, beekeepers across Uganda have not been reported to use agrochemicals to control varroa mites.

Exposure of bees to agrochemicals results in negative impacts on their health and survival at both individual and colony levels. For instance, some



Woman sprays her maize garden infected with pests

agrochemicals directly kill the bees while others have other undesired effects (e.g. worker bees may fly out of the hive and fail to locate their route back to the nest due to loss of memory). Other agrochemicals work synergistically with parasites to negatively impact on bee health e.g. by lowering the immunity of honeybees making them susceptible to viruses.

Yet in Uganda bees play important roles in agriculture, food security and biodiversity conservation. For instance, the estimated value of bee pollination services was US \$0.49 billion for crops valued at US\$1.16 billion in 2011. Therefore, if bee populations decline, crop productivity will drop because bees are responsible for approximately 40% of crop productivity arising from their unmatched pollination service. When bees get exposed to agrochemicals, their products also get contaminated. Human consumption of such products with residues of agrochemicals is associated with health complications. In addition, having pesticide residues in hive products limits their export to international markets.

There is need for urgent responses from all stakeholders to threats to honeybees and public health arising from irresponsible agrochemical use. These will include: mass sensitization of farming communities on safe handling and use of agrochemicals; raising awareness about the health risks of agrochemicals and their effects on food quality among farmers and consumers; developing and enforcing stringent measures to control the types of agricultural chemicals used in Uganda; establishing stringent by-laws related to the sale of agro-chemicals; developing a rigorous control system for agrochemical residues in agro-products and scaling up of training and registration of agrochemical applicators on best practices to minimize effects of agrochemicals to public health and bees.

Compiled by Dr. Moses Chemurot
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Why is it important to **buy a standard KTB beehive**?

- Every beekeeper deserves to purchase a well-made beehive with the right dimensions. This is because it is easy to manipulate. The bees build combs on each top bar or flame.
- Bees are able to defend themselves if the entry holes are of the right standard size i.e. not too big and not too small in size (8-10mm wide). And (48cm length).
- Bees can easily control the internal temperature if the beehive has no other external openings.
- The cover is well made not allowing pests to harbor above the top bars and well-fitting to stop rain from reaching the top bars. The cover should measure 56cm width X 89cm length. This cover fits on a beehive body measuring 82cm length X 44cm width from the top front and 23cm on the lower front holding a top bar of 3.2cm width X



Fig 1 showing standard beehive (KTB)

- 48cm length.
- It is also easy to set up because it has wires for hanging or tying on the firm ground or stand.
- It's made from good timber (hard wood) that aids colonization and

if it's made from hard wood, it stays longer giving the beekeeper possible returns on investment if well maintained. A well-made beehive is easy to inspect, harvest and manage.

Standard measurements of a top bar bee hive

Figure 1: Dimensions of a KTB hive

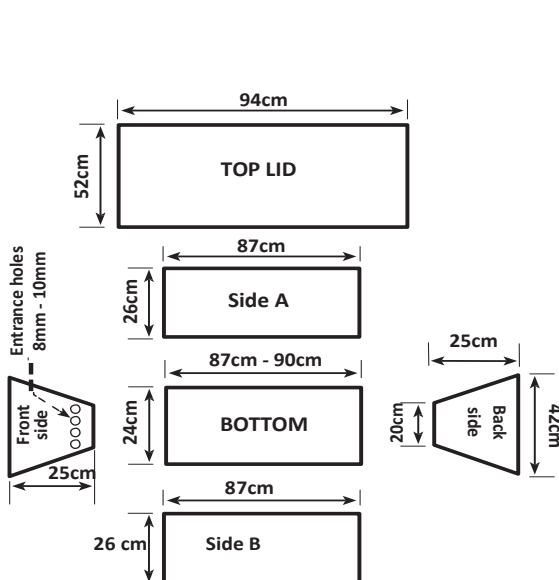
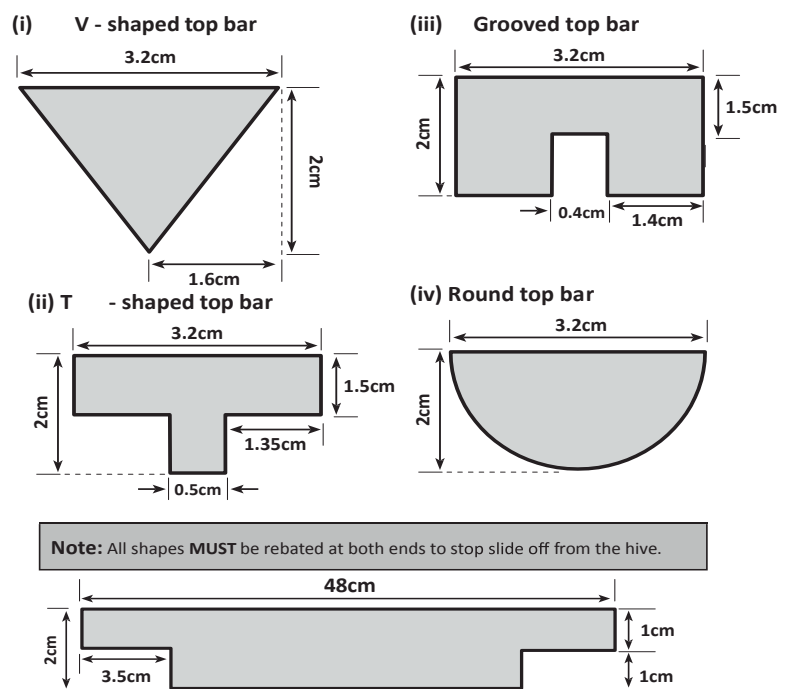


Figure 2: Types of top bars: T-shaped, V-shaped, Grooved-top bar and half round top bar



(Source: National Beekeepers' Training and Extension Manual 2016)

NOTE: A standard beehive should not be compromised as it causes losses to the beekeeper and cannot easily be managed.
By Ayebazibwe Patrick

Women and Youth in Beekeeping – Success Stories of Kahuju Jessica and Susan Akol in beekeeping

How a Graduate of Construction Engineering found Employment in Beekeeping

My name is Jesca Kahuju a beekeeper based in Rugendabara Town council, Kasese District. In 2016, I graduated with a national diploma in building and civil engineering (NDBCE) at our mighty college UTC Kichwamba and as a young graduate then, I thought that immediately after the course, I would land into a nice job that would earn me a good salary, buy a car and build myself a good house. Unfortunately, it did not happen as I had thought. A year after, I applied and worked with Rwimi hydro power project as a civil supervisor and later with AMEGA legacy general enterprise ltd in 2018 but while working with AMEGA, I was attached to Bunyangabu beekeeper's co-operative (BBC) during the construction of their seminar hall and processing rooms. My work at BBC as an engineer exposed me to beekeeping. I used to see many beekeepers deliver honey to BBC and receiving cash on spot. My work at BBC coincided with skilling project. It was then that I applied to be part of the skilling project and as a beneficiary, I was trained in apiary management and Hive Making. I was then awarded DIT certificate under the Ministry of Education and Sports. The project had a component of startup kits to the skilled youth and I was among the beneficiaries that received KTB (Kenya top bars) hives, smoker and Bucket.

Having completed my training and awarded a startup kit, I decided to venture into beekeeping and started with contacting my brother in law, Balinda Yosuf for a piece of land to set up my apiary. I got the land and straight away started installing the hives in different places to trap bee



Jessica stands next to her apiary of 45 hives, with 20 colonized hives



swarms before transferring them to the main apiary. While waiting for them to colonize, I started establishing my apiary and making hives using my little savings of **Ugx 1.2 million**.

Out of the 1.2 million Ugx, I was able to make and add 15 KTB hives on top of the 08 that I received currently, I have 23 hives. With time, 7 hives got colonized and the first harvest gave me 35kg of comb honey which I sold at BBC for 8000 Ugx per kg, earning me a total of **Ugx. 280,000**. I got motivation and decided to use part of it to purchase a protective gear. I further used the balance to expand my apiary and I had a total of 21 colonies.

The Role of TUNADO for My Success in Beekeeping

As a beekeeper, it is hard to talk of my success in Beekeeping without mentioning the role of The Uganda National Apiculture Development Organization (**TUNADO**) I got to know about TUNADO's existence when I was selected by BBC as a Bee Champion under the **Bee a Champion 1** project that was being implemented by TUNADO and BBC as an RTC with funding from Woord en Daad.

At this stage, TUNADO/BAC 1 supported me with Technical knowledge provided by Apiary Masters. The support further included inputs like hives, protective gear and Buckets on cost sharing basis. I acquired 30 KTB hives with 3 catcher boxes and this enabled my hives to get colonize quickly.

“
Out of the 1.2 million Ugx, I was able to make and add 15 KTB hives 23 hives.
”

Achievements

- With the training from TUNADO and BBC, I am now well equipped with the necessary technical skills in beekeeping that everyone wishes to have.
- I currently own and manage an apiary with 45 colonies.
- Within a period of 2 years, my hive productivity and general honey production has increased from 35kg to 292kg earning me Ugx. 2,482,000. In a single season.
- Using the proceeds, I and my auxiliary beekeepers established and registered a hand craft business

Beekeeping Changed My Life – SUSAN AKOL

(Initiatives For social Development and Transformation) for income diversification.

- Out of my hard work as a beekeeper and interest in Beekeeping, BBC management recommended me to TUNADO for an appointment as an apiary Master under BAC 2 and am currently serving in the same position, providing apiculture extension services to beekeepers in Kasese District.

Future plans

- To add value to my honey and other bee products that will later fetch me a higher and competitive price.
- To improve my apiary to a modern standard apiary and tap into apitourism
- To have a well-established honey collecting center in Kasese district to serve beekeepers.
- To mobilize more women and youth to participate in Beekeeping

Advice to the youth and women

- I advise my fellow youths to take up beekeeping as a business because it requires limited resources.
- Beekeeping needs interest, confidence and patience.
- Unproductive land can be used for beekeeping
- Seek knowledge before you start, as this will help you to avoid mistakes.
- Make beekeeping a family activity for sustainability purposes
- Regardless of your profession, beekeeping can be done by any person as long as you have interest.

Appreciation

Basing on the achievements I have attained in the last four year, I wish to extend my appreciation to all the different stakeholders that have given me a hand. In a special way, I would like to thank TUNADO for the support I have got and BBC for ushering me into the world of beekeeping.

As a young female youth, after sitting my 'O' level exams, I wanted to continue and sit for 'A' level exams too. However, my parents could not afford for two major reasons.

1. I was a girl and it was considered a waste of time and resources, as girls were supposed to get married.
2. My dad is a polygamist and did not have time for us.

In the year 2000, a friend of mine heard an advert on radio Uganda. A new program on beekeeping was being advertised and she felt that it would benefit me if I enrolled for it, I was alerted to tune in at 1:00pm that same day, to be able to hear the announcement. After hearing the announcement, she asked for my opinion about the new program but at that time I was not sure about anything, first, I was hearing the program advert for the very first time and yet I had already applied for a nursing program at some other institution. But nevertheless, my friend encouraged me to consider enrolling for beekeeping since nobody had done it before as a course, and she further convinced me beyond reasonable doubt that I would not regret doing it.

There came a challenge of where the money would come from since the interviews were to be conducted in Kampala. She gave me her word, that she would help to convince my father to avail me with all that I needed to go for the interviews in Kampala. The following day, after my friend convinced my dad, he came back from his usual social drinking joint and wanted to talk to me. He told me to organize and go to Kampala for the interviews. This

opportunity came after me being home for almost 1 year without studying. The interviews were conducted in Kampala at the National forestry offices and on my arrival for the interview, the panel team asked to see my 'O' level result slip. On seeing it, they wondered why I had not joined 'A' level because I had excellent results for a course like beekeeping. In the end, I was not actually interviewed, but was asked which program I was interested in and my response was beekeeping. Why beekeeping? was the next question and my response was, I like it. I was given the admission letter immediately and there after enrolled for the course. Shortly after my second semester, tuition became a problem, my daily drinking father was being discouraged from paying my tuition. His close friends argued, that since when do people go to school to learn how to keep bees which any one can randomly get from the wild.

Another one added, that since when did women start keeping bees? this was more like a bomb to me. My father was being discouraged by his friends while I was at school and on my side, I too, was being discouraged by my peers. In a short while, I saw my future getting stuck. My father was not willing to waste his money on me anymore. I went back to the lady who first encouraged me to go for this course and told her what had happened. She urged me not lose hope, but rather try another plan which was contacting a local (Not for profit) organization in our area called SOCADIDO (Soroti Catholic Diocese Development Organization) for employment. When I got there, I was awarded a temporary job, earning me 150,000 Ugx per month. With this, I managed to save for my tuition and I was therefore able to complete my program



Susan Akol conducting beekeeping trainings for youth and women in soroti district.



by 2004. I graduated and was awarded a certificate in beekeeping. Fortunately, before I sat for my last exams, I got a call from the principal of the Institution, calling me to his office and when I got there, I was told that I have been recommended for a job in Soroti district local gov't. That is when I got to know the beauty of studying beekeeping.

I made some money and was now able to enroll for my diploma without any tuition difficulty. With beekeeping, my life has never been the same. Currently I am a second-year master's student. Am persuing a Masters in Tropical Applied Entomology and Parasitology of Gulu university under private sponsorship.

What do you do for a living?

I train young people / youth, boys and girls in applied beekeeping, Training of farmers in modern beekeeping, Product development, Honey processing, packaging and marketing, Propolis and bee venom processing, Outreach services , Setting agro -processing incubation center and mentorship of young people in basic beekeeping skills.

A word to young women and youth

Beekeeping is an area any one can venture in whether educated or not since it does not require lot of skills.

For people like me and you who do not own any land so as to engage in production (setting up an apiary) we can take the later part of the value chain i.e. value addition. Farmers produce the products then we add value, you can engage in equipment making to earn a living. Even the PWDs can do these things while in a wheel chair.

Young girls, beekeeping is for us because women are patient, caring and loving making us the best beekeepers in the planet let no one discourage you.

Let's go beekeeping to live healthy since A pi-therapy is one of the known natural ways for treating a number of illnesses. I have never slept hungry, all thanks to beekeeping. When I sell one or two jars of honey I am able to get the necessities for my family. Even when the father of my first born abandoned me, beekeeping through value addition and other services kept us moving forward. My boy is at school and has just sat for 'O' level. He is also a trained beekeeper and during holidays he does honey processing and packaging and when the honey is sold he gets paid.

Conclusively, let's go beekeeping and protect our country against global warming since beekeeping allows preservaton of trees and environment, fight poverty and be job makers not job seekers

May the Almighty God bless the works of our hand as we expand beekeeping in our country.

HONEY BEE COLONY MANAGEMENT

The long relationship between humans and honey bees began with honey hunting. To reduce the hardship and unpredictability of harvesting honey from the wild colonies, people found ways to increase their control over bees through ownership and management of colonies kept in hives.



What is a hive?

A hive is container provided by a beekeeper for the shelter and protection of a bee colony. Hives can be made out of grass, logs, bark, and clay and arrange of other materials depending on what is locally available. Bees will live in any style of hive that suites their needs. Hives are either fixed comb or movable comb.

Why keep bees in hives?

A hive is for the convenience of a beekeeper. Hives enable beekeepers to assert ownership over a colony and keep bees in a place known to them, so harvesting becomes easier. Movable comb hives depends upon understanding the concept of bee space. Top bar hives and frame hives can be opened and the combs removed and replaced without causing any damage. This enables the beekeeper to check what is happening inside the hive and monitor the buildup of honey. A beekeeper is then able to manipulate the workings of the colony to their own advantage. Fixed comb hives do not enable the beekeeper to take out a comb

and replace it, however this form of beekeeping can be very profitable because the hives are low cost.

Which type of hive is best?

This usually depends on the circumstance of the beekeeper, the resources available and what they want to achieve. Any hive will do as long as it works and affordable.

A year in the life of a beekeeper

To ensure high honey yields, colonies need the maxmum number of foraging bees during periods of peak honey flow and adequate space in the hive to store honey. Bees naturally build up their population during periods when resources are available and the beekeeper can synchronize their management tasks to enhance productivity.

The management tasks of a beekeeper include;

- Making hives
- Establishing an apiary in a suitable location and placing the hives
- Baiting the hives to attract wild colonies and swarms

- Watching the hives to know when they become colonized
- Visiting the colonies to check that they are not under threat from predators and pests
- Clearing the apiary of weeds and over hanging vegetation to ensure that bees have a clear flight path to the hive
- Opening the hive to harvest when there is surplus honey
- Ensuring the bees are not disturbed too much or they will abscond

Setting up an apiary

An apiary is a place where groups of bee colonies are kept. The optimum number of bee colonies depend on the availability of bee forage. Start with 12 colonies in an apiary and gradually find out how many colonies the area can support.

The site of an apiary should be:

- Accessible
- Away from where people congregate and or livestock are kept
- Near to plenty of flowering plants especially trees
- Near a place where bees can find water
- Shaded from strong sunlight and sheltered from wind
- Away from land that is sprayed with pesticides

Preparing the site and installing hive

Vegetation and obstacles around where the hives are to be placed should be cleared to allow for easy movement. A living fence could be planted around the area to form a barrier between the hives and other human or animal areas. Nectar producing plants can be planted to add to the forage available for bees.

Hives can be placed on stands or hung by wires from trees or posts. They should be positioned at least 1m off the ground. Living stands have many advantages because they do not rot, are not eaten by termites, provide shade and produce nectar. The best kind of living stand is a tree! Hives should be placed level, with enough space between them to allow the beekeeper to work. Placing the legs of stands in tins of oil or covering them with grease will prevent ants from reaching the hives. Wires should be greased for the same reason. Make sure that the entrance of the hive faces away from footpaths.

Achieving colonization – no bees -no honey – no money

In Uganda, colonization of hives can be achieved by attracting wild colonies and swarms. Established colonies nesting in the wild or in hives produce at particular

times of the year. Find out from local beekeepers when this happens. Sometime a colony may leave their nest to forage elsewhere. These bees are migrating and you might attract them to you hive if there plenty of flowering plants available in your area.

Hives need to be clean and baited to attract honey bees to live there. Bees will use cavities that have been occupied previously, so beeswax is a particular effective bait. Applying beeswax start up strips to top bars or rubbing bees wax inside fixed comb hives is an excellent way of attracting bees. Plant materials such as lemon grass can also attract swarms. Honey should never be uses as a bait because it will attract other insects hence making the hive unattractive to swarms. If the bees have not moved in, check that there are no pests inside and add more baits if necessary.

Reasons bees do not colonize

- If the time of the year is not right for swarming
- If the hive small is not conducive to colonization
- Lack of forage in the vicinity
- Invasion by ants or other pests
- Can be other reasons beyond human understanding.

By Aaron Bomujuni
Membership Officer - TUNADO

SURE DEAL! YOUTH SKILLING FOR EMPLOYMENT AND EMPOWERMENT IN WEST NILE, UGANDA 2020-2022

Project Objectives

To contribute to improved quality of life of youth through increased decent employment opportunities and agency

To strengthen the capacities of USSIA and TUNADO towards economic empowerment and youth voice in Arua, Nebbiand Zombo

To provide 1000 youth aged 18-30 years with an opportunity to gain a skill and experience in a profitable trade through their placement in existing local businesses to train and initiate the selected youth in the world of work and business.

Trades

- Apiculture
- Leather and crafts



- Leisure and hospitality
- Metal fabrication
- Motorcycle repair
- Tailoring
- Carpentry
- Bakery
- Plumbing

Achievements

Outcome	Target	Realization
# of youth enrolled on apprenticeship scheme	1000	1000
Female enrolment	40%	42%
# of enterprises hosting youth	67	67
# of youth acquiring DIT non formal modular certificates	600	530
# of youth retained by enterprises	67	78
# of youth in waged employment	0	408
# of youth supported with start up kits	50	50
# of youth in self employment	0	213
# youth participating in advocacy activities	36	300

Recommendations

- Skilling programmes should work with MBOs since they have a mechanism to recruit the trained youth and sustain service provision.
- Based on demand and achievements, replicating the project nationwide.
- Government could use both TVET institutions and accredited MBOs with mobile learning centres that fit into local context to absorb youth with no formal education.



Youth Voices

"I was a drug addict but receiving training helped me change my ways of life and now I easily find money to cover my needs instead of resorting to drugs"

Daniel Rwothomio, KII in Zombo District, Feb 2023



"Following completion of my plumbing training and acquisition of the DIT, I used the certificate to apply for a plumbing job with a construction company in Zombo which I was given. Since joining the company, I have worked on a number of construction projects both in Uganda and Congo in the plumbing section."

Munguacel Denis in Zombo District, Feb 2023

FRANCIS, THE BLIND BEEKEEPER IN GULU DISTRICT



The Apiary of Mr. Oloya Francis Okello in Pabbo, Amuru District.

The beautiful lush green gardens of pigeon peas stood upright, forming a guard of honor on either side of the road, swinging gracefully from left to right at the command of the wind. We trekked on the fairly wide marram road for about 400 meters from the point where we had left our motor vehicle. In a fairly smart structure of corrugated Iron sheets, mud and wattle was a school, as evidenced by the sweet sound of little children dancing and playing in the compound. The Children were undergoing training by a local female trainer on how to perform the *larakaraka* Dance, a traditional dance of the Acholi. What an interesting sight! Moving opposite this school through a garden of millet for distance of approximately 70 meters, we ended up at a forest of *Pinus caribaea* (Brazilian pine), gracefully whistling with the help of its needles as the wind swept through them.

In these Pine trees were 45 locally made beehives made out of the elephant palm (locally known as 'Tugu' in Luo). The set-up of the apiary was visibly unique in that unlike other apiaries I had visited, this one had peculiar brightly coloured nylon strings tightened along the hives on the periphery and with visible knots at certain points, approximately 2 meters from each hive. Clad in a white shirt and pair of grey trousers and firmly holding onto a white cane, **Okello Francis Oloya** walked up to us, guided by his cane in one hand and a helper in the other. 'Don't make noise or else you will annoy the bees and they will attack us' he told us in clear audible English. We decided to move back near the road, having inspected the hives and made a tour of the apiary so that we have a more detailed conversation with the beekeeper.

"My name is Okello Francis Oloya' and I am 33 years old. I am person with visual impairment but that has not deterred me from practicing beekeeping. I am graduate of Industrial and organizational Psychology from Makerere



Mr. Oloya Francis Okello (right in Black jacket) telling his beekeeping story to OXFAM consortium partners during the field visit on 5th/Oct/2022 in Pabbo, Amuru District.

University. Having finished my education, I looked for jobs but due to my condition of visual disability, it was difficult for me to get employment. With the exposure I have, I had heard of beekeeping and how it can transform lives. I therefore decided to venture into beekeeping in 2014. I started with *Tugu* hives since they are less costly i.e. 20,000/- per hive. In 2019, I was one time seated at home when I heard the sound of a motorcycle stopping at my home. Mr. Okuga Ezekiel (TUNADO Staff) greeted me and told me about an opportunity to be skilled further in beekeeping. He had been trained on how to handle beekeeping for the deaf and blind people. I accepted his offer and he has helped me a lot through the technical skills and guidance. He helped set up the apiary in a better way and he taught me how to inspect. I follow that brightly colored yellow string to inspect the hives, where I find a knot, I know that there is a hive and as such, I move with care. TUNADO assisted me with a bee suit, a smoker, gloves and 3 airtight buckets. I currently have 21 hives of which 2 are Kenya Top Bar Hives (KTB) while the rest are *Tugu* hives. I have been harvesting and selling the honey. I am respected in the community and in addition to that, I also teach people beekeeping. I have taught over 5 of them; and 2 of my neighbors have established apiaries as result of being inspired and trained by myself.

I opened the school as part of the curriculum and inspiration to the little children, the teachers tell them about beekeeping and how it is beneficial both financially and also friendly to the environment. In fact, the children already know that with my blindness, I own an apiary and I am earning from it and as such, most of them are encouraged and they tell me that one day, they will start beekeeping when they grow up.

I thank TUNADO for supporting us with beekeeping and I pray that you keep this up. That is my story”.

Compiled by Amena Dennis,
Training & Business Advisor(T.B.A),
TUNADO.

ONEKA ROBERT, THE BUDDING PROCESSOR

My name is Oneka Robert, 33 years old and I hail from Bungatira sub-county in Gulu district. I am a married man with 3 children and I have an Ordinary Diploma in Water Engineering. I am passionate about beekeeping despite being a plumber by profession and as such, my passion resulted in establishing an apiary at home in Bungatira. I now have a total of **85 hives and 71 colonies**. Most of the hives are *Tugu* hives (elephant palm hives).

In 2020, TUNADO came to me through a friend and introduced me to modern beekeeping. Mr. Ezekiel (TUNADO Staff) has been close to me and has taught me many aspects of modern beekeeping. He sited my apiary in the village and spent a whole day on the farm, he helped me correct the siting of the hives, taught me how to clean the apiary and also give supplementally water to the bees so that they do not have to move long distances to fetch it (by putting water in a cut jerrican and dropping sticks to provide a landing for the bees).

Furthermore, I realized that more money in beekeeping can be realized when you add value to the honey instead of selling comb honey. This made me request TUNADO to train me in how to process and pack honey. To my surprise, TUNADO staff (Ezekiel Okuga and Phionah Birungi) did not only stop at teaching me how to strain honey using a honey press and Mussolini cloth, but also took me through how to add value to beeswax in order to make beeswax Jelly. I now pack honey and Beeswax jelly (he points to a corner full of branded products). My hive products are on demand and I supply mainly offices here in Gulu city but some individuals also come here to buy from home. TUNADO also trained me how to make a business plan for hive products so that I predict and plan the performance of my business for sustainability. I am so happy because I have an extra source of income and since my wife is a stay home, she is really fully engaged in this business and I give her the necessary support. I thank TUNADO for extending the support.

Before I conclude, I would like to add that TUNADO extended to me a loan through their Apiculture Business Fund where I acquired processing equipment worth 3,250,000/- and I am now servicing it. This loan was given to me at a very friendly interest rate. Thank you all and that is my story.”

Compiled by Amena Dennis,
Training & Business Advisor (T.B.A),
TUNADO.

“ *My hive products are on demand and I supply mainly offices here in Gulu town but some individuals also come here to buy from home.* ”

BEEKEEPING HAS TAKEN ME TO PLACES, JIMMY ODONGO'S STORY

The buzzing sound of busy bees could be heard from as far as 30 meters way from the Apiary. With an iron nail to keep it firmly in position was a wooden signpost that was clearly telling us a message: 'NO TREES, NO BEES, NO HONEY!'

Odong Jimmy is responsible for the message above and the buzzing of the busy bees in his apiary. Currently 34 years of age, Jimmy started beekeeping when he was still small in 2012, with 5 Kenya Top Bar (KTB) hives bought using his salary. The reason for buying the hives was majorly to boost his incomes through beekeeping. "TUNADO gave me additional technical knowledge through their field staff Ezekiel Okuga, Aaron and Dennis Amena who also taught me GALS i.e Gender Action Learning Systems. This helped me embrace working with my wife. In 2020, I was voted the best young beekeeper in an apiary enterprise competition and received equipment worth 500,000/- Uganda shillings. I was honoured and given appreciation by TUNADO BOD members, Ministry of Agriculture (MAAIF) senior staff and staff of TUNADO. This gave me a lot of morale and encouragement to love beekeeping even more. People come to learn from me. Furthermore, I was given a contract by TUNADO to translate audio extension materials for the blind from English into Acholi language. Government usually comes to visit me and they use my apiary as



Mr. Odong Jimmy(right in stripped white T-shirt) explaining to Oxfam consortium members the role of Calliandra as bee forage

a referral that beekeeping can be done successfully by youth. In additional, I have been encouraged to maintain and conserve the environment by maintaining the indigenous trees on my land that provide shade and food for the bees. I have also learnt, from TUNADO technical staff, ways of increasing forage for my bees by planting shrubs such as *Calliandra callorthisus*.

I now have 45 hives with 35 Colonies and I have bought a motorcycle from the sale of honey. I pay school fees for my daughter in S.1, Son in P.6 and

others who are in lower classes. I have got a lot of exposure including being visited by a consortium of Oxfam partners recently, travels to distant places such as Arua and Karamoja as contract trainer which has also added some money into my pockets. I thank TUNADO and OXFAM that have continued to support us with technical knowledge through their staff. My prayer is that you keep this up. "

Compiled by Amena Dennis,
Training & Business Advisor(T.B.A),
TUNADO.



Mr. Odong Jimmy explaining to OXFAM consortium members the importance of a cashew nut forage tree to his bees in Ogul, Paicho, Gulu District



The famous signpost at Odongo Jimmy's Apiary. It Speaks for itself



Joseph pauses for a photo with Odongo Jimmy inside Jimmy's Apiary



ABOVE

Consortium Members visiting **Letasi** at her home & processing place in Layibi, Gulu City.

RIGHT

Consortium Members pause for a group photo with a blind beekeeper (**Mr. Kibwota Francis, middle in white shirt buttoned to the collar**) in front of Francis' apiary in Lamogi, Amuru District.



API Price Watch

MULTI PURPOSE BEE FORAGE		
Item	Unit Price In Ugx. this price is exclusive of transportation	Source
Grafted Integrifolia macadamia (Muranga 20)	18,000	World of Bees Ug Ltd Kiira House Pilkington road Kampala contact details 0778371891
Cashew Nut Seedling	5,000	Alcode - Lira
Grafted Mango Seedling	4,000	West Nile foresters - Arua
Budded Oranges Seedling	4,000	West Nile foresters - Arua
Paw Paw Seedling	2,000	West Nile foresters - Arua
Caliandra	500	West Nile foresters - Arua



TUNADO

THE UGANDA NATIONAL APICULTURE DEVELOPMENT ORGANISATION

A membership & apex body for coordinating apiculture sector in Uganda

Vision

A vibrant membership based apex body coordinating apiculture industry in Uganda for sustainable national development

Mission Statement

To provide a national platform for apiculture sector growth through, capacity building, lobbying and advocacy market development, product diversification and information sharing.

Mandate

A national apex body that coordinates initiatives of stakeholders in the apiculture industry.

TUNADO Philosophy

Apiculture is business

Organizational Values

- Membership centered
- Accountability
- Innovativeness
- Inclusivity
- Voluntarism

OBJECTIVES

- To bring together all people involved in the Beekeeping industry into active and gainful commercial production of honey especially for the rural poor.
- To contribute to policy formulation and implementation processes pertaining to the apiculture industry in Uganda.
- To protect the National bee colonies from diseases, infections infestations, and interferences of a harmful nature of whatever manner, so as to maintain the productive quality of the indigenous bee species.
- To conduct research and disseminate knowledge pertaining to the apiculture industry in Uganda.
- To liaise with Uganda National Bureau of Standards, Uganda National Bureau of Statistics and any other body to monitor quality, standards and statistics of bee products.
- To collaborate with any other Beekeeping related organizations and firms all over the world hence, soliciting for local, regional and international markets for hive products.

Membership

TUNADO is a membership and national apex body mandated by the Government through the Ministry of Agriculture Animal industry and fisheries (MAAIF) to coordinate the apiculture sector in Uganda. Currently its membership is open to individuals, Institutions, Non- Government Organization, Companies and associations or other persons involved in Apiculture development in Uganda. This membership is renewed annually and is based on the following categories:-

Category	Membership Fee (UGX)	Annual Subscription
Associations, Processors Corporate membership	100,000/=	200,000/=
Registered Groups/CBOs	100,000/=	100,000/=
Individual Membership	100,000/=	50,000/=
Honorary Membership	FREE	FREE

Support a bee keeper

Did you know that 50 USD can train a vulnerable woman in beekeeping?

Donate now through the TUNADO account number;

Account Name : The Uganda National Apiculture Development Organization Limited.

Account number : 95010200001852

Bank : Bank of Baroda, Kampala Rd.

Swift code : BARBUGKA

More information, www.tunadobees.org

In proud partnership with;

