



API News

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Issue XVIII

A publication of The Uganda National Apiculture Development Organization (TUNADO)

A Membership & Apex Body for
Coordinating Apiculture Sector in Uganda



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8th NATIONAL HONEY WEEK

Theme: "Bee Friendly Farming"

No.	Category	Related costs of entry
1	General public	Free
2	Exhibition Space	Members Single stall: Ugx. 180,000 Double stall: Ugx. 360,000 Non-members & Sponsored exhibitors Single stall: Ugx. 400,000 Double Stall: Ugx. 700,000
3	Poster/Pictorial presentation on "Bees & Pollination"	Ugx. 3,000 per person
4	Pollination poem competitions for scholars	free
5	Honey week trainings	Ugx. 10,000 per person per training
6	"Pollination Fedge"	Ugx. 10,000 for individuals and Ugx. 30,000 for companies or organisations



Date: 21st - 26th August, 2017 Venue: Forest Mall

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Editorial Message

The rain season that was expected to begin in September last year in most parts of the country started quite late in mid-October 2016 and ended well before Christmas. Since then the country has undergone a biting dry spell that has destroyed crops, pasture and of course nectar source for the bees. Majority of farmers face tough times ahead and most significantly, the country faces severe food shortage. The fact is that until farmers are empowered and enabled to create lasting solutions, the story of our future will remain uncertain. We all know this is a subject of a rather long and big debate, and there are millions of opinions to it. So, we want to put emphasis only on our bit: the apiculture industry (beekeeping).

Our mandate as TUNADO is to coordinate initiatives of stakeholders in the apiculture industry. This gives us more reason to worry about the sector we represent.

In this Issue of Api Newsletter, we bring you information on how to become a Board member of TUNADO 2017 being an elective year, the proceedings of the End of year National MSP, Second Apiculture Business forum in Uganda, work done with development partners, Findings of "Lessons from the field"-a study by African Beekeepers Resource Centre (ABRC), taking care of your bees in the dry spell, current prices of beekeeping equipment in the Api Price watch and the importance of Royal Jelly as an anti-aging ingredient for your skin in our honey and health section.

We are obliged to nurture our members' into doing beekeeping as a business and are thankful to all our development partners who make it possible through their support to the sector and this publication.

Enjoy your read!!!!

Wishing you a Fruitful New year 2017!

Sarah A. Mugoya
Editor

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CHAIRMAN Board of Director's MESSAGE

Board of Directors Elections April 2017

2017 is a year of change in TUNADO with an election of new board of directors that will serve you for the next five years 2017-2022. It is my pleasure to inform you of the available vacancies and the role of the board of directors.

TUNADO articles and memorandum of association clearly spells out that the tenure of the BOD shall be five years from the date of their assumption of office and a director shall serve for a maximum of two consecutive terms.

The TUNADO BOD composition

The BOD will be composed of 10 members; Seven (7) regional directors (South Western, Mid-Western, North, Central, West Nile, Mid North and Eastern), two processors/corporates, one (1) from the pool of civil society/Academia/Government/Private sector as agreed by the BOD. The ED is the ex-officio to the BOD and a member can always be co-opted to be a BOD member from a pool of government, consumers/market, BDS/ enablers, academia as the need arises for a period of one year. From the constituted members of the BOD, interested persons among the elected constituted members will contest for the office of the chairperson and vice chairperson. On the first sitting of the BOD, members will elect the secretary. The chairperson, the vice chairperson and the secretary shall form the national executive committee (NEC). The NEC shall sit whenever there is a need while the entire BOD shall sit quarterly.

Qualification to become a director of TUNADO

- 1) For a person to be elected as a director of TUNADO, such a person must be a delegate to the general assembly at the time of elections of directors and **MUST** be corporate or representing a chapter member
- 2) The person must be representing a fully paid up member of TUNADO
- 3) For a person to qualify for a position of chairperson and vice chairperson

should be with equivalent of a diploma from a recognised institution while for the rest of the directors' positions, such a person should be able to read and write.

Highlight of some of the skills and experiences members can look for in those contesting to be Board Directors

ACTIVITY	Understanding	EXPERIENCE
Organization administration (getting things in order)		
Advocacy and campaigning (telling people about issues to bring change)		
Diversity and inclusion (promoting equality of opportunities)		
Financial (putting in place mechanisms for proper finance planning and administration systems)		
Fundraising and resource mobilisation (looking for opportunities to raise money for the organisation)		
General organization strategic planning (thinking about the picture and how to achieve TUNADO's mission and vision)		
Governance (the system and process to ensure the organization is run effectively)		
Knowledge of the beekeeping sector		
Human resources / making sure that everyone meets their potential and sharing your skills with others		
Information technology (using computers, websites, emails, etc.)		
Interpreting the rules and making sure they are applied (TUNADO's constitution & operational documents)		
Management style (getting things and people organized)		
Developing frame work for enhanced production, quality control and Marketing		
Media and public relations (using the media to ensure the public views TUNADO positively)		
Networking (talking to and working with other agencies)		
Policy implementation (ensuring that things run smoothly and practical solutions are in place)		
Research (finding out more about the sector and what suites it)		
Systems (procedures and rules to ensure that things are done)		

EXECUTIVE DIRECTOR'S MESSAGE

It gives me pleasure to welcome all of us to a new year. I am happy and proud of working for the beekeeping family. Making a 10 year flash back when I joined TUNADO as board member and eventually as the Executive Director in 2011, it gives me confidence that the future is bright for apiculture sector players-Thanks to TUNADO BOD members for the effective leadership, members for the commitment and development partners for the support.

I remember of a time when there were about 10 companies packing branded honey on the Ugandan market where by packing and bringing honey to the market was viewed as a great innovation. As time went on, the number of people packing and branding honey increased to over 71 by 2014 which made Ugandan honey dominate the market share by 85% as opposed to 15% market share in 2003. 10 years ago, it was not worth mentioning that one is a beekeeper or is employed in beekeeping. Today there is a high growing interest among the women and youth, both educated and uneducated venturing and wishing to join beekeeping. Beekeeping is increasingly becoming lucrative in-terms of income generation, employment creation and increasing crop productivity because of the pollination services bees offer. Unlike the past where bees were only seen for honey production and stings, to-date a number of bee products have emerged including but not limited to propolis, beeswax, pollen and bee venom.

However, as the sector continues to grow, it comes with challenges that require a concerted effort by all actors if a practical solution is to be reached. Examples of sector challenges:-

1) Ugandans are becoming more conscious about the quality of products they take especially the middle class and therefore demand for certified products by competent Authority (UNBS) comes in and yet the bureaucracy and cost for one to secure certification is high

- 2) Seasonality of bee products require Ugandan SMEs in apiculture business to have adequate funds to pay cash during the harvesting season. Unfortunately this is not the case, what is happening is that traders from neighbouring countries come in and offer cash with an extra coin and the beekeepers become excited forgetting the Ugandan SMEs that invested time in skilling them to produce. Where attempts have been made for SMEs to access the credit to boost their working capital, interest rates are extremely high and requirements to access the credit are not possible.
- 3) Misuse of agriculture chemicals especially during spraying claim many bees reducing on the number of colonies.
- 4) Limited skills among the actors in apiary management, product development, value addition, entrepreneurship and marketing affect the cherished sector development. A few experts that are there are extremely expensive
- 5) Apiculture data is extremely scanty. For any agriculture sub-sector to attract investment, production and market data is paramount.
- 6) The actors are small scale in nature, highly informal and at beekeepers level the beekeepers are scattered making business hard.

Having said the above challenges among the many, TUNADO with support from all of us wish to advance the following in 2017:-

1. Facilitate the process of our members to have their products certified by UNBS
2. Empower TUNADO members to access apiculture credit in HOFOKAM and Centenary Bank (thanks to Trias and Oxfam for supporting this initiative)
3. Operationalise TUNADO business wing (World of Bees Ltd). This will act as one stop trade centre for bee products, equipment and services and will run independently
4. Lobby partners in and those supporting agriculture sector on



**Mr. Biryomumaisho Dickson,
ED - TUNADO**

“... the number of people packing and branding honey increased to over 71 by 2014 which made Ugandan honey dominate the market share by 85% as opposed to 15% market share in 2003.”

proper use of chemicals especially those that are very dangerous to bees.

5. Skilling youth and women is top on agenda while integrating entrepreneurship training using access to market handbook and work book that has been recently launched for use in Uganda (It was developed by Syntra West –Belgium in partnership with Trias, USSIA and TUNADO)
6. TUNADO will embark on collection and analysis of production and market data.
7. TUNADO will scale beekeeper to beekeeper extension model that involves beekeepers to train others while allowing collection centres and trading hubs that link beekeepers bee products to high end buyers.

We shall keep you our readers up to date in next issues.

TUNADO ORGANISED END OF YEAR NATIONAL MSP

On 8th December 2016, TUNADO organized and conducted the End of year multi-stakeholders platform (MSP) at the Uganda National Farmers Federation Hall, Nakasero. The MSP was convened to provide stakeholders a platform to give their input on how to review and develop an all-inclusive TUNADO strategic plan 2017-2021, and to provide information on the forth coming 2017 board elections.

The MSP set 2017 sector priorities as follows;

- Prepare TUNADO members to utilize the credit facility in HOFOKAM and Centenary Bank
- Train more ToTs and use of visual aids to reach more youth
- Run a sensitization campaign of bees as pollinating agents
- TUNADO should make use of a GPS and GIS when capturing field data and locating beekeepers across the country
- Emphasize quality assurance of bee products right from production to brands already on the market.
- Develop strategy to improve

colonisation

- Enrichment planting and forage conservation
- Widen the MSP to include more stakeholders
- Work closely with Local Government especially district entomologists and other extension service providers

The participants in the MSP generated a list of Apiculture stakeholders and prioritized (UCDA, NOGAMU, NEMA & Parliamentary committee on Agriculture) to present to the next MSP on their intervention strategy conserve bees and their habitat

Stakeholders agreed that the strategic plan 2012-2017 should be reviewed, suggested what should be included in the reviewed strategic plan and how the process should be done. **More on this article can be found in the End of year MSP Report on <http://tunadobees.org/uploads/End%20of%20year%20MSP%20Report.pdf>**

By Sarah Mugoya
Communications Officer, TUNADO

Pictorial



PM TUNADO presenting progress made on the sector priority areas for 2016



Counsel Immaculate interpretes TUNADO's articles for members regarding BoD election procedure



How to manage Honeybees during a Dry Period

By Dr. Patrice Kasangaki,
National Livestock Resources Research Institute (NaLIRRI)

Honeybees are a very important component of the ecosystem, providing services and highly valuable products. The products provided by honeybees range from food, medicine, cosmetics to art while the services include pollination of agricultural and wild plants and indicators of environmental health. Bees have been hunted for their products and after man realized their importance, he started to keep them in cavities called beehives which mimic their natural habitats. However, the value of bees as service providers remains ignored despite their being critical to agricultural livelihood sources and ecosystem functioning.

Proper management of bees during dry season starts with apiary site selection. One should consider the following when selecting a site for a good apiary which will not be affected by weather conditions:

- There should be a nearby source of water
- There should be enough trees to serve as wind breaks. High wind speed causes reduction in flight and also distorts the flight direction thus reducing foraging activity.
- Keep beehives under tree shade or artificial structures constructed to provide shade.
- Site the apiary near a place with plants that yield pollen and nectar for the bees.



In addition, the following can be done to sustain the bees during dry season:

- **Control swarming and absconding:** Swarming can take place anytime of the season and when it happens when the colony is weak; it may lead to the collapse of the colony. Absconding on the other hand is a situation where by the entire colony abandons the hive to look for another hive Regular inspection helps in identifying colonies which are preparing to swarm and also identify conditions which may lead to absconding and appropriate control measures taken.
- **Do artificial feeding:** To sustain bees during the dry period when natural sources of nectar and pollen are scarce, bees can be fed on sugar syrup or sugar dough. (this should be tried only in very difficult situation)
- **Provide drinking water:** Fresh and clean

water within a short distance of an apiary is essential.

- **Unite weak bee colonies:** It is advisable that two or three of weak colonies be united to make one strong colony which can forage effectively and resist pest and disease attack. In this case, only one queen is retained.
- **Provide shade:** When it is very hot and there are no sufficient tree shades, the colonies can be covered with grass or papyrus mats to reduce the effects of heat.
- **Keep the apiary clean:** To avoid losing your colonies to wild fire, make sure that you keep your apiary clean and without dry grass.
- **Pest and disease control:** During dry periods most honeybee colonies are always weak due to insufficient forage and water supply. Weak colonies are easily attacked by pests and diseases. Pests like lizards, rats escape from fires to hide in

hives during the dry seasons and need to be controlled through installing rat guards and suspending beehives on wires.

- **Apiary inspection:** Regularly inspect your apiary. This is important because it will help you identify any problem within the apiary and appropriate remedies made accordingly. Apiary inspection will help you find out whether there is need for any of the above mentioned.

Finally, you have to plant crops and trees that yield good pollen and nectar (bee forage). Plants which are good source of nectar include Tamarind, Moringa, Neem, Eucalyptus and Bottle brush while plants which are good source of pollen are Sorghum, Sweet potato, Millet, Coconut, Roses, Castor, Pomegranate and Date palm. Plants which are good source of both pollen and nectar are Banana, Peach, Citrus, Guava, Apple, Sunflower, Berries, Pear, Mango, and Plum among others.

The 2nd Apiculture Business Forum

On November 17th - 18th, The Uganda National Apiculture Development Organisation (TUNADO) conducted the 2nd Uganda's Apiculture Business Forum in partnership with Trias Uganda at Equatorial Mall. The Business Forum attracted 100 participants. Objectives of the forum were:

- To equip sector players with necessary knowledge and skills to improve and grow towards a more formal, sustainable and

business oriented enterprises specifically through;

- Provision of tips for apiculture enterprise formalisation process
- Business visioning and planning
- Unlocking business opportunities up for harnessing in the apiculture sector
- Coaching and mentoring honey value chain actors in business positioning
- Case presentations on how MBO can work with financials for members to access credit

Mr. Biryomumaisho Dickson, TUNADO Executive Director gave an overview of what triggered TUNADO to start conducting business forums. Some of which were;

... 80% of the businesses (groups, CBOs and others) are "informal" ...

PICTORIAL OF THE FORUM



Group Picture of the 2nd Apiculture Business forum participants and some of the presenters.

- To increase the business acumen of the honey value chain actors; including the beekeepers, processors and traders.
- In Uganda, 80% of the businesses (groups, CBOs and others) are “informal” in that they are either not registered, don’t have the right documentation, no records are kept, no bank accounts or are acting legally.
- To provide information on where and how to access services available to the different actors in the apiculture chains.

A number of presentations were made, most notable being; Available Incentives for Investors in Uganda by Uganda Investment Authority, Business registration by Uganda Registration Services Bureau, Business formalization & Compliance by Uganda Revenue Authority, Buy Uganda Build Uganda strategy by Ministry of Trade Industry & Cooperatives, Which support does UEPB offer processors to export their bee products by Uganda Export Promotion Board, MADFA – MADFA SACCO business case, Lessons learnt from lending to apiculture value chain actors by Centenary Bank. For details,

<http://tunadobees.org/uploads/Business%20Forum%20Report%202016.pdf>

By Sarah Mugoya
Communications Officer,
TUNADO

Enabling Synergies between Organised and Enterprising People (ES-OEP) 2014-2016

TUNADO entered into a partnership with Trias in 2014 to implement a Belgian directorate of general development (DGD) funded programme, ES-OEP in Bunyoro region Uganda and West Nile. The long term objective of the programme was to see a sustainable TUNADO (MBO) as an active apiculture actor in society, empowering their members personally and professionally, especially poor people, women and young people, improving members’ market participation and contributing to a more inclusive global society.

More specifically TUNADO was expected to contribute to four result areas

Result 1: Empower poor; women and youth to pro-actively participate in their own MBOs or in democratic open and mixed MBOs, acting towards a more inclusive society.

Before the ES-OEP programme inception, women and youth participation in sector related activities was very minimal (youth 8% women 15%). This was attributed to the existing societal stereotypes on what women should and shouldn’t do, as well as women’s reproductive roles that have been major hindrances to their active participation in the sector. In the programme life time, deliberate efforts were made to increase women & youth involvement e.g. under the farmer led extension model, 6 out of the 10 trainees at an established learning centre were women and youth. This increased women and youth involvement in the programme area to 36% and 54% by the end of 2016.

Result 2: TUNADO has effectively improved their internal organisation and organisational sustainability

The programme facilitated the process of establishing the TUNADO business wing, which was later registered in the names “World of Bees (U) Ltd”. This will act as a marketing agency for members’ products as well as generate income for the organisation.

Trias with MIVA supported TUNADO to purchase a pick up Toyota Hilux to enable the organization reach her members across the country.

The ES-OEP programme facilitated the establishment of the first TUNADO regional office in west Nile, Arua district. The office has been reinforced with two full time staff to improve service delivery and monitoring.

During the programme TUNADO registered a reasonable increase in her membership from 215 Associations and Companies in 2014 to 266 in 2016. This raised TUNADO’s internally generated income from membership and annual subscriptions by 20% per annum and paid for activities such as honey week rose by 11% from 2014 and business forum. All this have contributed to and improved TUNADO’s financial health

Result 3: TUNADO and her strategic public and private partners facilitate integrated quality services to ensure better participation in markets, especially for poor people, women and young people.

Unlike in the past where beekeepers depended on donated hives to establish apiaries, the ES-OEP programme made it possible for TUNADO to implement the farmer led extension model (which relies on beekeepers training fellow beekeepers using learning centre. TUNADO is happy to inform you that this model has been improved to be called the **Beekeeper to Beekeeper extension model (B2B extension model)**. This involves establishment of trading hubs managed by hub coordinators, who then form learning centers within their trading hubs and select 10-15 Community Based Beekeeper Mentors (CBBMs) to receive trainings directly from the learning centers. After receiving training each of the ten CBBMs trains 4 other beekeepers at his apiary as the learning centre. This has enabled more beekeepers to gain skills in beekeeping practices and as a result 1,216 beekeepers have established their own apiaries (average of 15 beehives per apiary) of locally made traditional bee hives equivalent to €123,243.

The programme facilitated the process of developing the first apiculture loan and set aside a fund to provide affordable credit for beekeepers. This was done through Hofokam-a micro finance institution operating in Mid and South-Western Uganda. Sofas, 100 beekeepers in the two regions have been linked to Hofokam.

The programme facilitated capacity building along the honey value chain e.g. the acquired skills in quality assurance resulted into improved bee products with a guaranteed market.

Result 4: MBOs join in coordination, dialogue and collaboration with other actors towards a more inclusive global society

The programme emphasised collaborations with different actors in the North and South for sector development. As a result, TUNADO was able to attract



new partners including Syntra West with whom an entrepreneurship training manual “access to markets handbook and workbook” as a tool to stimulate and transform value chain actors from traditional beekeeping to doing beekeeping as a business.

The programme cemented the relationship between TUNADO and other national membership organisations such as UNFFE& USSIA but also local governments and district farmer associations such as HODFA, MADFA, ARUDIFA and ZODFA. Big thanks to Trias

Uganda, Trias Belgium and Belgian directorate of general development (DGD) for the financial and technical support.

By Bomujuni Allon
Membership Development Officer, TUNADO

MY JOURNEY INTO BEEKEEPING; Atuhura Frank an ESOEP Beneficiary Shares his Experience

My name is Atuhura Godfrey Frank; I operate a small business in Buliisa town. At the onset of my youthful stage I used to see my mother doing beekeeping at home but wasn't interested in the enterprise because I used to see it as an activity that was not suitable for youth like me but also didn't think it would bring me quick money. It was in early 2013 when my business had started downsizing as a result of debtors which made me think twice on what I would do to improve it. In April 2014, my mother received visitors from the TUNADO who were conducting a needs assessment for beekeepers in Biiso sub county in which my mother and other female colleagues represented Biiso United Beekeepers Association (BUBA) after two weeks my mother received a call from TUNADO informing her that BUBA was among the groups chosen to benefit from the ES-OEP programme, a Trias funded programme whose objective was to promote women and youth entrepreneurs. After listening to the good news from my mother, I thought twice on how I would benefit from the project but still with a negative perception towards beekeeping. Soon the project activities started one of them being an exposure visit to Bushenyi connoisseur honeys cooperative where two representatives from BUBA were needed, unfortunately my mother was sick and she couldn't participate thus requesting me to represent her in the exposure. While there, I realised it was a blessing in disguise after seeing what beekeepers in Bushenyi earn from their enterprises. This was my turning point to join beekeeping.

After the exposure, I returned home to help my mum improve her apiary but also start mine. With the help of TUNADO I was recruited in the group and took up the coordination role of the programme under BUBA. TUNADO helped me start up my own apiary with only 15 hives in 2014, I and my group members went on to receive more trainings including hive making, making Bee suits, colonisation, harvesting and

post-harvest handling, group governance and record keeping.

Achievements

- Since 2014 with 15 hives, I now have 57 fully colonised hives
- Group hives have also increased from 40 hives to 257 currently and members are still making more
- Honey production has also increased from 5 jerrycans to 30 jerrycans as per the previous harvest
- In terms of market access, we used to sell the little honey harvested individually and it would take us long to sell but after training in bulking and collective marketing, we now bulk and sell as a group and there is enough market, some of the group members also process pack and sell branded honey
- I am not crying for jobs because am self-employed doing beekeeping as a business
- In 2015, After attending all the trainings under the farmer led extension model where I was expected to train three other beekeepers, TUNADO inspected me and my trainees and later approved me to attend a ToT in beekeeping and I am now a certified trainer of trainees under Ministry of Agriculture and this has earned me more money.
- Together with my group we have started a small saving scheme where we each pay 5000 – 50,000 UGX per month.

My future plans now that my home apiary is full to capacity, I have bought some land in the neighborhood where I am planning to set up more apiaries specifically for harvesting bee venom and other products such as propolis

I attended the three national honey weeks where I learnt to make honey wine and I am planning to go for more training which will enable me establish my own winery.

I also wish to create more learning centres in our sub county but also popularise beekeeping to the youth.

And as an association, we are planning to grow and register as a cooperative

Looking back on the perception I had towards beekeeping as a youth, am sure most of the youth crying of an employment are misguided and I encourage them to join beekeeping which is a low cost business investment, not time consuming and with a variety of activities they can engage in and make a living out of it such as making harvesting gears, hives, smokers all for sell, offering harvesting as a service, and also earn from processing and selling honey

I can say that as an individual I am so grateful to Trias the funders of the ES-OEP programme for it was timely, thanks to TUNADO for job well done in coordinating the apiculture sector and mostly selecting BUBA to be among the project beneficiaries and request for an extension to enable me reach out to the unemployed youth and popularise beekeeping.



Atuhura Frank in his Apiary

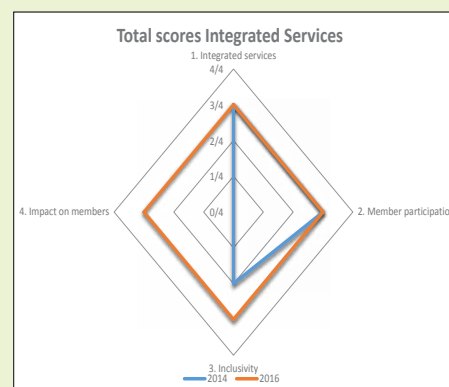


Frank shows off his finished product

TRIAS CONDUCTED A TUNADO MEMBERSHIP SATISFACTION SURVEY

50 TUNADO members from all the 7 regions of Uganda convened at Uganda National Farmers' Federation on 28th November 2016. The aim of the meeting was to assess TUNADO performance in the four areas of quality of services provided to members, member participation, youth & women participation, and impact of TUNADO work on members' businesses. Members ranked TUNADO as follows;

	Total scores Member Satisfaction	2014	2016
1.	Integrated services	3/4	3/4
2.	Member participation	3/4	3/4
3.	Inclusivity	2/4	3/4
4.	Impact on members	0/4	3/4
	Total scores Member Satisfaction	3/4	3/4



By Phionah Birungi
Programme Manager, TUNADO

BEEKEEPING GAINING POPULARITY IN LUWERO AND NAKASEKE

TUNADO entered into a Memorandum of Understanding with Swisscontact Uganda from April to December 2016 to implement a business case in the districts of Luwero and Nakaseke. The two districts, faced unique challenges in beekeeping which included;

1) **Inadequate technical capacities in apiary management:** Most beekeepers lacked skills and knowledge on apiary management, post-harvest handling and processing. Additionally majority had poor entrepreneurship skills and limited appreciation of group dynamics with a high level of individualistic tendencies.

2) **Scattered beekeepers and low volumes of bee products:** Beekeepers were not consolidating bee products from small yields to reach distant, high-value markets. This consolidation could only be achieved through the establishment of collection centres, trading-hubs or associations (in different forms).

3) **Low quality bee products:** beekeepers in the target areas were producing low quality honey which could not access high-end buyers.

4) **Product diversification:** in Nakaseke and Luwero, honey was the only harvested and marketed bee product.

5) **Access to financial services:** Most buyers had limited working capital to buy large volumes of honey through cash payment. This would affect the demand and supply chain of honey and other bee products right from community to high-end and final buyers.



Members of katuugo progressive in a training in hive making



Training in harvesting for katuugo progressive in Luwero

The business case therefore aimed at enhancing technical capacities of beekeepers as well as improving market for bee products. To achieve the above, market pull approach and beekeeper to beekeeper extension model with five (5) innovations were applied i.e. promotion of bulking & collective marketing, capacity building along the honey value chain using a beekeeper to train other beekeepers, product processing & promotion of bee products diversification, access to finance and creating an enabling environment for beekeeping business to thrive.

As a result;

- 444 beekeepers (150 women) were mobilised into 15 learning centres and 8 trading hubs
- 60 women are now active in their respective hubs
- 148 beekeepers volunteered to be

community based beekeeper mentors (CBBMs) and trained on how to train others using beekeeper to beekeeper extension (B2BE) model

- 53 women established individual apiaries with an average of 10 beehives per woman
- 843 hives were made, 724 hives sited and 374 hives reported colonized
- Beekeepers adopted planting forage within and around the apiary. Every established apiary has deliberately planted forage nearby
- 8 groups that were previously disintegrated regrouped and have a clear leadership structure
- 512kg of honey, 50kg of beeswax and 9kg of crude propolis were bulked and sold to national buyers.

By Phionah Birungi
Programme Manager, TUNADO

THE HUNGER PROJECT

The Hunger Project is one of TUNADO's partners who has been an ardent sponsor of the National Honey week events. Dr. Daisy Owomugasho, Country Director spoke to the Communications Officer(CO), TUNADO on 11th January 2017 about what the Hunger Project is, how it works and its involvement in supporting the National Honey week events and farmers to participate in the event.

Communications Officer: Dr. Daisy, Please tell me about what THE HUNGER PROJECT is and what it does.

Dr. Daisy: The Hunger Project is a global movement of people working in authentic partnership for the sustainable end of hunger. It has a MoU with Ministry of Agriculture Animal Industry and Fisheries (MAAIF) to end hunger and poverty in Uganda. The Hunger Project believes in a world where every woman, man and child leads a healthy, fulfilling life of self-reliance and dignity. In Uganda, we work in 9 districts of Mpigi, Butambala, Wakiso, Kiboga /Kyankwanzi, Mbarara, Kiruhura, Iganga and Mbale with a major aspect of using an epicenter strategy which is more of a gender focused community led development approach. This epicenter strategy which covers a radius of 7-10Km empowers people in rural communities to become authors of their own development & succeed in meeting all their basic needs on a sustainable basis. This strategy has been recognized by government as one of those most effective strategies.

CO: How does your collaboration fall into TUNADO's work and the Apiculture sector?

Dr. Daisy: As we empower people, individuals identify areas they want to work in like business, processing and that is where beekeeping comes in especially in Kiruhura district. "TUNADO has the expertise in beekeeping and that strengthens the collaboration because we cannot be self-reliant. It offers the trainings in apiary management, harvesting and all categories of the beekeeping value chain." We are happy with the TUNADO partnership because it has seen our farmers grow and improve on their beekeeping and we hope the partnership continues to grow.

**By Sarah Mugoya
Communications Officer,
TUNADO**

One of the beneficiaries of the Hunger project from Kiruhura Epicentre displaying his products during the Honey week event



*Dr. Daisy Owomugasho:
Country Director, the Hunger Project*



8th NATIONAL HONEY WEEK

Theme: "Bee Friendly Farming"

No.	Category	Related costs of entry
1	General public	Free
2	Exhibition Space	Members Single stall: Ugx. 180,000 Double stall: Ugx. 360,000 Non-members & Sponsored exhibitors Single stall: Ugx. 400,000 Double Stall: Ugx. 700,000
3	Poster/Pictorial presentation on "Bees & Pollination"	Ugx. 3,000 per person
4	Pollination poem competitions for scholars	free
5	Honey week trainings	Ugx. 10,000 per person per training
6	"Pollination Fedge"	Ugx. 10,000 for individuals and Ugx. 30,000 for companies or organisations

Date: 21st - 26th August, 2017 Venue: Forest Mall

A NEW NARO CGS PROJECT:

Development and Commercialisation of Bee Products in Uganda, Project number CGS/5/34/16

The project is being implemented by a consortium of eight (8) partners that is NaLiRRI, MAK, NabuinZardi, BuZardi, AbiZardi, TUNADO, MAAIF, RweZardi with Dr. Kajobe Robert, director RweZardi being the Principle Investigator (PI) and Dr. Patrice Kasangaki as the co-PI and Mr. Mbiryomumaisho Dickson, Coordinator.

The project will focus on developing and commercializing four bee products;

- Honey (Comb, liquid, creamed honey)

- Beeswax
- Bee venom & Propolis

The expected key result areas or outputs of the project are;

- At least four bee products developed
- At least 500 beekeepers and other actors skilled in adding value to bee products and by products of their choice

- At least a sustainable marketing model for bee products established
- At least 500 beekeepers receive entrepreneurial skills to run apiculture enterprises as profit making businesses
- All generated information on the innovative tools and technologies for promoting apiculture in Uganda synthesized, packaged and disseminated.



NARO-CGS APICULTURE PROJECT

Project Title: Developing Innovative Tools and Technologies for Increased Beekeeping Productivity in Uganda

Project Duration: Two years:



NARO CGS Apiculture Project Sign post in Lira



CGS Demonstration Apiary in Kamwenge



NARO CGS Demonstration Apiary in Lira

Background

- Beekeeping for: food, employment, poverty alleviation, environmental conservation & export earnings
- Low investment, can be undertaken by the vulnerable (women, youths, disabled and elderly)
- Honey & brood, sources of carbohydrate and protein
- Pharmaceutical & cosmetic industries use honey, propolis, royal jelly, bee venom & beeswax
- Increased yield from bee pollination (coffee, tea, cotton, oil seeds, maize, mangoes, oranges, beans & spices)
- Market for bee products available; local & international
- Since 2005, Uganda has been licensed to export honey to European Union (EU)



Members of CGS research team

Problem

- Constraints on production, processing, storage & marketing
- Productive efficiency of common types of beehives used in Uganda not known
- Physico-chemical characterisation of Ugandan honeys not clearly known
- No clear protocols for quality assurance and traceability of honey
- No clear protocols for value addition and quality assurance of honey

Rationale

Technologies for increasing hive and apiary colonisation are urgently needed to increase production, to meet local and international demands. Characterising and comparing honeys from different honeybee races in the different agro-ecological zones is vital for ensuring that the best honeys are promoted while inferior ones are improved. Analysis of the value chain of honey will contribute to a favourable trade and policy environments, which will ensure that the poverty-stricken honey producers obtain maximum benefits. Designing protocols for value addition, quality assurance and traceability is vital for promoting and tracking Uganda's honey in the international market.

Goal of the Project

The goal of the project is to develop innovative tools and technologies for increased beekeeping productivity in Uganda.

Objectives of the Research

1. To evaluate the productive efficiency of common types of beehives used in Uganda for increased productivity.
2. To characterise and compare honeys from the different agro-ecological zones of Uganda.
3. To design simple and readily acceptable protocol for traceability of honey from Uganda.
4. To develop and recommend protocols for value addition and quality assurance of honey from Uganda.
5. To synthesise, package and disseminate information on the innovative tools and technologies for promoting apiculture in Uganda.

Study Area

All the 10 agro-ecological zones of Uganda

Expected Key Results and Outputs of the Project are:

1. Productive efficiency of common types of beehives used in Uganda determined.
2. Honeys from different agro-ecological zones characterised and compared.
3. Consumers' perceptions and their expectations towards honey traceability examined.
4. Simple and readily acceptable protocol/framework for traceability of honey from Uganda designed.
5. Readily acceptable protocols/frameworks for value addition and quality assurance of honey developed and recommended.
6. All generated information on the innovative tools and technologies for promoting apiculture in Uganda synthesised, packaged and disseminated.



Harvesting honey samples



Honey combs as it is in traditional box hive



Traditional type beehive



Biryomumaisho Dickson carrying honey sample for characterisation after harvesting

Results

Beehive colonization and honey chemical composition:

So far, the findings can show colonization rates among the different beehives used in Uganda (Figure 1) and chemical composition of honeys from different agro-ecological zones (Table 1)

Objective 1 results: Colonisation of Beehives

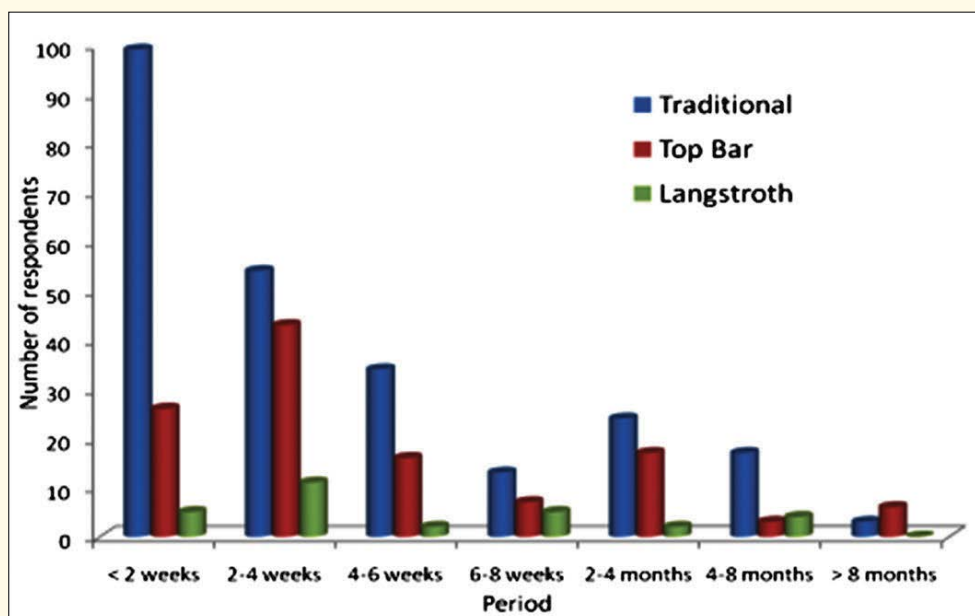


Figure 1: Colonization rates of different types of beehives

Table 1: Honey Chemical Composition

No	District	pH	EC	Acidity	Moisture %	Ash %	HMF (mg/Kg)	Reducing Sugars (g/100g)
1	Sironko	3.906	719.187	46.5	18.687	0.386	38.733	69.988
2	Kabale	4.118	633.45	31.25	17.3	0.28	42.822	70.792
3	Luwero	3.645	429.82	38.6	20.2	0.455	74.192	68.273
4	Masindi	3.656	504.541	40.6	18.15	0.681	48.016	68.354
5	Lira	3.495	278.263	34.578	17	0.296	43.436	67.947
6	Kamwenge	3.746	534.632	36.842	18.105	0.588	41.991	71.346
7	Bushenyi	4.132	772.86	29.695	18.131	0.613	46.991	71.745
8	Mayuge	3.883	589.083	31.5	17.416	0.572	37.266	73.832
9	Arua	3.537	312.588	37.705	17.529	0.287	39.876	65.846
10	Kotido	3.653	397.474	41.052	18.736	0.676	36.757	67.095
11	Country Average	3.777	517.189	36.832	18.125	0.483	45.008	69.518
12	US 18:2005	3.84	636	50	20	0.5	80	60

Research Team

Name	Organisation	Responsibility
Dr. Robert Kajobe	Rwebitaba ZARDI	PI & Team leader coordinate activities, report writing, organize feedback and dissemination of results
Prof. Jacob Agea	Makerere University	Design study, collection and data analysis supervise MSc student
Mr. Dickson Biryomumaisho	TUNADO - National member based organisation coordinating apiculture sector in Uganda	Mobilize beekeepers, generate sampling frame, guide study teams, provide background information
Mr. Cosmas Alfred Butele	MAAIF	Mobilize District Entomologists and beekeepers, guide study teams, provide background information
Ms. Diana Namayanja	NaLIRRI	Setting up apiaries and data collection, training

Contact Person address:

DR. KAJOBE ROBERT

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P.O. Box 96, Fort Portal, Uganda. TEL: +256 - 772 - 590 482 EMAIL: robertkajobe@gmail.com

“LESSONS FROM THE FIELD” FINDINGS

From 29th August through 9th September 2016, African Beekeeping Resource Centre, ABRC and TUNADO moved out in the apiaries speaking to some of the best beekeepers in Uganda particularly Mid-west, South West and West Nile to document their experiences. ABRC is an NGO registered in Kenya working on beekeeping development across a number of African countries. A number of beekeeping projects were also examined to understand their impact and the general lessons learnt on successes and failures in beekeeping development.

This was followed by a beekeeping workshop to share and discuss the findings of the project “Lessons from the field: building from field experience” to improve support for beekeeping in Kenya and Uganda in Kisumu, Kenya.

The workshop presented the study findings and ABRC was particularly keen on validating the producer’s perspective and thirty experienced beekeepers from Kenya and Uganda were in attendance along with representatives of beekeeping and government bodies.



The Uganda team in a group discussion on what makes a good beekeeping project



Group photo after the workshop

Some of the beekeepers that were visited in Uganda included;



Baleijja Jackson of Katwimukye, Hoima district in his Apiary

- He offers consultancy at a fee.
- Offers trainings for individuals and groups at his apiary at a fee.
- He harvest, processes, packages honey and sells.
- He has a good apiary site
- He has conserved the environment by planting trees.



Friday Nelson Bajoki with a honey comb



- Has a lot (over 300) hives.
- Does not fear bees (handles bees even during the day)
- Harvest, processes, packages and sells honey.
- Uses honey money to pay school fees for his children.
- Has some records



Julius Tuinomujisha- Left, Fred Otieno ABRC - right

- Still need support to harvest and carry out apiary management.
- Has good apiary.
- Has conserved environment.
- Has some records

Some of the Cooperatives Visited

COOPERATIVE	COMMENTS
 <p>Mr Magezi Eliezer, director Bunyangabu Beekeepers Cooperative Society Ltd</p>	<ul style="list-style-type: none"> - The processing unit is equipped and is functioning well. - Honey collection is going on well in two other collection centres apart from the main one. - Training of beekeepers is going on at the main centre. - Resource mobilization has been considered well by the management. - There is a demo apiary at the main collection centre. - Expansion has been considered e.g. new land has been purchased. - A number of staff in different departments e.g. Accounts, reception & sales, processing & packaging and training.
 <p>Mr. Mugisha Elly, director Bushenyi Connoisseur Honeys Cooperative Society</p>	<ul style="list-style-type: none"> - Has equipment for processing and hive making. - Has well-kept records. - Sale of honey is ongoing at the collection centre. - Marketing of bee products goes on at exhibitions and other open days.
 <p>Fred ABRC shakes Director Kamwenge Beekeepers Cooperative Savings and Credit Society Ltd, Mr. Tunanukye George.</p>	<ul style="list-style-type: none"> - Has mobilized a lot of resources to benefit the community around them. - Has a collection and processing Centre which they use as a training Centre. - They make hives at affordable prices for the local community. - They offer consultancy services.

Observations in Uganda

- Most parts of Uganda have high potential for beekeeping project.
- Superstitions can still be found in Kabale among some community members. Some of them do not believe that one can handle bees without being stung. They believe that someone who goes to the apiary and does not get stung has supernatural powers.
- Many beekeepers do not keep records and therefore they do not know whether they make profit or not in beekeeping projects. There is need for more training and follow ups to instill the culture of record keeping.
- Some projects that have been implemented concentrated on few components in beekeeping that has caused slow progress in the sector. For example, some organizations provided bee equipment only to beekeepers and left the beekeepers to continue with production without practical training; some offered processing training without considering the aspect of production.
- In some cases, honey collection and bulking is still done in Jerrycans. Drums have not been introduced.
- The experience of bee pest control and management is challenging to beekeepers in most areas that were visited.
- Placement and hanging of hives is either on fixed wooden stands or live trees. The hanging wires used for bee hives do not have the right thickness causing the hives to fall down some times after occupation.

Lessons from the field was an eye opener to most beekeepers to assist them improve on the areas that were identified during the visit. There is need for more networking and collaboration among all stakeholders including individual beekeepers to strengthen the beekeeping sector.

By Sarah Mugoya,
Communications Officer-TUNADO

HONEY AND HEALTH ROYAL JELLY for a forever young looking skin

Ever wondered what makes the worker bees live for only 42 days and the queen bee stays for 4 years?!! It is the food they eat that creates the difference, ROYAL JELLY. All larvae eat royal jelly up to the fourth day after which it is only fed to larvae being groomed into future queen bees leaving the rest on bee bread. Modern science has studied this natural substance that worker bees secrete and found that it is a powerful anti-aging and was actually used in ancient China as a tonic for kidneys to improve hair and skin appearance. Royal jelly prevents aging by slowing the natural skin aging, preventing photo-aging from ultra violet radiation, balancing hormones that affect skin rejuvenation, reducing kidney stress and lowering bad cholesterol levels.

How royal jelly slows skin aging: with increasing age, the skin's cell renewal process becomes less efficient. Tissue repair and cell regeneration slow down the amount of natural moisture present in the skin. Because collagen production is less, the skin becomes thinner and loses its flexibility. Royal jelly contains minerals like silicon that lead to increased collagen production which slows down the aging process. It also contains specific antioxidants and nutrients that support skin renewals such as flavonoids, nucleic acid, decanoic acid, enzymes and hormones. Royal jelly also contains vitamins & minerals such as B1, B2, B3, B5, B6, acetylcholine and zinc are excellent for skin health.

How royal jelly rejuvenates kidneys and skin: for those who overwork and overstress, it reflects in the skin and during this time the kidneys are working overtime. In Chinese medicine, kidneys represent strength and when they are weak, hair loses its luster, skin sags and the body retains water. Royal jelly is a tonic for kidneys which promotes their healthy functioning and it reflects in the skin.



How royal jelly prevents photo aging: sun exposure is needed for healthy glowing skin but too much ultra violet radiation causes damage to the collagen that supports the skin thus causing wrinkling and accelerated aging. Fatty acids in royal jelly especially 10-HDA increases procollagen type 1 production which causes an increase in healthy and new cells to be produced.

How royal jelly promotes hormonal balance: when there is a hormonal imbalance or specifically during menopause, a decrease in hormones often creates significant changes in the skin. Women with hormonal imbalances find that their skin becomes drier with increased wrinkles, becomes more fragile, loses some of its elasticity and is looser and becomes paler. Royal jelly is a powerful tonic and should be used for three months consistently to see hormonal balancing.

How royal jelly promotes a healthy heart thus increasing a person's lifespan: This natural substance also has ability to improve your cholesterol profile. Taking it can help to lower bad cholesterol called LDL and raise the good cholesterol called HDL. What better way to prevent aging than by preventing unhealthy cholesterol level!!

Royal jelly can be taken as a capsule or eaten as a fresh jelly, mixed in your skin care products.

Note: Remember that your skin is an organ and should be cared for internally as well as topically.

Bonus tip: Apply fresh royal jelly on your face once in a while, leave it there for 30 minutes and remove it with warm water. It will soothe and heal your skin. <http://www.bee-pollen-benefits.com/royal-jelly-and-anti-aging.html>

By Phionah Birungi
Programme Manager, TUNADO

Api Price Watch

No	Company Name	KTBs	Traditional hives	Settling tanks	Starter kit	Bee suit
1	Bee House Products	100,000	Woven basket-35,000 Tugu-40,000	50ltr-1.5M, 100ltr-2.5M 200ltr-3.2M	Ugx. 3,480,000 Includes 10 cab hives, 2 bee suits 2 smokers, hive tool, bee brush and a pair of gloves	150,000
2	Api Equip	130,000		250Ltr-250,000	Ugx. 4,000,000 Includes 10 well - made pine KTB hives, 2 bee suits, 2 smokers, hive tool, bee brush and a pair of gloves and installation.	130,000
3	Green and White Enterprises	90,000	Basket hive- 25,000 Tugu-30,000	120ltrs-2M 200ltrs-3M	N/A	150,000
4	Delta Bees Ltd	95,000	Woven basket-30,000	N/A	N/A	155,000



TUNADO

THE UGANDA NATIONAL APICULTURE DEVELOPMENT ORGANISATION

A membership & apex body for coordinating apiculture sector in Uganda

VISION

Being a vibrant membership based apex body coordinating apiculture industry in Uganda for sustainable national development.

MANDATE

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

TUNADO Philosophy

"We believe in promoting apiculture as a business enterprise."

Mission

To provide a national platform for stakeholders to promote and develop economically viable and environmentally sustainable apiculture industry in Uganda.

Core values

- Accountability
- Good Governance
- Innovativeness and Voluntarism
- Non discriminatory

Goal

Membership representation, advocacy, lobby and apiculture promotion.

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

Upcoming events

10th Annual General Meeting

Venue: Uganda National Farmers Federation Hall
Date: 27th April 2017

National Apiculture MSP

Venue: Uganda National Farmers Federation
Date: 8th June 2017

8th Uganda National Honey Week

Venue: Forest Mall, Lugogo
Date: 21st-26th August 2017

45th Apimondia International Apicultural Congress

Venue: Istanbul, Turkey
Date: 29th September-4th October 2017

3rd Uganda Apiculture Business Forum

Date: 16th-17th November 2017

End of year National Apiculture MSP

Venue: Uganda National Farmers Federation
Date: 7th December 2017

6th All Africa Api Expo 2018

Venue: Abuja, Nigeria

46th Apimondia International Apicultural Congress

Venue: Montreal, Canada
Date: 8th-12th September 2019

In proud
partnership
with;

