



International Federation of Beekeepers' Associations

Regional Commission for Africa

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APIMONDIA REGIONAL COMMISSION FOR AFRICA

BEEKEEPING IN SCHOOLS INITIATIVE

(MUZOKOMBA / BUHERA SCHOOLS TRAINING REPORT)



29th November - 5th December 2021

Supported by:



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1. INTRODUCTION

Apimondia, the International Federation of Beekeepers' Associations, has the mandate to promote beekeeping globally including to the young generation given the ageing beekeepers leaving the sector in a possible state of quandary in a few years to come. This mandate is rested upon the Regional Commissions who have the responsibility of coming up with programs that will meet the above.

The Regional Commission for Africa came up with Beekeeping in Schools Initiative as one of the programs that will help bring the young people to realise the importance of bees to mankind and the environment. It was for this reason that Muzokomba Government High School in Buhera District – Zimbabwe, was identified as one of the model schools that can be used to promote beekeeping in schools.

Muzokomba High School was also picked based on the existence of a vibrant beekeeping club already functional with more than 20 hives that are colonised and their quest to learn about bees as well as the desire to commercialise their project so as to earn income that will go a long way in supplementing the meagre fees paid by students.

2. THE SCHOOLS' INITIATIVE

The Regional Commission made efforts to secure resources and funds to respond to the request made by the school for training and as well as provision of modern hives in order for them to upgrade their apiary that had sub-standard hives some of which were dis-integrating before colonisation.

In order to assist the school with modern hives in a manner that transferred skills to students, the Commission decided to provide bee hive making training so that they will in turn be able to produce more for the school and their own at home.

The initiative was also structured to include actual beekeeping training in order to ensure the beekeeping project was handled using modern good beekeeping practices.

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Given the direct relationship between beekeeping and the environment, the Commission further included tree planting that coincided with the national tree planting day that has been set by government on the first Saturday of December every year.

In order to make the initiative more impactful, the Commission decided to extend the project to 6 neighbouring schools, namely, Muzokomba Primary School, Mzilikazi Primary School, Zvenyika Primary School, Mukodza Secondary School and Murove Primary and Secondary Schools.



Picture above: Some of the old hives that were produced before the training that were disassembled and the timber recycled to make standard hives.

3. HIVE MAKING & BEEKEEPING TRAINING

The Regional Commission managed to raise funds to procure 2 cubic of timber and the other materials required for production of Kenya Top Bar hives during the training that started on the 29th of November and completed on 2nd December 2021.

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Organo Seven (Pvt) Limited provided the hive making and beekeeping training as part of its community development program given its roots as well as supporting communities from where they have been buying raw honey for their processing. The company also brought its machines for the hive production and training so as to help with efficient and standard hive production.

The training started with safety measures as well as use of equipment in order to prevent any accidents during the training given the fact that students some as young as 7 years were involved.



Picture above: Zvenyika Primary School team working on their template on the cardboard box.

All the 7 schools took time to make templates they will use at their respective schools since they do not have the table saw and are to rely on manual hand tools.





Picture above: The Regional Commission President providing an overview of the Top Bar Hive to the students just before commencement of hive production



Picture above: Time for timber preparation with the students



Picture above: Some of the students arranging the templates in readiness for hive construction

In order for the students to have confidence in the production process, the Regional Commission President took time to demonstrate the process whilst the students and teachers were watching so they could learn by observation.

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Picture above: The preparatory steps demonstrated that helps with the assembling of the hive.



Picture above: The Regional Commission President assembling the demo hive with the assistance of one of the students

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Picture above: The completed demo top bar hive done by the Commission President.

After carefully watching the Commission President go through the paces of the top bar hive construction, the students were grouped per school to start their own construction with the supervision of both their teachers and the trainers.

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Picture above: One of the groups sorting their timber to start assembling their first hive.

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Picture above: Zvenyika Primary School Team putting the final nail on the base of their first hive.



Picture above: After the assembling, a team had to work on treating the hives so their lifespan is elongated.

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One thing that really humbled the Regional Commission President was the commitment shown by the students to work and ensure all the timber that was procured was converted into hives which they were promised to carry back to their respective schools. This resulted in the teams working even after sunset and resorting to using torch lights so they could get the job done.



Picture above: Some of the students making the hive cover frames

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Picture above: A team from Mukodza Secondary School proudly showing their newly acquired skills of cutting the metal sheets using torch light to make hive covers

A total number of 77 top bar hives were constructed by the students.

To assist the schools with enhancing hive colonisation, the team decided to use the offcuts to train the students how to make trap boxes that will be used for baiting colonies.

After four days of hive making training, the students and teachers of Agriculture, Science and Geography had a full day training on beekeeping. It was such a wonderful experience seeing primary school students asking probing questions about bee biology related questions and so much on possible careers linked to bees especially from the High School students.

The training session helped even the clubs' students that were struggling to have their hives colonised to appreciate why bees were not coming in or absconding after a few days.

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Picture above: The attention and responsiveness of the students was amazing given their level participation during the beekeeping training

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Picture above: And indeed, many were demanding to be given enough time to take notes for future use...

4. TREE PLANTING

The Beekeeping in Schools Initiative has a number of objectives to fulfil other than helping schools to establish apiaries from where they can earn some income to supplement the fees paid by students but extends to taking care of the environment which is the natural habitat of the bees.

Thus, part of the activities at Muzokomba and other participating schools included tree planting. In fact, there was a condition given to the schools that they were expected to plant at least 20 trees for every hive they were to receive after the training. This resulted in the schools looking for tree seedlings from the communities in preparation for the actual

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tree planting event that was scheduled for Saturday 4th December which coincided with the 2021 National Tree Planting Day for Zimbabwe.

The Tree Planting activity received a boost when Forestry Commission – Buhera District responded to the invitation to attend the tree planting offered the schools as much trees for planting as required in recognition of this event. The acceptance to attend the tree planting event by Forestry Commission created a new desire to make this a habit that will be repeated going forward.



Picture above: Part of the tree seedlings that were donated by Forestry Commission – Buhera office.

The number of tree seedlings brought on the day was limited by the size of the vehicle used and the schools have since made arrangements for them to organise the school truck to bring more trees that will be planted by the students at their respective schools.

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Given this commitment, Mr Mukomana proposed a partnership between the Regional Commission and Forestry Commission Buhera District to see tree planting happening every year in order to help boost the forage for the bees at the same time supporting the national government in its effort to curb desertification of Buhera district.



Picture above: The Regional Commission President, Mr David Mukomana, being officially handed the Neem tree to plant by the Forestry Commission Officer, Ms Mlambo

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Picture above: The Regional Commission President planting his Neem tree at Murove Primary School as part of the beekeeping in schools' initiative.

5. HIVES AND PROJECT COMMISSIONING

As the Regional Commission committed to having hives constructed and distributed to the schools, the participating schools had their headmasters join their students on Saturday 4th December to receive their school allocation. It was such an honour to have all the school heads some with their School Development Committee representatives.

The Regional Commission was very humbled by the presence of the District Schools Inspector (DSI), Mr Mutomba who was invited as the Guest of Honour to witness the

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milestone Muzokomba and the neighbouring schools had reached in bringing to life tangible fruits of the new curriculum that is now focusing on life skills development. The DSI was also accompanied by the School Cluster Schools Inspector, Mr Charamba.



Picture above: Mr J. Mudongo, providing an overview of the Beekeeping in Schools Initiative during the hives handover event.

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Picture above: The Forestry Commission Officer – Buhera District Ms Mlambo expressing her excitement about the beekeeping in schools’ initiative and tree planting activity as these work hand-in-glove.

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Picture above: The students posing for a group picture with the hives they produced before the handover.



Picture above: Mr Muzilikazi, Head of Muzilikazi Primary School, delivering words of gratitude to the students on behalf of the School Heads involved in the initiative.

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Picture above: The Regional Commission President greeting and saluting the invited guests before delivering his remarks about the initiative as well as the vision of the Regional Commission for Africa regarding beekeeping as a tool to develop Africa.

Before the hive commissioning, the students were asked to demonstrate the skills they learnt by constructing a bee hive in the full view of invited guests and other students. Two hives were constructed simultaneously by a team from primary schools and another by secondary schools' team.

To the surprise of many, the primary school team managed to complete their hive slightly 2 minutes behind their seniors, proving that given enough room, they can do what seniors are doing.

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Picture above: The Primary Schools Team preparing their timber to start constructing the hive in front of the delegates.



Picture above: The Regional Commission President could not help it but wanted to observe the girl-child (primary school team) drive the final nail to the base of their demo hive.

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Picture above: The Secondary Schools Team busy with their demonstration hive in front of the guests and other students.



Picture above: The Secondary Schools Team done with their demo hive and with the metal cover

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Picture above: Mr Makichi, Headmaster of Muzokomba Government High School, Mr Mutomba (DSI – Buhera) with the Regional Commission President joining the Primary Schools Team after completing their demo hive



Picture above: Official handover of hives to the representatives of the participating schools done by the Forestry Commission Officer, DSI and the Commission President.

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The hive distribution was done based on the criteria agreed by the schools and in support of Muzokomba Government High School as the model school. The distribution was done as shown in the table below:

| School | Number of Students | Number of Teachers | Number of Hives Allocated | Number of Trap boxes Allocated |
|-------------------------------------|--------------------|--------------------|---------------------------|--------------------------------|
| Muzokomba Government High School | 30 | 6 | 23 | 1 |
| Mukodza Secondary School | 10 | 1 | 9 | 1 |
| Murove Secondary School | 5 | Nil | 10 | 1 |
| Muzokomba Primary School | 11 | 1 | 8 | 1 |
| Muzilikazi Primary School | 8 | 1 | 8 | 1 |
| Murove Primary School | 6 | 1 | 7 | 1 |
| Zvenyika Primary School | 6 | 1 | 7 | 1 |
| Guests at Initiative Launch – Gifts | | | 5 | |
| | | | | |
| TOTAL | 76 | 11 | 77 | 7 |

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Picture above: Part of the community at Murove Primary School that came to receive the hives brought by the Primary and Secondary School students from Muzokomba and also to participate in the tree planting activity

6. INITIATIVE COSTS

The Beekeeping in Schools Initiative was carried out using resources mobilised locally and by the Commission. The following is the breakdown of the costs incurred

| Description | ARC / OMI Solutions | Schools | Organo Seven | Total (USD) |
|-------------------|---------------------|---------|--------------|-------------|
| Hive Making Equip | | - | 250.00 | 250.00 |
| Timber | 400.00 | | - | 400.00 |
| Fuel & Power | 150.00 | 120.00 | - | 270.00 |

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|----------------------------|---------------|---------------------|-------------------|-------------------------|
| Nails and Paint | 75.00 | - | - | 75.00 |
| Metal Covers | 100.00 | 70.00 | - | 170.00 |
| Food & Boarding Facilities | - | 391.00 | - | 391.00 |
| Training & Facilitation | - | - | 1, 200.00 | 1, 200.00 |
| Seedlings | - | 150.00 | - | 150.00 |
| | | | | |
| Total | 725.00 | 731.00 | 1, 450.00 | 2, 906.00 |
| Nature | Cash | Contribution | Co-Funding | Initiative Total |

7. FEEDBACK

The training offered to the students from 7 schools had positive feedback provided by many including the teachers, students and parents.

The students provided constant feedback expressing their appreciation of the life skills they were given throughout the training. Some have indicated they will start beekeeping at home in order to raise their own fees given the fact that they are now able to make the hives by themselves.

A number of teachers equally provided feedback that was very positive to the extend that they have had review meetings and encouraged themselves to start beekeeping at their own homes as part of their retirement project.

A number of parents who witnessed their kids demonstrating how to make the hives ran short of words to express their gratitude to the Commission and pledged to support their children with money to buy timber and basic tools for them to keep practising hive making.

The training coincided with examinations for the “O” Levels and “A” Levels and Muzokomba is the collection centre where neighbouring schools drop off the examination

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scripts, a situation that made other schools that were not included in the initiative to witness what was happening. And they were not happy that their schools were not included as they could not believe how much the students were able to construct the hives on their own. This has resulted in those schools asking if a similar training can be rolled out to their schools in the coming year.

The feedback from the District Schools Inspector summed how important this training was when he lamented why the Commission did not advise his office in good time for him to have invited his superiors to witness such a live demonstration of the district's idea of what the new curriculum should be.

8. RECOMMENDATIONS

Based on the feedback from all the stakeholders who participated in the week-long program, a number of recommendations were put forward for the Commission to consider. This was done so as to keep the momentum going, not only for the schools that participated but rolling out the same to other communities.

The following are some of the recommendations made:

- i. The Initiative need to be expanded to other schools within Buhera District.
- ii. The Commission partner with Forestry Commission in Buhera to roll out the beekeeping project and tree planting as joint initiatives
- iii. Primary schools be equipped with basic tools for them to be able to start woodwork at an early age for the kids
- iv. Muzokomba Woodwork Workshop be equipped with modern machines so as to offer students doing woodwork as a subject proper tools and machinery to do practicals as well as make hives that can be sold to other schools and communities at a reasonable price
- v. An association be formed by the schools doing beekeeping so as to provide a support mechanism for the schools and students wishing to pursue beekeeping as a career or business.

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- vi. There is need for school apiaries to be fenced since there is lack of enough security for the hives against vandalism and theft as well as protection of the trees they are planting to supplement natural forage for the bees.
- vii. There is need for every participating school to have complete protective equipment in order to help manage the bees

9. PICTURES IN PERSPECTIVE

The following additional pictures provide a trail of activities that took place during the training culminating in the tree planting on 4th December 2021.



Picture above: Mr Gasela, Muzokomba Primary School teacher lending a hand to his team to make the template on cardboard box

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Picture above: The Commission President showing how to make the hive.



Picture above: Making a comparison between the old hive with the newly constructed hive.

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Picture above: Mr Sengweni, one of Muzokomba Woodwork Teacher giving instructions to the students



Picture above: Students using sash clamp to fix their hive



Picture above: Mr B Chikondwa, Zvenyika Primary School Teacher assisting his students.



Picture above: Mr Nigo Mukodza Secondary School Teacher giving a helping hand to his team

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Picture above: Muzilikazi Primary School students finishing their first hive



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Picture above: Mukodza Secondary School Team working on the metal sheets slicing them to make the hive covers



Picture above: Time for lunch and the meals were prepared by Food & Nutrition Team

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Picture above: Secondary School Team starting make their hive during the demonstration in front of the guests.



Picture above: Secondary School Team proudly showing their hive produced in less than 20 minutes.

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Picture above: Primary School team making the demo hive in front of the guests



Picture above: And the excitement is written all over the faces that they did it even if it was a few minutes behind their seniors. Behind them are Mr Chipadza – Murove

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Parent and Mr Gotosa – Mzilikazi Primary School Teacher with the Commission President



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Picture above: Mr Charuma, Muzokomba Deputy Headmaster receiving the hives on behalf of the High School and the Beekeeping Club



Picture above: Mukodza Secondary School receiving their hives

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Picture above: Mr Tigere, Murove Secondary School SDC Chairman receiving hives on behalf of the school



Picture above: Muzokomba Primary School receiving their hives represented by the most illustrious students. What a team of brilliant young minds that, if well groomed, can make a difference in Buhera.

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10. Special thanks

Apimondia Regional Commission for Africa is grateful for the assistance provided by OMI Solutions to procure the timber. OMI has become a very reliable sponsor of Regional Commission initiative and the Commission is humbled to have such entities that are prepared to offer a hand to help our communities.

The Commission also wants to extend a special thanks to Muzokomba Government High School and the School Head for hosting the students from the 7 schools and providing food and accommodation in such difficult times. The event stretched the school budget including offering the school truck to pick timber from Mutare.

Many special thanks are also given to Organo Seven who provided the machine that was used for the training and hive production as well as the training and facilitation services for free as part of its support for the Regional Commission Initiatives. The support was also given as a way to give back to the community from where it is rooted.

11. Report done by:

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