

Cooperative Entrepreneurship Mindset Development For Beekeepers In Manicaland Province, Zimbabwe.

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Abstract: Cooperatives have a universal image as an instrument of economic, social and cultural support, and yet their known record has been less than exemplary in any country. The study provides an overview of Manicaland province of Zimbabwe beekeepers' status and their interest in establishing cooperative business that has to improve their position in the market place within the country and abroad. Two hundred and ten beekeepers were surveyed from October 2021 and completed in December 2021 from seven districts of Manicaland. The survey was covering four objective of the study: 1. To examine the entrepreneurship mindset of respondents regarding present and future beekeeping business in Zimbabwe. 2. To establish the source of information and knowledge associated to cooperative business and possible cooperative impact on honey producers' income in Manicaland province of Zimbabwe. 3. To determine the beekeepers' willingness for membership in the cooperative business and the prospects of successfully organizing a beekeepers' marketing cooperative in Manicaland province of Zimbabwe. 4. To identify the beekeepers respondents' assumptions pertaining to the successful development or failure of a Zimbabwean beekeepers marketing as a cooperative business. Questionnaires were used to collect data from the bee keepers and beekeepers supporters. Microsoft Excel software was used to calculate all statistics collected from the studied districts. Focus group discussion was carried out in each district and photos were taken after permission granted by the farmers. Small scale beekeepers in Zimbabwe is more than 79% and are willing to increase the number of their beehives to increase the production of honey in the country. The results indicate that the level of honey production in Zimbabwe can increase in the near future.

Key words: Honey market, honey production, co-operative business, Manicaland province, Zimbabwe

1. Introduction

In order to solve the ecological, political, social and economic problems in Zimbabwe, the Zimbabwean government and development agencies (non-governmental organizations) have invested in programmes focused at maintaining the biodiversity and increasing the productivity of the beekeeping industry in Zimbabwe. Manicaland province agricultural sector has been in transition since the start of the land reform in Zimbabwe up to date. Structural changes have caused this transition whereby 50 percent of land was heavily subsidized and vertically integrated agricultural holdings before the land reform (Chirisa & Dumba, 2012; Tigere, et al., 2019). A large number of very small land holdings which is around 3-10 ha were distributed to the black majority farmers of Zimbabwe. These farmers have engaged in beekeeping to improve their income. Family plots are the foundation of agricultural production in Zimbabwe. They represent ownership of over half of the cultivable land, livestock and 100% of apiaries. Most of the

farmers join associations or cooperatives to gain economic benefits (Chirisa, et al., 2014). Cooperatives can be explained as self-governing institutional units which have legal status and autonomy of decision making, which is set up freely by people who have common socio-economic interest or need to be achieved by members (Borzaga & Carpita, 2017; Chalmin, 2018). A cooperative member is someone who first signed the application form for registration and accepted in accordance with the cooperative's acceptance bylaws. The accepted person usually pays a membership fee to be recognized as a member of a cooperative, and sometimes a membership fee or buying of stock is not required for membership. Members can be individual, group or body corporate members (Esakkimuthu & Kameswari, 2015; Galhardi, 2016). The cooperative enterprise ownership control and benefit are held by the members of the cooperative. Members of a cooperative can be employees, producers, clients, supporter or community members who have common interest, depending on the type

of cooperative to be joined. Cooperative membership should be open to all persons who are able to use the cooperative services and willing to accept the responsibilities of membership assigned to, without discrimination (race, sex, cred and disability etc) (Eum, 2017; Hanilyn, et al., 2020). The members together own the cooperative corporation and own social capital shares of the cooperative as an individual. The cooperative business principle is based on the cooperative self-help, self-responsibility, democracy, equality, equity and solidarity, including ethical values of honesty, openness, social responsibility and caring for others (Bouchard & Rousselière, 2015). Cooperative business is set up by producers for purposes of collectively marketing their output as a team. The profits of such cooperative business is shared in accordance with their agreed and signed rules and not necessarily in proportion to shares held in the cooperative business. Zimbabwean beekeepers have been less using cooperatives in marketing their products due to mistrust that has its origins in the previous time, from 1980 - 2000, soon after independence of Zimbabwe from the white colonialism (Chirisa & Dumba, 2012). However, as Zimbabwean beekeepers become used to the recent economic structure in the country, cooperative business structures show a potential access to other marketing avenues for beekeeping products and by-products. The findings of this study provide an insight of Zimbabwean beekeepers position within the beekeeping industry and their interest in establishing beekeeping cooperative businesses that have potential to put the beekeepers in better position in the market place. Cooperatives are beginning to gain more position within Zimbabwean agriculture business to register their production (Hanilyn, et al., 2020).

Table.1. Per capita honey consumption, Imports, exports and value of Zimbabwean honey during the period 2014-2020.

Description	2014	2015	2016	2017	2018	2019	2020
Imports of honey (tons)	82	1	6	5	12	24	22
Value of the imports (thousands.US \$)	180	19	13	10	41	49	47
Exports of honey (tons)	265	84	42	49	783	2.14 9	3.05
Value of the exports (thousands. US\$)	2.57 5	1.02 1	1.31 8	1.19 4	2.76 7	3.43 7	4.29 1

Source: Zimbabwe Statistics Department

Table 2. Number and capacities of large-scale and small-scale beekeepers in Zimbabwean beekeepers association by number of beehives.

	No of beekeepers	No of bee hives	Average
Large scale beekeepers	973	49,291	51
Small scale beekeepers	7,047	294,413	13
Total	8,020	143,704	18

Source: Zimbabwe Statistics Department

Working as a team has made Zimbabwean beekeepers consider cooperatives as an answer for gaining market share within the home and foreign market (Idrus, et al., 2018).

Most Manicaland Province beekeepers are now finding it difficult to independently sell their finished honey products effectively without being in a well-coordinated marketing group. Cooperative business structures are enabling these honey producers to gain market share which give lucrative income, good economies of scale, and product brand name which is well recognized and that cannot be obtained on an individual basis (Bruynis, et al., 1997; M. Esakkimuthu & Kameswari V.L.V, 2017; M. Esakkimuthu & Kameswari V.L.V, 2017; Musaya, 2018). Processing honey products for the international market, which is according to consumer demands and regulations of foreign land requires investments beyond the ability of small independent honey producers in Manicaland province (Esakkimuthu & Kameswari, 2015; Musaya, 2018). Most of the small scale honey producers in processing centre, buy honey processing equipment, and have all the skills to do honey processing, do the packaging and process the exporting documents as an individual (Mostoles, 2018). However as a group, the beekeepers can quickly get loans from the bank to run their business, they can get support from Non-Governmental Organization and from the government of Zimbabwe. The provincial consumption of honey is very low which allows opportunities for marketing produced honey to foreign markets. Table 1 shows the trends regarding the value of honey exported from Manicaland province of Zimbabwe to foreign countries (Zimstats, 2021). Small-scale beekeepers in Manicaland province of Zimbabwe are around 88% of the total number of beekeepers in the province (Smiths, 2019). Small scale honey producers and large-scale honey producers are defined by the level of technology they use to run their beekeeping businesses and the number of beehives they own. However, small-scale honey producers use low-cost technology and use more labor on a per unit basis in the honey production and sale of their hive products. Normally large-scale producers invest more in new technology and use less manual labor (Rao, et al., 2016; Musaya, 2018; Hanilyn, et al., 2020). Small-scale production levels, in generally, rarely exceed the capacity of the defined market operations. Unfortunately, in this part of the beekeeping population, business improvement and technology are rarely discussed by writers. The reason is that these honey producers do not take their beekeeping activity as a business, instead, they take it as a as a leisure pursuit when they do not have a challenging work (Onwubiko & Emmanuel, 2016; M. Esakkimuthu & Kameswari V.L.V, 2017). Table 2 shows the number of beekeepers in Manicaland province of Zimbabwe by total and average number of hives the beekeepers have. Around 973 Manicaland commercial beekeepers own an average of 51 beehives and this shows the development component of the beekeeping business in the province. More than seven thousand small scale beekeepers own an average of 13 beehives in the province (ICA, 2015; Mansooreh, 2021). Manicaland province honey and other hive products have been exported to foreign land in bulk, and has reduced the value per unit of product exported. To take advantage of excellent reputation of their honey, Manicaland honey producers are looking for a marketing strategy that can give the beekeepers higher income. Higher income can be achieved by increased value of their honey product per unit. To achieve higher price per unit of their hive product, the beekeepers must come up with an up-to-date marketing strategy that include sophisticated product advertising, increased product market penetration, good quality product

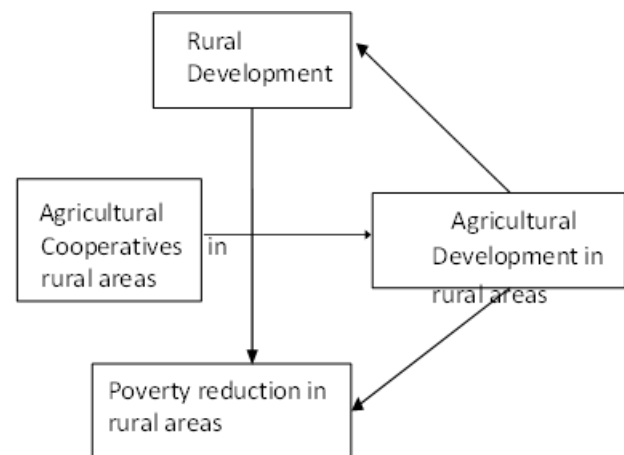
packaging, grading of hive products, and a more efficient distribution system. Manicaland province bee farmers are now realizing that they must take a proactive approach when marketing their bee products to reduce their vulnerability in the market place (Hunter, 2015; Chalmin, 2018). The solution the beekeepers in Manicaland province of Zimbabwe to help them to improve the marketing and profit margins for their products is to form a cooperative business. The cooperative business can help both small and large honey producers by providing a business structure that can grade their hive products, process their honey, sell and distribute hive products with the best interests of honey producers in mind. Soon after independence, the Zimbabwe government encouraged people to form cooperatives in order for it to be able to assist them financially (Bouchard & Rousselière, 2015). Some of the people who joined these cooperatives were not for the growth of their business, but for the money which were poured into the cooperative. There were no enough trainings given to these people on how to run these cooperatives (Borzaga & Carpita, 2017). Some of the committee members looted the funds given to the cooperatives and left the organization. This created some resistance within the honey producer associations to the term cooperative itself, which can be understood as justifiable based on the previous results of bad experiences. Presently, Zimbabwean law on cooperatives is using the western-style cooperative formation as a legal business. Now more people are developing more interest to join a cooperative with the intention to gain a profit and tax privileges inherent to the cooperative form of business in Zimbabwe (Coop, 2016). A number of entrepreneurs were not willing to join a cooperative in Zimbabwe, due to its failure in the early days soon after independence. Now the rural entrepreneurs are benefiting from cooperatives and are seeing the benefits of working as a team due to the support given to the cooperatives by the government and the non-governmental organizations in Zimbabwe (Drivas & K., 2010). Presently, the Zimbabwean honey market is not well structured with around 20 to 30 percent of processed honey formally marketed. Most honey production is sold through unregistered channels, such as farm gate marketing, door to door honey marketing and crossing the border with honey and sell it into Mozambique without passport and license to export the honey (Eum, 2017). The cooperative business is providing Zimbabwean beekeepers an alternative honey market with potential honey business benefits, taking into consideration of their financial circumstances, the size of their average beekeeping business, and the government support for free-market cooperative businesses within the Zimbabwean agriculture business (European, 2016). It is known that when cooperatives are run effectively, farmers will get higher remunerations for their products they sell and are encouraged to invest more into the business. There are some changes in the way Zimbabwean bee farmers are now structuring and conducting their beekeeping business. These changes are influenced by the support given by the government of Zimbabwe, support given by the non-governmental organizations and changes in foreign and domestic honey market. Most of the changes are dealt with and addressed through their Zimbabwean bee farmers associations and organizations (Galhardi, 2016). The beekeepers are now able to act jointly in marketing their bee products and sharing knowledge and ways that help them to improve the quality and the quantity of their products

through their cooperative structure (Giraud-Dumaire & Frey, 2016).

2. Conceptual framework

Factors which are considered most in the development stages of any country are: poverty reduction community members, increase in income balance for individuals, social welfare of the citizens, and the reduction of unemployment in a country are the most important factors which should be considered to implement development programs of a country more successfully with few problems. Agricultural cooperatives such as beekeeping, horticulture, dairy, and others can play a significant role in the economic and social development of rural areas in any country. There are several organizations such as social, economic, and ethical organizations that can help in creating employment in rural areas by involving the participation of rural members in raising small amount of money, providing agricultural trainings, providing infrastructures and production factors of any business activity.

Figure 1: Contribution of cooperatives in agricultural development in rural areas



Cooperatives are not a new phenomenon to be organized in rural communities. They have been part of human society in many rural areas for many previous years in different countries throughout the whole world (Nelson, et al., 2016). Cooperatives play a significant role in defining and sustaining the lives of the rural and urban communities. Rural communities benefit from undertaking cooperative programmes such as beekeeping, dairy farming, poultry rearing and others not mentioned. Rural communities that continue to exist without cooperatives find themselves languishing in high levels of poverty. Cooperatives are organized for different purposes, such as economic development, empowering of marginalized women and youth in the community, to address market failures in certain communities, as a protection measure against poor socio-economic conditions, to get cheap transport and storage facilities and to purchase inputs at affordable prices which cannot be done by an individual. Some of the roles of the cooperatives to the rural communities are poverty reduction, employment creation, community food security, women and youth empowerment and human capital development which is a great necessity in any country.

3. Purpose and Objectives

The reason for this study was to find out the Zimbabwean beekeepers' contribution pertaining to the future of beekeeping in Zimbabwe and their future plans regarding the establishment of their home grown cooperative business in which their bee products would be sold. The main objectives of this study are:

1. To examine the entrepreneurship mindset of respondents regarding present and future beekeeping business in Zimbabwe.
2. To establish the source of information and knowledge associated to cooperative business and possible cooperative impact on honey producers' income in Manicaland province of Zimbabwe.
3. To determine the beekeepers' willingness for membership in the cooperative business and the prospects of successfully organizing a beekeepers' marketing cooperative in Manicaland province of Zimbabwe.
4. To identify the beekeepers respondents' assumptions pertaining to the successful development or failure of a Zimbabwean beekeepers marketing as a cooperative business.

4. Methodology and Procedures

Seven districts of Manicaland province were studied, covering a total of two hundred and ten beekeepers. The survey was carried out from October 2021 and ended in December 2021, which means the survey took three months to be completed. The seven districts and their respondent numbers were: Chipinge 30, Chimanimani 30, Buhera 28, Mutare 30, Mutasa 31, Nyanga 31 and Makoni 30. The questionnaires were distributed to the beekeepers by extension staff a week before the actual interview, farmers were explained the purpose of the survey. The questionnaire was asking the beekeepers opinion on the future of beekeeping in their districts and the beekeepers interest and intentions of organizing themselves into a cooperative business in order for the beekeepers to be able to market their hive products at a better income. The results from this survey cannot be generalized to the whole of the Zimbabwean beekeepers. However the findings have a practical results which can be used by Zimbabwean beekeeper trainers, secondary school agriculture teachers, agricultural extension staff and leaders of beekeepers associations throughout Zimbabwe. Officers from non-governmental organizations which are into beekeeping projects, Environmental Management Agency (EMA), agricultural extension staff and Forestry Commission were interviewed separately from the beekeeper in their offices and had a different questionnaire which was covering their operations in assisting beekeepers to market their hive products. Microsoft Excel software was used to calculate all statistics collected from the mentioned districts. Photos of focus groups were taken after seeking permission from the beekeepers at a focus group discussion.

5. Results and discussion

Objective 1: To examine the entrepreneurship mindset of respondents regarding present and future beekeeping business in Zimbabwe

The beekeepers entrepreneurship mindset studied focusing on increasing hive products yield through technology improvement and business integration. The collected data shows that the beekeepers at their districts have a district beekeepers association. The district beekeepers association affiliates to Manicaland Province Beekeepers Association. In other words, each district beekeepers association affiliates to the provincial beekeepers association. The results shows that the respondents were members of their district beekeepers association for an average of 8 years. Three quarters of the respondents were found that they have been members of beekeeping association for more than five years. This shows that these beekeepers have a good level of organization within the Manicaland Beekeepers Association. It was found that 40.50% of the beekeepers were members of their district beekeepers association. This percentage shows that the beekeepers understand that operating a business as an individual has its own shortfalls in terms of finding genuine buyers, bargaining the price and sourcing beekeeping equipment. However the percentage needs to be increased.

Table 3. Bee farmers into cooperative business.

Experience of bee farmers in years	Number of bee farmers into a cooperative business	Percentage (%)
0-5	59	28.10
6-10	51	24.30
11-20	31	14.80
21-30	29	13.80
31-40	25	11.90
More than 40	15	7.10
Total	210	100

The number of new beekeepers who recently joined beekeeping (0 – 5 years) and are into beekeeping cooperative is higher than those who have been into beekeeping for many years. Table 3 shows that new beekeepers are increasing each year. The table is telling us that in the near future, beekeeping in Manicaland province will be a big business in the agriculture sector of Zimbabwe. However, most of the groups into honey marketing are selling unprocessed honey as a group due to lack of honey processing equipment. Some of the farmers lack knowledge on the benefits of adding value to their honey. If these farmers get enough knowledge, their lives will be changed and this will attract more beekeepers to get into beekeeping and work as a team. The possibility of exporting more honey to other country from Zimbabwe is high if the beekeepers in Zimbabwe continue to work in a cooperative business.

Table 4. Beekeepers according to number of bee hives they have

Number of beehives	Number of beekeepers	Average (%)
1 - 50	47	22.40
51 - 100	66	31.40
101 - 150	51	24.30
151 - 200	31	14.80
201 - 250	11	5.20
More than 250	4	1.90
Total	210	100

The highest percentage of beekeepers (31.40%) is having beehives between 51 – 100 beehives. This range can allow beekeepers to export more honey as a cooperative. The number of beehives the beekeepers in Manicaland have can

warrant the beekeepers to export extra honey after satisfying the home market. It was found out that 21% of beekeepers surveyed had no intention of increasing their number of beehives. The rest of the beekeepers (79%) were willing to increase the number of their beehives if they get financial support and more paying honey market.

Table 5. Honey production and average yield

Quantity of honey produced (kgs)/ year	Number of beekeepers	Quantity of honey produced per beehive (kgs)
0 – 500	32	21.42
501 – 2000	71	21.54
2001 – 2500	53	27.89
2501 -3000	38	38.38
More than 3000	16	38.82
Total	210	

On table 5, the information shown is regarding yield by total production level of honey. It was discovered that beekeepers who are producing up to 500kg honey per annum, have other agricultural and other income generating activities they do in their communities. These bee farmers either take beekeeping as a hobby or as an income supplementary activity. This group sell their honey at the farm gate and they put very little effort to improve their honey production level and add no value to their honey. Their effort to honey production is divided into several income generating activities. Around 45% of them do not belong to a cooperative honey business. The second group is beekeepers who are producing honey between 501kg up to 2000kgs per annum. This group has very little activities outside beekeeping. Most of their activities is centered on beekeeping. Very little is done outside beekeeping. They sell processed honey and they are registered honey producers. They have modern honey processing equipment. Their hives range from Kenya beehives to Langstroth beehive. The biggest number of their beehives are the Langstroth. This group has 92% membership in a cooperative honey business. The last group is of beekeepers who are producing honey from 2500kg up wards. This group depend on beekeeping. They have trained labor on beekeeping. They export their honey as a group. They understand cooperative business more than the first group. Most of them are more experienced than the first group. Their apiaries have exotic and indigenous plants. Some of their beehives are sheltered in bee houses, to give their hives long life. They do not have other activities as their life line of income. This group also offer pollination services, sell beeswax, sell seedlings of plants frequently visited by bees for their flowers and they also offer apitourism. This group also export honey as a team to meet the quantities required by the importing country. The number of beekeepers who are in this category is the largest. This shows that the future of the beekeeping in Manicaland province is bright and has a potential of creating large number of workers in Zimbabwe.

Objective 2: To establish the source of information and knowledge associated to cooperative business and possible cooperative impact on honey producers’ income in Manicaland province of Zimbabwe.

Table 6. Attitudes towards being a cooperative member

Description	Number of beekeepers	%
I am already a member of a cooperative	85	40.50
I intend to be a member	58	27.60
I will see	12	5.70
Probably not	9	4.30
Definitely not	46	21.90
Total	210	

About 40.50% of the beekeepers belong to a beekeepers ‘cooperative. The percentage of beekeepers who are intending to become a member of a cooperative is 27.60%. The respondents who indicated that they will see if they can join the cooperative were found to be 5.70%. The respondents who were not sure that they will join a cooperative were found to be 4.30%. However, 21.90% definitely showed that they will not join a cooperative. They are planning to work as an individual. However those bee farmers who do not belong to a cooperative and those who are not willing to join a cooperative, if given a training on importance of joining a cooperative, some of them will change their negative mindset towards cooperatives. When the respondents were asked whether a cooperative can help to increase their income, 10% of the respondents can be categorized as sceptic, since they were giving answers such as “Unlikely” and “No” responses. After combining the responses, fifty two percent of the respondents were confident that through a cooperative venture, their income from beekeeping will increase. After analyzing by producers categories, most suspicious of a cooperative venture were beekeepers with 0–500 beehives who totally do not believe that a cooperative business can bring direct financial benefit to them. The beekeepers on the category 501 – 2000 beehives consider the cooperative as a solution to increase individual income.

Objective 3. To determine the beekeepers’ willingness for membership in the cooperative business and the prospects of successfully organizing a beekeepers’ marketing cooperative in Manicaland province of Zimbabwe.

As shown by table 6, about 21.90% of the respondents excluded the possibility of joining a beekeeping cooperative as a member. About 27.60% of the respondents were ready to join the cooperative soon, while around 5.70% were at a wait and see position during their first year’s business operation. The number of beekeepers who are in a cooperative, together with the number of beekeepers who are at the deciding position is more than the number of beekeepers who are not willing to join the beekeeping cooperative. Some of the beekeepers who are not willing to join the cooperative have no idea of the benefits of joining a cooperative and they need education. In any society, people who are very poor is not because they are very lazy to work, but it is because they lack someone who can give them advice to get out of poverty. Those who are not willing to join a cooperative, some of them if they get advice, they will join.

Objective 4. To identify the beekeepers respondents' assumptions pertaining to the successful development or failure of a Zimbabwean beekeepers marketing as a cooperative business.

The highest number of respondent showed that cooperative success, in most cases depends on individual initiative in the cooperative business, the members understanding and their overall participation were given by respondents as instrumental in the successful development of a cooperative. These ideas are followed by state support and legislation used in the country for cooperatives. On honesty of members and cooperative management staff, most respondents with less than 500 beehives consider this as very important to the success of a cooperative entrepreneur. The respondents gave the most reason for possible failure of a cooperative business in beekeeping as a connection attached to a cooperative by its members that cooperatives have inadequate benefit for members. Respondents showed other reasons for failure to be associated with lack of state support, an unwillingness to give up their right to sell their honey independently and the impact on final revenue from the beekeeping. The most importance reason for a failure of beekeeping cooperative business is the lack of honesty of cooperative management team and the lack of member support and honesty in supporting their organization.

Chipinge district beekeepers association attending end of year meeting



6. Conclusions and implications

Zimbabwean beekeepers are willing to learn and adopt new technology, willing to improve modern production practices and look for new marketing ways that improve the welfare of Manicaland province beekeeping business. Manicaland beekeepers are capitalizing on new technologies to increase their honey production and increase market penetration. The highest number of beekeepers take beekeeping as a business and not a hobby. It was found out that 40.50% are already members of a cooperative society and this shows that this percentage can be increased if these beekeepers who are not member receive trainings on benefits of being a cooperative member. About 27.60% of the beekeepers have indicated that they are willing to become members of a cooperative and 5.70% are at the wait and see position. If they find out that the beekeepers who are members of a cooperative are generating more income, then they will also join the cooperative. About 4.30% beekeepers are not sure whether they will join a cooperative or not. These beekeepers are confronting a decision problem. This shows that these beekeepers need training so that they will understand the idea of being a member of a cooperative. Understanding cooperative economic benefits will help to recruit other

beekeepers into a cooperative organization who are not members by helping them to make informed decisions. For the future success of beekeeping in Zimbabwe, the government should give support to beekeepers which include training of beekeepers, funding and assist beekeepers in looking for export markets. Once the beekeepers receive attractive income, more beekeepers will join and more foreign currency will flow into the country and the life of beekeepers will be transformed.

Conflict of Interest

The authors declare that there is no conflict of interest regarding the publication of this paper.

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Author Profile



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I received the certificate in agriculture from Kushinga Phikelela Agriculture Institute in 1991, which is in Zimbabwe. I went to Gweru Teachers' College where I received a diploma in Agriculture Education in 1997. From 1998, I worked in the ministry of education as a secondary school

teacher, teaching Agriculture up to 2004. In January 2005 I left teaching and went to the University of Zimbabwe where I graduated with a B.S. Animal Production in December 2007. In January 2008, I joined the Ministry of Agriculture, in the Department of Livestock Production and Development as a livestock Specialist. In 2017, I applied for a study leave and went to Chinhoyi University and Technology where I graduated with a M.S. Applied Entrepreneurship in Agriculture in 2018. In 2020 I applied for a PhD research in beekeeping at Chinhoyi University and Technology which I am doing now. I am very much interested in training the youths in livestock projects, so that one day they will make a living out of these projects when Covid 19 is over.