

**THE RELATIONSHIP BETWEEN BEE KEEPING AND SCHOOL DROP OUT
IN BARWESSA ZONE, MONING BARINGO NORTH DISTRICT, KENYA**

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Declaration

I, Jane Njambi Mbiko, hereby declare that this is my original work and has never been submitted to any institute of learning for any award

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Abstract

This study is about the relationship between bee keeping and the rate of school drop outs in Barwessa zone, Moning Baringo North District, Kenya

Its purpose was to examine the effects of bee keeping on the attendance of pupils in Primary Schools of Barwessa zone

To achieve this purpose, the researcher was guided by the following objectives:

- i. To examine the learner's attitudes towards bee keeping as compared to education
- ii. To find out the parents' view about education of their children as compared to their active involvement in the bee keeping practices.
- iii. To find out the community's attitude of education of its children to their active involvement in the bee keeping practice.

It was also intent of the researcher to find out possible measures to overcome the effects of bee keeping on the rate of school drop outs in the area of Barwessa zone in Baringo North. The researcher used four categories of respondents in the sampled schools and from the community, these included:

1. Learners
2. teachers
3. head teachers
4. community elders(Parents

The instruments that were adopted by the researcher to collect data were:

1. questionnaires
2. interviews
3. observations

After carrying out the study, the researcher found out that:

learners had developed a positive attitude towards bee keeping as compared to education.

Parents has a supportive view of having their children practicing bee keeping

The community's attitude on education of its children as compared to the children's active participation in bee keeping activities is fairly positive.

CHAPTER ONE: INTRODUCTION

1.1 Background:-

Bee keeping is an important agricultural enterprise world wide. It produces honey, bee wax, propolis and royal jelly which are very important to man. Honey is regarded as a “Natural health food” and is widely used in pharmaceutical preparations. Bee wax is used in candle-making, in the manufacture of pill-coatings, beauty products and moisture resistant leather polishes for shoes.

In the electronic industry, wax is used as insulators of electronic circuits and to etch copper and glass plates. Royal jelly and propolis are used in pharmaceutical preparations.

Bees also play a very important role as pollinators of field crops and therefore render significant contribution to world food security.

Traditional methods of bee keeping are still predominant in Uganda where it remains an important seasonal activity in many regions. Rural people have a good knowledge of bees, plants and places favored by bees but hives are usually destroyed and colonies often killed in the process of collecting honey. Contamination and fermentation of honey is also common despite the diversity of vegetation suitable for bees in the region, a shortage of bees means that bee keepers are dependent on collecting swarming bee stock. The current shortage is also limiting production of honey and by-products for which there is considerable potential.

Bee hives are traditionally constructed from timber, bamboo, boruss palms or woven from forest climbers and honey is usually harvested twice a year between March-June and the secondary season in August-October. The most favored bees are *Apis Mellifera Adansonii* but six species of sting less Trigonid bees are also used in Ugandan honey production. However, hives are currently raided at night with the use of grass torches and fire to smoke out the bees leaving many colonies destroyed. Honey is eaten directly from combs or is extracted and the surplus is sold or given to relatives. Other bee products (brood comb and bee bread) are also harvested but, although they may be used, they are often destroyed.

A few keepers have modern honey presses but are commonly honey combs pressed by hand. Much of the honey produced has impurities, including wax and bee parts. Those who have invested in pressing machines produce better quality honey. Honey from honey combs is extracted, warmed, strained and bottled; some is sold to clinics to be used for medicinal purposes including treatment of sore throats and by HIV/AIDS sufferers who take it by the treatment of opportunistic infections. Propolis is also in high demand by the medical sector for treatment of diseases. Some bee keepers salvage the comb to use its wax for candles or mixed with maize flour to make ice cream cones. Addition, wax is in demand by cobblers, makers of household textiles and garments and for making batiks.

The *Kenyan* Bee keepers' Association estimates that only between 800-1200 metric tones of honey is produced per year due to current lack of bee stock. The Association has introduced improved wooden hives costing about US \$ 20 which can be opened for checking honey

Combs and reduces the damage inflicted to the colony. The association also has smoker pumps and protective wear to sell to keepers but unfortunately most bee keepers are unable to afford these items.

Baringo North District where the research has been carried out has diverse natural vegetation including thickets and forests and a favorable climate for bee keeping. In addition to the above, farming practices in the area are fairly encouraging the development of agriculture and agro forestry.

There is an active agricultural programme in Baringo North District district for example there is a large number of farmers interested in bee keeping what they lack are the highest bee keeping skills, agricultural equipment and how to handle and market high quality hone and bee wax. There is also a problem of pupils' failure to properly balance education with bee keeping.

1.2 Statement of the problem

In Kenya, Primary school Education is increasing rapidly especially with the introduction of Free Primary Education in 2003. However, at the same time, Government is also massively calling for intensive agricultural practices. One of the most implemented practices is bee keeping and with this introduction, many families have embraced it. However, many of these families use children as prime laborers. The most affected are those of the Primary school going age of 6-16 years. Related to bee keeping is the increasing number of school drop outs in Barwessa zone, for many learners do not complete the Primary cycle. Hence the researcher wishes to

find out the effects of bee keeping on the rate of school drop outs in the rural areas of Barwessa zone, Baringo North district.

1.3 Purpose of the study

The purpose of this study was to examine the effects of bee keeping on the attendance of pupils in Barwessa zone, Baringo North district.

1.4 Objectives of the study.

1. To examine the learners' attitudes towards bee keeping as compared to education
2. To find out the parents' view about education of their children as compared to taking up bee keeping practices.
3. To find out the Community's attitudes of education of its children as compared to the children's active involvement in bee keeping.

1.5 Significance of the study

- The study may help various stakeholders to realize how bee keeping negatively affects children's attending of school and hence find a way of balancing both education and bee keeping .
- It may help parents realize that though bee keeping may look a profitable venture in the short run, in the long run it may prove a disaster to the lives of children if they take it to be more important than education. In this way parents can be made to put more emphasis on the education of their children than bee keeping
- The findings of the study may also be an eye opener to the stakeholders in the Education field like the Ministry of Education, civic and religious leaders to start a massive sensitization programme to the community of not only Barwessa zone but also elsewhere in Kenya on how education and money generating projects can go hand in hand without one party negatively affecting the other.

1.6 Scope of the study

The study was carried out in Barwessa zone located in Moning Baringo North district because this is one of the areas where bee keeping business is booming. Specifically, the study was carried out from four schools namely:

- Konoo Primary school
- Lawan Primary School
- Kapttiony Primary School
- Likwon Primary School

The schools were selected because they were easily accessible and the researcher easily got the required information, however the number was limited to four due to time and financial factors.

The study covered, Learners', parents' and community's' attitudes towards education in comparison with beekeeping as content scope. These areas were selected because of the time component and the fundamentality of activities in achievement.

CHAPTER TWO

REVIEW OF RELATED LITERATURE.

1.0 Introduction:-

In this chapter, the Researcher presents related literature to bee keeping especially the views of different people among which are the; Types of bees, Climate and bee keeping, The honey bee and colony life and the Diseases that affect honey bees amongst other effects.

TYPES OF BEES:

According to Curtis Gentry (1999) on Small scale bee keeping, he says:-

“There are many different species of bees most of which are solitary and some are social. These live together in colonies with divided labor amongst themselves. The habit of visiting flowers to gather nectar is important as pollinators and of these bees that store honey, there are even fewer species that store it in sufficient quantity to make the effort of harvesting honey worthwhile.”

Curtis further stated that;

Trigona and Melipona who build their nests inside cavities, though they do not sting, they defend their colony by biting the intruder. Some secrete irritating substances along with the bite but often robbed of their honey. Their brood comb is one cell hick and usually

horizontal, they store honey in thimble-sized wax honey pots placed around the brood area of the nest. In some areas, this sting fewer bees are kept in gourds, clay pots or hollowed logs and honey is harvested by opening the nest cavity and removing the honey pots. The yield is very low and marketing it is worthwhile only on a local level though it is highly prized for medicinal purposes often.”

Another bee species by Curtis Gentry is the *Apis* [True honey bee] “there are four species in the bee genus *Apis*, three of which are native to Asia and one which is native to the Euro- African region. These are similar appearance though with different color and size, they build vertical combs that are two cells thick. The Giant honey bee [*Apis Dorsata*] and The Little honey bee [*Apis Florea*] are found In Asia, build a single comb, exposed nest Which hang mostly on tree branches, roofs and ceilings. The other two species of *Apis* [*Mellifera* and *Cerana*] normally build multi-comb nests in enclosed cavities and can also be kept in hives, only these two – a potential for bee keeping development exists.”

Stacey Leslie (2002) also observed that:-

“The Western bee hive [*Apis Mellifera*] is native to Western Asia, Europe and Arab–Africa. There is tremendous variation n this bee across its range and at least twenty different sub-species or ‘races’ are

recognized broadly divided into European and African groups and considered especially desirable for bee keeping.”

She further states that:-

“In addition to high honey yields, the ability of the Western bee hive to survive under a wide range of conditions is characteristics which have made this bee popular for the bee keeping practices.”

However the Eastern or Indian hive bee [*Apis Cerana* formerly *Apis Indica*] is native to Asia. Bee keeping developed with this bee in different regions of Asia since it can be hived in man-made containers. Honey yields of up to 15-20 kg per year are obtained in some areas but the average is much lower.

CLIMATE AND BEE KEEPING.

According Okot Williams (2001) in his book “Encourage Young Farmers” he says that:-

“To understand the relationship of climate and bee keeping, it is useful first to understand two concepts related to bees and their environment. These are nectar flow and honey flow which are different but with similar concepts. The nectar flow is totally function of plants referring to both the quantity and quality of nectar secreted by plants present and the weather

factors affecting those very plants. **The honey flow** is a function of bee-plant relationship. It is the use of the nectar flow by the bee colony and the weather conditions are also a factor in the honey flow where a good flying weather for the foragers during good nectar flow is necessary for a good honey flow.”

Further more, Okot observed the bee strains and stated that:-

Bee strains are many around the world but the most common ones include; - The Italian, Caucasian and the African strains.

The Italian strains are hardy, industrious, relatively gentle and yellow – brown in color.

The Caucasian bee strains are more gentle and grey black in color and for the African bees which are generally smaller in body size than the above are most suited in the tropics, more aggressive with short life span.

THE HONEY BEE AND COLONY LIFE.

According to Ochan Ben (2000) in his journal “Reporting agriculture for the 21st Century talked about honey bees:-

“These are social insects which live together in colonies depending on each other for survival. The majority of bees in a colony are Workers, some are

Drones and one Queen who lays all the eggs required to maintain the colony's population and also "rules" the hive with pheromones."

Ochan further states that:-

"The workers can number up to 60000 per colony depending on the prolificacy of the Queen, available food supply and the space available for expansion. The main job of the worker bees is to collect pollen, nectar, propolis and water for the entire colony, do the hive work and guard the colony against intruders. These also "air condition" the hive and maintain a fairly constant temperature and humidity at all times. However the number of drones in the colony varies with the seasons of the year being fewer when cooler and when there is shortage of food stuffs these are usually driven out of the colony by the worker bees."

He further observes that:-

"The Queen bee normally makes her nuptial flight when she is about one week and mates with a drone. She then returns to the hive to lay eggs. One Queen Lays up to one thousand eggs in a day and several thousand eggs in her life time and each egg is usually deposited in a separate cell of the honey

comb. This egg hatches within three days into larvae which are fed

And nursed by worker bees for several days before being sealed in cells of the honey comb. Inside the honey comb cell, the larva develops into a pupa and emerges after about twenty days as a worker, Drone or a young Queen depending on the amount of Royal jelly fed though Queens hatch from larvae fed on extra royal jelly.”

Diseases of honey bees could also be effects of bee keeping.

According to Nsubuga Nvule (1998) reported that:-

“There are a number of diseases which attack bees of all ages, the American foul brood caused by *Bacillus* larvae, European foul brood caused by *Streptococcus* pluton, Sac – brood a viral disease and other several fungal diseases.”

More effects of bee keeping by Nsubuga were:-

Absence of Queen Bee raising and packaging

Projects being the main constraints to the modernization of bee keeping in the region. Queen bee

raising and packaging would be a step to improved bee keeping, honey and wax production and improvement of incomes and the environment, since honey has a ready market and bees can be used to improve pollination. Bee and bee packaging project would be an impetus to modernization bee keeping as it would enable multiplication of the native bee stock and promote a variety of different strains that cater for the bee keepers' needs to improve their earnings."

The Ministry of Agriculture, Animal Industry and Fisheries (1998)
noted that:-

Bees survive almost entirely on natural foods since the climate permits vegetative growth through out the year. However, it is recommended that in drier Parts of the Country bee keepers should provide supplementary feeds in form of Cassava flour, molasses and water."

Conclusion:-

The Community should develop a positive attitude towards education of its children. Encouragement of more adults to actively get involved in bee keeping practices should be developed and find ways of encouraging more of those interested. Primary schools should introduce bursaries to attract more children to join them.

Research Questions:-

- 1) What are the learners' attitudes towards bee keeping as compared to education?
- 2) What is the parents' view about education of their children as compared to taking up bee keeping practices?
- 3) What are the Community's attitudes of education of its children as compared to bee keeping practices?

CHAPTER THREE. METHODOLOGY

1.1 Introduction:-

In this chapter, the reader will be exposed to the sampled population of respondents, the research instruments, validity of instruments used and the procedure of data collection.

1.2 Sample population:

The Researcher selected randomly a target population of 20 respondents in the area of study as shown below;-

TABLE 1: SHOWS THE CATEGORIES OF RESPONDENTS.

RESPONDENTS	NUMBER
Head teacher	4
Teachers	6
Learners	5
Community Elders	5
TOTAL	20

1.3 Research instruments:

The Researcher wishes to use the instruments to collect the necessary information required for the completion of the report:-

- i. Questionnaires
- ii. Interview
- iii. Observation

1.5 Reliability of the instruments.

Research instruments like questionnaires and oral interview schedule were pre-tested before going to the field. In the process, it was found out that there were some loopholes in it. These were revised and therefore by the time data was collected from the field, the reliability of the instruments had been proved.

1.6 Procedure of data collection

After developing the research tools, the researcher got introductory letter from the director Institute of Open and Distance Learning Kampala International university took them to the sampled schools which enabled her to get the necessary information from the respondents ie teachers, head teachers, pupils and others.

1.7 Data analysis

The data was collected and systematically studied, recorded item by item according to the category of respondents. All the data were focusing on the relationship between beekeeping in Barwessa zone and pupils' attendance of school and school drop out rate

1.3.1 Questionnaires;

With the assistance of the Supervisor, the Researcher selected the best questions for the respondents to provide the required information. The questionnaires were both closed and open ended to allow the respondents give a wide range of answers.

1.3.2 Interview;

The Researcher used an interview guide which helped the respondents to focus mainly at the area of concern and enabled them give the Researcher the required information because these ensured the Researcher met his respondents face to face for direct information feedback and also got their expressions of concern.

1.3.3 Observation;

The Researcher also used the observation instrument by visiting homes where there are intensive bee keeping practices. The Researcher also visited most class rooms during school time to see the population in these sampled schools and it is from these visits that the Researcher observed how bee keeping has claimed many pupils from school to take up the practice.

1.4 Validity of the instruments;

This information was compiled during the construction of Questionnaires, Interview guide and Observation check list with the help of the Supervisor who found them very suitable for the respondents to provide the required information.

CHAPTER FOUR

PRESENTATION OF DATA AND ANALYSIS.

1.1 Introduction:

In this chapter, the Researcher presents his field findings according to the research questions, the categories of respondents, instruments for data collection –item by item. The data is presented in tables using numbers, percentages and verbal descriptions.

1.2 DATA ON RESEARCH QUESTION ONE:

1.2.1 Results from the questionnaires;

This research question was to find out the learners' attitudes towards bee keeping as compared to Education. This was tested using items 1, 2, 3 and 4. Item 1 asked: - Do you believe learners enjoy bee keeping related activities more than school activities?

TABLE 2: SHOWS THE RESPONDENTS' RESPONSES ON WHETHER LEARNERS ENJOY BEE KEEPING ACTIVITIES MORE THAN SCHOOL ACTIVITIES.

CATEGORIES	YES	PERCENTAGE	NO	PERCENTAGE	TOTAL
LEARNERS	5	100%	-	-	5
TEACHERS	4	60%	2	40%	6
HEAD TEACHERS	2	50%	2	50%	4
COMMUNITY ELDERS	1	20%	4	80%	5
TOTAL	12	60%	8	40%	20

From the table above, most respondents like the learners and teachers believed that learners enjoy bee keeping related activities more than school activities where 100% of the learners said Yes, 60% of the teachers said Yes and only 20% of the Community elders said Yes whereas 80% of the Community elders said No, the Head teachers who agreed were 50% as compared to 50% who disagreed.

Item 2 asked: Learners find bee keeping simpler and relaxing.

TABLE 3: PRESENTS RESPONSES FROM RESPONDENTS ON WHETHER LEARNERS FIND BEE KEEPING SIMPLER AND RELAXING.

CATEGORIES	YES	PERCENTAGE	NO	PERCENTAGE	TOTAL
LEARNERS	5	100%	-	-	5
TEACHERS	5	80%	1	20%	6
HEAD TEACHERS	3	80%	1	20%	4
COMMUNITY ELDERS	2	40%	3	60%	5
TOTAL	15	80%	5	20%	20

According to the table results above, the respondents have shown that most learners find bee keeping simpler and relaxing where a total of 80% agreed and only 20% disagreed among the respondents.

Item 3(a) asked: Do you believe learners take education to be less profitable than bee keeping?

TABLE 4: SHOWS THE RESPONDENTS' RESPONSES ON WHETHER LEARNERS TAKE EDUCATION TO BE LESS PROFITING THAN BEE KEEPING.

CATEGORIES	YES	PERCENTAGE	NO	PERCENTAGE	TOTAL
LEARNERS	5	100%	-	-	5
TEACHERS	1	20%	5	80%	6
HEAD TEACHERS	2	50%	2	50%	4
COMMUNITY ELDERS	2	40%	3	60%	5
TOTAL	10	50%	10	50%	20

According to the results from the table above, there was an equal presentation from the respondents in total where 50% of them agreed and 50% disagreed.

Item 3(b) asked: If learners take education to be less profiting than bee keeping, what are the indications?

TABLE 5: PRESENTS RESPONDENTS' INDICATIONS THAT LEARNERS TAKE EDUCATION TO BE LESS PROFITING THAN BEE KEEPING.

LEARNERS	TEACHERS	HEAD TEACHERS	COMMUNITY ELDERS.
<ul style="list-style-type: none"> • They are more active during bee keeping. • They get quick money from the activity. • They get more life skills from bee keeping. 	<ul style="list-style-type: none"> • Never do learners enjoy lessons hence dodging classes. • Most learners have also dropped school due to bee keeping. 	<ul style="list-style-type: none"> • With introduction of U. P. E and more bursaries the learners still failed to show up in big numbers. • Learners leave school earlier than expected to take up bee keeping practices at the advice of their parents. 	<ul style="list-style-type: none"> • Education is more costly than bee keeping since it takes a lot of time to achieve the fruits from it. • We have benefited a lot from bee keeping and the theory of Education is quite boring to the children than the practical part of work like bee keeping.

From the table above table, the learners, teachers, Head teachers and Community elders have expressed their indications that learners take education to be less profiting than bee keeping.

Item 4(a) asked: Is it true that more Pupils are leaving school due to bee keeping?

TABLE 6: PRESENTS RESPONSES ON WHETHER MORE PUPILS ARE LEAVING SCHOOL DUE TO BEE KEEPING.

CATEGORIES	YES	PERCENTAGE	NO	PERCENTAGE	TOTAL
LEARNERS	2	40%	3	60%	5
TEACHERS	1	20%	5	80%	6
HEAD TEACHERS	3	80%	1	20%	4
COMMUNITY ELDERS	-	-	5	100%	5
TOTAL	6	20%	14	80%	20

From the table above, the respondents' results was 80% total in disagreement that more pupils are leaving school due to bee keeping whereas 20% of the respondents agreed.

Item 4(b) asked: If it's true that more pupils are leaving school due to bee keeping and you are a teacher, how many could you estimate to dropout of school in every class a year.

TABLE 7: SHOWS RESULTS FROM THE TEACHERS ON THE NUMBER OF PUPILS WHO DROPOUT OF SCHOOL DUE TO BEE KEEPING PER CLASS A YEAR.

CLASS	NUMBER OF PUPILS LOST
P. 3	4
P. 4	3
P. 5	6
P. 6	3
P. 7	4

1.2.2 Results from the observations.

During this process, the Researcher observed the mood of the children found attending to bees and most of the children get so much excited, active and have a very jovial mood during this time and say that; “it is fun to attend to bees.”

The Researcher also observed the days when children attend to bees throughout the week; it was observed that on Mondays, Wednesdays and Saturdays, the children attend to bees providing them with cassava flour, water among others.

The Researcher further observed the time when the children attend to the bees. It was observed that the children attend to the bees at five thirty (5:30

am) and at eight (8:00pm) in the evening to provide food and water, during the afternoon they regulate the bee hives by watering them to cool the temperature inside.

1.3 DATA ON RESEARCH QUESTION TWO

1.3.1 Results from the questionnaires.

This research question was to find out the parents' view about education of their children as compared to bee keeping practices of their children. This was tested by items 5,6,7,8 and 9.

Item 5(a) asked: In Bubaare sub – county, has bee keeping become more interested to children than education?

TABLE 8: RESPONSES ON WHETHER BEE KEEPING HAS BECOME MORE INTERESTING TO CHILDREN THAN EDUCATION

CATEGORIES	YES	PERCENTAGE	NO	PERCENTAGE	TOTAL
LEARNERS	5	100%	-	-	5
TEACHERS	4	60%	2	40%	6
HEAD TEACHERS	2	50%	2	50%	4
COMMUNITY ELDERS	4	80%	1	20%	5
TOTAL	15	75%	5	15%	20

From the table above, most of the respondents agreed, 75% said that bee keeping has become more interesting to children in Bubaare sub – county.

Item 5(b) asked: If you agree that bee keeping has become more interesting to children than education Bubaare sub – county, why do you say so?

TABLE 9: SHOWS RESPONSES ON WHY ONE SAYS THAT BEE KEEPING HAS BECOME MORE INTERESTING TO CHILDREN THAN EDUCATION

LEARNERS	TEACHERS	HEAD TEACHERS	COMMUNITY ELDERS
<ul style="list-style-type: none"> • There is no boredom in bee keeping. • We get a lot of money when we sell honey. • Bee keeping is more practical than education. 	<ul style="list-style-type: none"> • Children get more excited during the practice than class. • Children have come to like money at a tender age. • Some children are dropping out of school to take up bee keeping. 	<ul style="list-style-type: none"> • Bee keeping has become more paying than in short run than it is the case in education. • Poverty has also diverted people's interest to take up bee keeping. 	<ul style="list-style-type: none"> • Children have developed practical skills. • Children get natural medicines from the practice. • The practice is changing their standards of living (improvement)

Item 6 asked: For the pupils who have dropped out of school, what could be the reason for their cause?

TABLE 10: SHOWS RESPONSES FROM RESPONDENTS ON THE POSSIBLE REASONS FOR THE PUPILS' DROPPING OUT OF SCHOOL.

LEARNERS	TEACHERS	HEAD TEACHERS	COMMUNITY ELDERS
<ul style="list-style-type: none"> • Lack of school fees to children. • Some just do not want to study. • Others like girls due to early pregnancies. 	<ul style="list-style-type: none"> • Some due to cattle keeping practices. • Others have lacked school fees. • Some practice bee keeping. • Some have been orphaned by AIDS and have no care takers. 	<ul style="list-style-type: none"> • Poverty due to poor planning by Community members. • Some girls have been married off at an early stage. • Some weak learners have taken to farming practices. 	<ul style="list-style-type: none"> • Lack of counseling and guidance has led to poor decision making by parents. • Natural calamities such as drought have led to poverty of many families. • Diseases that cause body deformity e. g Polio, accidents, among others.

Item 7 asked: Is there clear indication that parents prefer their children practicing bee keeping to the children's education.

TABLE 11: PRESENTS RESPONSES ON WHETHER THERE IS CLEAR INDICATION THAT PARENTS PREFER THEIR CHILDREN PRACTICING BEE KEEPING TO THE CHILDREN'S EDUCATION.

CATEGORIES	YES	PERCENTAGE	NO	PERCENTAGE	TOTAL
LEARNERS	3	60%	2	40%	5
TEACHERS	2	40%	4	60%	6
HEAD TEACHERS	1	20%	3	80%	4
COMMUNITY ELDERS	1	20%	4	80%	5
TOTAL	7	35%	13	65%	20

The data from the above table shows that 65% of the respondents do not agree that there is clear indication that parents prefer their children practicing bee keeping to the children's education whereas only 35% agree with the research item.

Item 8 said: The cost of living is very high, parents prefer having their children practicing bee keeping.

TABLE 12: PRESENTS RESPONSES ON WHETHER PARENTS PREFER HAVING THEIR CHILDREN PRACTING BEE KEEPING SINCE THE COST OF LIVING IS VERY HIGH.

CATEGORIES	YSE	PERCENTAGE	NO	PERCENTAGE	TOTAL
LEARNERS	4	80%	1	20%	5
TEACHERS	4	60%	2	40%	6
HEAD TEACHERS	3	80%	1	20%	4
COMMUNITY ELDERS	3	60%	2	40%	5
TOTAL	14	80%	6	20%	20

From the table above, 80% of the respondents agreed that parents prefer having their children practicing bee keeping whereas 20% disagreed.

Item 9 said: Parents want to get more money from bee keeping hence their children not going to school.

TABLE 13: SHOWS RESPONSES ON WHETHER PARENTS WANT TO GET MORE MONEY FROM BEE KEEPING HENCE THEIR CHILDREN NOT GOING TO SCHOOL.

CATEGORIES	YES	PERCENTAGE	NO	PERCENTAGE	TOTAL
LEARNERS	5	100%	-	-	5
TEACHERS	4	60%	2	40%	6
HEAD TEACHERS	2	50%	2	50%	4
COMMUNITY ELDERS	4	80%	1	20%	5
TOTAL	15	75%	5	25%	20

From the above table, most of the respondents, i.e. 75% agreed with the item that parents want to get more money from bee keeping hence their children not going to school and 25% disagreed.

1.3.2 Results from the Interviews on Research question two.

This was to find out the parents' view about education of children as compared to bee keeping practices of their children.

a) The researcher asked two parents whether they prefer having their children practicing bee keeping due to the increasing costs of living.

One parent said, "Of course, children should work hard such that we can also earn something out of bee keeping."

Another parent replied, "At least children should have days to study and some other days to work and help us parents."

b) The researcher also asked the very parents that: "Don't you think education is more paying than bee keeping?"

Their response was all positive with reasons that the pay from education is a long term one and that it comes with qualifications.

c) The researcher also asked the two parents whether they do carryout community discussions about bee keeping.

The response from the parents was positive and this was done between March and June when harvesting of the honey was going on.

1.4 DATA ON RESEARCH QUESTION THREE.

1.4.1 Results from the questionnaires.

This research question was to find out the Community's attitudes towards the education of its children as compared to bee keeping.

This was tested by items 10, 11, 12, 13 and 14.

TABLE 14: PRESENTS RESPONSES ON WHETHER THE COMMUNITY FINDS IT MORE EXPENSIVE TO MAINTAIN CHILDREN IN SCHOOL HENCE BEE KEEPING.

CATEGORIES	TRUE	PERCENTAGE	FALSE	PERCENTAGE	TOTAL
LEARNERS	3	60%	2	40%	5
TEACHERS	3	50%	3	50%	6
HEAD TEACHER	3	80%	1	20%	4
COMMUNITY ELDERS	3	60%	2	40%	5
TOTAL	12	60%	8	40%	20

According to the table above, 60% of the respondents found it true that *the* Community finds it more expensive to maintain children in school hence bee keeping and 40% of the respondents disagreed with the item.

Item 11 stated: Practical skills are highly paying, the Community prefer having most of its children practice bee keeping.

TABLE 15: PRESENTS RESPONSES ON WHETHER PRACTICAL SKILLS ARE HIGHLY PAYING AND THE COMMUNITY PREFERS HAVING MOST OF ITS CHILDREN PRACTICE BEE KEENG.

CATEGORIES	TRUE	PERCENTAGE	FALSE	PERCENTAGE	TOTAL
LEARNERS	4	80%	1	20%	5
TEACHERS	4	60%	2	40%	6
HEAD TEACHERS	-	-	4	100%	4
COMMUNITY ELDERS	5	100%	-	-	5
TOTAL	13	65%	7	35%	20

From the results above, 65% of the respondents said its true practical skills are highly paying and the Community prefers having most of its children practice bee keeping and only 35% disagreed.

TABLE 16: SHOWS RESPONSES ON WHETHER COMMUNITY WANTS TO SPECIALISE MOST IN BEE KEEPING HENCE MORE CHILDREN NOT GOING TO SCHOOL.

CATEGORIES	TRUE	PERCENTAGE	FALSE	PERCENTAGE	TOTAL
LEARNERS	3	60%	2	40%	5
TEACHERS	3	50%	3	50%	6
HEAD TEACHERS	2	50%	2	50%	4
COMMUNITY ELDERS	2	40%	3	60%	5
TOTAL	10	50%	10	50%	20

According to the table results above, the respondents tied to level at 50% with those who agreed and 50% disagreed with the item that Bubaare Community wants to specialize most in bee keeping hence more children not going to school.

TABLE 17: SHOWS RESPONSES ON WHETHER IT IS TRUE THAT *IN THE* COMMUNITY, EDUCATION IS LESS PROFITING THAN BEE KEEPING.

CATEGORIES	TRUE	PERCENTAGE	FALSE	PERCENTAGE	TOTAL
LEARNERS	3	60%	2	40%	5
TEACHERS	2	40%	4	60%	6
HEAD TEACHERS	1	20%	3	80%	4
COMMUNITY ELDERS	4	80%	1	20%	5
TOTAL	10	50%	10	50%	20

From the table results above, the responses on whether it is true that in *the* Community, Education is less profiting than bee keeping, 50% of the respondents agreed while 50% disagreed.

**TABLE 18: PRESENTS RESPONSES OF RESPONDENTS' VIEW AS
BARWESSA ZONE COMMUNITY MEMBERS, WHETHER MORE CHILDREN
SHOULD LEAVE SCHOOL AND TAKE UP BEE KEEPING**

CATEGORIES	YES	PERCENTAGE	NO	PERCENTAGE	TOTAL
LEARNERS	2	40%	3	60%	5
TEACHERS	-	-	6	100%	6
HEAD TEACHERS	-	-	4	100%	4
COMMUNITY ELDERS	-	-	5	100%	5
TOTAL	2	20%	18	80%	20

According to the table results above, most of the respondents, ie 80% disagree whether in their views as Barwessa zone community members that more pupils should leave school and take up bee keeping only 20% were in support of the view that more pupils should leave school and take up bee keeping.

Item (b) asked: if you agree that more pupils should leave school and take up bee keeping, why you say so?

TABLE 19: PRESENTS THE LEARNERS' REASONS WHY THEY SAY THAT MORE DREN SHOULD LEAVE SCHOOL AND TAKE UP BEE KEEPING.

CATEGORY	REASONS
LEARNERS	<ul style="list-style-type: none"> ➤ Bee keeping practices provide honey, wax and other bi – products which you can sale off to get money in a short run than Education where you invest in a lot of money and await to be qualified. ➤ Bee keeping practices help one to acquire life and practical skills which are very active as compared to Education where there is a lot of theory work which is boring.

1.4.2 Results from the Interviews on research question three.

This Research question was to find out the Community's attitudes towards the education of its children as compared to bee keeping.

- a. The Researcher asked three parents whether they find it expensive to maintain children in school that they decided to have their children take up bee keeping.

The three parents' responses were positive because they answered "Yes."

b. The Researcher also asked the three Community members; - It has been noticed that practical skills are highly and you as a Community have decided to have most of your children practice bee keeping, is it true?
One parent answered "No" and the other two answered "Yes."

c. The Researcher further asked the Community members; - As a Community member, do you support that more pupils should leave school and take up bee keeping practices?
One parent answered "Yes" and the other two answered "No."

CHAPTER FIVE

DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS.

1.1 Introduction: -

This chapter presents findings on investigation on the effects of bee keeping on the rate of school drop outs in rural areas

1.2 FINDINGS ON RESEARCH QUESTION ONE.

1.2.1 Discussion on Research items:

According to research item 1 results as indicated in table 2 of chapter four, most of the learners and teachers agreed that learners enjoy bee keeping activities more than school activities and half of the Head teachers and majority of the Community elders disagreed with the research item.

According to research item 2 results as indicated in table 3 of chapter four, majority of the learners, teachers and Head teachers showed that learners find bee keeping simpler and relaxing as opposed by the Community elders.

According to research item 3(a) results of table 4 in chapter four, majority of the learners take Education to be less profiting than bee keeping apart from the teachers, Head teachers and Community elders who take bee keeping to be less profiting than education.

According to research item 4(a) results of table 6 in chapter four shows that majority of the learners, teachers and Community elders do not believe that more pupils are leaving school due to bee keeping as opposed by the Head teachers.

1.2.2 Observations made on research question one:

Showed that the mood of the children found attending to bees as being; - jovial, exciting and very active where they also said that:

“It is fun to attend to bees.”

1.2.3 Conclusion on research question one:

It was discovered that learners had developed a positive attitude towards bee keeping as compared to Education which has led to the rate of school dropouts to take up bee keeping related activities at primary level.

1.2.4 Recommendation on research question one.

Head teachers, Teachers and Community elders are highly recommended to sensitize their children of the need to be educated and share experiences with the children of the importance of Education especially at primary level to change their attitudes towards bee keeping as compared to education.

Head teachers should open bursaries to offer to the orphaned children.

1.3 FINDINGS ON RESEARCH QUESTION TWO.

1.3.1 Discussion on research items:

According to research item 5(a) results as indicated in chapter four table 8 shows that majority of learners, teachers and Community elders say that bee keeping has become more interesting to children than education .

According to item 7 of research results in chapter four table 11, majority of the teachers, Head teachers, Community elders shows that there is no clear indication that parents prefer their children practicing bee keeping to the children's education.

For research item 8 results of table 12 in chapter four shows that majority of the teachers, Head teachers and Community elders prefer having their children practicing bee keeping since the cost of living is very high.

According to research item 9 results of table 13, chapter four most of the teachers, Head teachers and Community elders agreed that parents want to get more money from bee keeping hence their children not going to school.

1.3.2 Conclusion on research question two:

Basing on the results from the Interviews on research question two shows that the parents having their children should practice bee keeping to earn a living whereby they can meet the high levels of standards for living since education has long term benefits as compared to bee keeping.

1.3.2 Recommendation on research question two:

The Ministry of Education and Sports should look into this issue and try to penalize parents who have denied children the Right to Education and then set restrictions upon the age and sex of the people to take up bee keeping practices.

1.4 FINDINGS ON RESEARCH QUESTION THREE.

1.4.1 Discussion on research items:

According to research item 10 results on table 14 of chapter four shows that majority of the learners, teachers, head teachers and Community elders say that the Community of Bubaare finds it more expensive to maintain children in school hence bee keeping.

Basing on the results of table 15 on research item 11, majority of the learners, teachers and Community elders agreed that practical skills are highly paying and the Community prefers having most of its children practicing bee keeping.

However for research item 12 results as indicated on table 16 in chapter four shows that it was averagely agreed upon and averagely disagreed by all learners, teachers, Head teachers and Community elders that Bubaare Community wants to specialize most in bee keeping hence more children not going to school.

According to research item 14(a) results as tabulated on table 18 in chapter four shows that majority of the learners, teachers, Head teachers and Community elders do not support that more pupils should leave school and take up bee keeping.

1.4.2 Conclusion on research questions three.

Basing on the data given from the interviews on research question three shows that the Community's attitudes of education of its children as compared to bee keeping practices is fairly positive.

1.4.3 Recommendations on research question three:

Basing on the conclusions made upon research question three, the Community should look at education as the best way to set a better and bright future for their children and not look at education as less profiting with long term benefits.

The Ministry of Education and Sports should offer more bursaries or improve on the level of Universal Primary Education to ensure that all children attain primary school education.

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Questionnaire to Teachers and Head Teachers.

- 1 a) Name of school:
b) Government aided or private?
c) Gender of respondent;
2. What is the pupil population of this school?
3. a) Are there pupils who drop out before completing the primary school cycle?
b) If yes why do they drop out?
- 4a) In your view, how has bee keeping affected learners's attendance of lessons?
b) Is bee keeping profitable?
c) How?
d) How do you guide and counsel learners on education and economic activities?
5. As stake holders in the field of education, what have you done to ensure that learners prefer schooling to bee keeping?
6. a) Do you talk with parents about education versus bee keeping in this area?
b) How often?
c) What do you mainly tell them?
7. a) Has the ministry of education done anything to address bee keeping versus pupils school attendance?
b) If yes, what?