

Honey Marketing in Ada Berga District West Shoa Zone, Oromia Regional State, Ethiopia

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Abstract
The study was carried out to analyze the productivity of honey marketing in Ada berga District. The study examines honey marketing channel to intend to provide systematic knowledge of the flow of honey trading from its origin to the final. Purposive sampling technique was used to select 160 beekeepers. The data were analyzed with percentage, frequency distribution and mean model. The findings revealed that 18.1% in the high land, 54.4% in the mid land and 20% of the beekeepers were male, 6.6% in the mid land and 1% in the low land were females. 5.6 %in the high land, 10% in the mid land and 8.1% in the low land were under the age range of 15 to 30, whereas 38.1% in mid land and 7.5% both in the high land and low land were in the age range from 31 to 50 and 13.8% in the mid land, 5% in the low land and 4.4% in the high land were above 50 years old respectively. Also, 17.5% of beekeepers used their honey for home consumption and 81.5% of beekeepers supply their honey for marketing. Ada Berga has no district level and village level market center to sell honey. The major actors in the honey value chain in the study area are producers, tej house, consumers and honey Wholesalers. Producers are mainly smallholder farmers who supply their honey to tej house, wholesalers and consumers. It was recommended that the government should Link beekeepers to the market chain.
Keywords; Honey marketing**,** Beekeepers, Honey trading

1. INTRODUCTION

Apiculture is a promising off-farm enterprise, which directly and indirectly contributes to smallholders' income in particular and nation's economy in general (Gebremichael Beletsand

Gebremedhin Berha, 2014). Race in honeybees is a result of natural selection and honeybees have been adapted to different geographical areas of the world for many years without the interference of mankind. African and European honeybees, even though were from the same species, are differing in behavior, production and on some morphologically important variables.

Bees that produce enough honey to be worth harvesting belong to the two sub families of *Apidae*, *Apinae* (honeybees) and *Meliponinae* (stingless bees). *Apismellifera* ('honey- making bee') is one of the most successful species in animal kingdom. It became more adapted to wide range of environmental conditions to greater extents. This is the one which is able to survive in semi desert tropical regions as well as in cold-temperate zones Ruttner (1986) except in the severe cold areas of the Polar Regions (Adjare, 1990). The races and strains of *Apismellifera* are over riding world importance in beekeeping, and are the basis of world's beekeeping industry. These bees are native to Africa and Europe. They have also been introduced in to almost the whole of the New World (the Americans, Australia, New Zealand and Pacific Islands) since 1500 where there were no native honeybees (Crane, 1976). European *Apismellifera* is the first studied bee, and it still receives by far the most attention.

In Ethiopia, beekeeping has been a tradition since long before other farming systems (Gezahegne Tadesse, 1996). Even though it is one of the important and oldest farming activities in the country, there are no available records, which confirm when and where beekeeping was first started. Generally, the use of honey as food and medicine Benjamin and McCallum (2008) and that of wax for candle lighting in churches has a long history in Ethiopia (Ayalew Kassaye, 2006, Nuru Adgaba, 1999). However, the Hieroglyphs of ancient Egypt refer to Abyssinia (ancient name of Ethiopia), as source of honey and beeswax and Abyssinia has been known for its beeswax export to Egypt for centuries when other items were not exported (Gezahegne Taddese, 2001). It has been also suggested that no country in the world may have ancient beekeeping as Ethiopia (Fichtl and Admasu Adi, 1994; Gezahegne Tadesse, 2001b).

The topography of Ethiopia is complex and the altitude varies from the lowest point below 126 m to the highest point 4620 meters above sea level (Amssalu Bezabeh *et al.,* 2001).

These variable agro -ecological zones lead to huge diversification in species of fauna and flora. Its forests and woodlands contain diverse plant species that provide high amount of nectar and pollen to foraging bees (Girma Deffar, 1998). These potential makes the country the largest honey producer in Africa. Furthermore, considerable amount of wax is produced in the country. Regardless of its potential, Ethiopia is fourth in beeswax and tenth in honey production at global level (Girma Deffar, 1998). The country is not only agro-climatically diverse, but also a center of diversity for different species of plant and animal resources including honeybee races. The geographical races of honeybees found in the country, have been studied by different scientists and the

existence of different geographical races was reported. Generally, most of the reports were not supportive of each other. According to Amssalu Bezabeh *et al*. (2004) the multivariate analysis of the morphometric characters revealed the existence of five statistically discrete populations occupying different ecologies in the country: *A.m. jemenitica*, in the northwest and eastern arid and semiarid lowlands, *A.m*. *scutellata* in the west, south and southwest humid midlands, *A.m*. *bandansii,* in the central moist highlands, *A.m.monticola* in the northern mountainous highlands and "*Woyi-gambela*" in south western semiarid to sub humid lowland parts of the country.

Research by Marina *et al.* (2011) brought a controversial idea about the different honey bee sub species of Ethiopia. They described a new subspecies, *Apis mellifera simensis*, on the basis of morphometric analyses. These authors also explained that Ethiopian bees are clearly distinct and statistically separable from honeybees belonging to neighboring subspecies in eastern Africa. Moreover, considerable variation of morphological characters in relation to altitude is present in the samples under analysis, but there are no statistically separable subgroups within this population and concluded that there is no indication for the presence of more than one subspecies of honey bee in Ethiopia. This indicated that there should be additional efforts to characterize in details and delineate the geographical distribution of the bee races.

Three geographical races of honeybees (*A.m.jemenitica*, *A.m.scutellata* and *A.m. woyi Gambela*) are reported to exist in different ecological zones of the region (Amssalu Bezabeh, 2002). Among these, *A.m. scutellata* is widely distributed in the region. Behaviorally, the migratory tendency of scutellata is very low.

Beekeepers, honey and beeswax collectors, retailers, tej brewers, processors and exporters are identified to be the key actors in the value chain and/or marketing system of the honey sub-sector. Three principal channels (the tej brewery, honey processing and exporting and beeswax) were identified in the value chain. These channels are complex and found to be interconnected which is explaining the absence of organized marketing channels/systems and lack of formal linkages among the actors in Ethiopia. So the objective of the study was to analyze the productivity of honey marketing in Ada berga District.

2. PROBLEM STATEMENT

In spite of great demand for honey in our country, it was discovered that the supply of the honey and its products seem not enough to meet the demand in the market in the area of study.

3. METHODOLOGY

3.1 Description of the study area

The study was conducted in Ada Berga district which is located in Oromia National Regional State, West shoa administrative zone at about 88 Kms West of Addis Ababa and bordered by Walmara in the South , Ejerie in the Southwest, Meta Robi in the West, and Mugher River in the North and East which separates the district from North Shoa zone. The altitude extends from 1,400 to 3,500 meters above sea level.

3.2. Sampling techniques

Purposive sampling technique was used to select four (4) PAS namely, Gatira Nabe, Sire Barga , Sambaro Sago and Haro Boro, on the basis of the potential of bee keeping. From these PAs, a total of 160 households who keeps at least 3 and above bee hives were selected randomly.

3.3. Method of data collection

Well-structured questionnaire was used to collect data used in this study. The questionnaire elicited information on age, gender, marital status, level of education, religion , sex and years of experience in bee keeping as demographic characteristics of the respondents while further information was collected on harvesting time, dearth period and amount of honey harvested, honey storage facilities, honey selling situation and other relevant information.

3.4. Method of data Analysis

Data were analyzed using descriptive statistics such as frequency distribution and percentages.

4. RESULTS AND DISCUSSIONS

Majority (38.1%) in mid land and 7.5% both in the high land and low land were in the age range from 31 to 50 and 13.8% in the mid land, 5% in the low land and 4.4% in the high land of the respondents were above 50 years old respectively. The survey result showed that farmers in the most productive age were actively engaged in beekeeping activities. In terms of educational back ground, about 8.1% ,28.1% and, 4.4% of the beekeepers in the high land, mid land, and lowland, respectively were within the grade level of 1-6, while 3.8% in the high land,10% in the mid land, and 2.5 % in the low land beekeepers were within the grade level of 7-10 and 0.6% in the high land,1.8 % in the mid land and 1.3% in the low land , beekeepers were grade 11 and above. Majority of beekeepers sampled were illiterate (the illiterate level of the respondents might influence their operational

efficiency.)

The major actors in the honey value chain in the study area are producers, tej house, consumers and honey Wholesalers. Producers are mainly smallholder farmers who supply their honey to tej house, wholesalers and consumers. Wholesalers are found in Inchini and Mugher town and go to beekeepers house randomly to buy honey. In the study area out of the total respondents about 17.5% of beekeepers used their honey for home consumption. 81.5% of beekeepers supply their honey for marketing; from the total 81.5 % of beekeepers 50.6% sell to tej house, 15.0% to wholesalers and 16.9 % directly to consumers. Most beekeepers in the study area have selling their honey to wholesaler's advantages than the others, because they obtained both information and customers. The price of honey in the study area as reported by the sample bee keepers is basically depend on color, quality, and source as request appears to remain relatively constant throughout the year. The color of honey in the study area was red yellow and somewhat white. The yellow color honey is most preferred than red. Yellow honey is mostly produced in the low land area. It is lowest during harvesting season of honey (80ETB/kg). Sometimes, the price rises in the months following the soon after harvesting season, of honey (110 ETB/kg). `

Beekeepers store and sell their honey in villages and town markets in whatever containers are available.

The quality of honey is affected by the type of storage container. About 99.4% of beekeepers in the study area used traditional containers which are exactly not appropriate to store honey. Example: clay pot. Honey yield varied with hive types and agro-ecologies.

As a result, they harvested an average honey yield kg/hive 3 ± 1.12 in the high land, 10 ± 1.05 in the mid land and 6.5±.67 in the low land from traditional, 7.6± 1.11 in the high land, 18.8 ± 3.11 in the mid land, and 12.8 ± .66 in the low land from transitional, and 14.9± 2.9 in the high land, 25 ± 1.92 in the mid land and 17.64 ± 2.07 in the low land from frame hive. In addition, we have understood that agro-ecology was also causing a significant difference ($P<0.05$) productivity of the colonies in terms of honey yield. Accordingly, low and mid land agro ecologies were higher in honey productivity (in the amount of honey harvested) than the high land. This result coupled with field observations, low and mid land agro-ecologies are most favorable for honey production in the study area. The mid land and the low land of the study area have opportunities such as dynamic horticultural crops, no cold weather condition for bees.

It has been a clear phenomenon that lack of appropriate marketing infrastructure is now well developed not only in the study area but also in the country as well. In addition, the simultaneous emphasis given by the government and all stakeholders have been observed to be at its infant stage and hope will continue as a major bottleneck in this sector unless and otherwise appropriate interventions are going to be put in place.

According to respondent beekeepers and our observations at various levels, lack of appropriate hive products' marketing place, lack of market information, absence or lack of known market route or channel, buyer dependent price settings, lack or inappropriate functioning of marketing cooperatives, less awareness on post-harvest handling of their produce and so on have been identified as major constraints in the marketing system. 1.3% in the high land, 4.4% in the mid land and 3.1% in the low land of beekeepers respond the problem of honey market in the study area. In this case, we have failed to access the channel where the produce from the study area is going. Off course, even if it has been explained that the majority of the local produce is going to local consumers and tej brewers, we generally failed to follow and characterize the value chain in the study area.

At this point, we would like to suggest that exploitation of the potential in beekeeping not only in the study area but also in the country has to be organized through an appropriate marketing infrastructure and channel. Generally, the country is believed to be a leading honey producing country in the continent with plenty of opportunities in the future.

However, establishment and development of appropriate marketing infrastructures should be practiced in order to enable the value chain actors access the produce and contribute to the national GDP through its export earnings.

5. CONCLUSION

Findings from the study shows that honey marketers in the study area were dominated by young, married and illiterate beekeepers. The challenges faced by Ada berga beekeepers have no district level and village level market center to sell honey.

6. RECOMMENDATIONS

Based on result and conclusion from this study, it is commanding to make the following recommendation in order to improve the productivity of honey marketing in the study area.

- Honey marketers should be educated on the marketing arrangements that will develop honey marketing. There is need to prepare the public on the importance of honey storage materials

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