Review on Challenges and Opportunities of Honey Marketing in Ethiopia

Getahun Tekle      Samuel Weldeyohanis

Abstract
Agriculture is the major supplier of raw materials to food processing, beverage and textile industries. It accounts for more than 85% of the labor force and 90% of the export earnings. Ethiopia is endowed with variety of ecological and climatic condition. It is also home to some of the most diverse flora and fauna in Africa. The forests and woodlands of the country contain diverse plant species which is home to nectar and pollen. The beekeeping subsector has been an integral part of agriculture in Ethiopia. It has been contributing to the household income and poverty alleviation and nation al economy through export. The country has huge apicultural resources that made it the leading honey and beeswax producer in Africa. Moreover, Ethiopia is a country where apicultural research is being conducted in a coordinated manner under the national agricultural research system. This makes the country one of the largest honey producer in the continent and to rank fourth in the world in wax production. Honey is the natural sweet substance, produced by honeybees from the nectar of plants or from secretions of living parts of plants, or excretions of plant-sucking insects on the living parts of plants, which the bees collect, transform by combining with specific substances of their own, deposit, dehydrate, store and leave in honeycombs to ripen and mature. This study was aimed at reviewing Honey production and marketing in Ethiopia, with specific objectives of reviewing the production level of honey in Ethiopia, marketing and actors in honey value chain as well as the constraints and opportunities of honey production and marketing in Ethiopia. The data were also collected from secondary sources mainly from FAOSTAT, CSA and different published materials on Honey value chain in Ethiopia. It has been revealed that the country’s beekeeping subsector is mainly practiced using traditional basket hives with low productivity. However, attempts by various investigators and development actors showed that both the production and quality can be improved in terms of transforming the beekeeping system, processing and marketing. This review paper also tried to address both the domestic and international honey marketing and identified some of the major challenges that are obstacles to the possible maximization of benefits by producers and the whole national economy.

Keywords: Beekeeping, Ethiopia, Honey, Marketing, value chain actors

1. INTRODUCTION
1.1. Background of the review
Ethiopia is the second-most populous country in Sub-Saharan Africa with a population of 96.5 million, and population growth rate of 2.5% in 2014 (WB, 2015) Agriculture dominates the Ethiopian economy. It is the major supplier of raw materials to food processing, beverage and textile industries. It accounts for more than 85% of the labor force and 90% of the export earnings (MOFED 2005).

The Ethiopian agricultural sector has the potential to drive the country’s economic development, which could translate into a reduction in poverty and could increase the food security of its people (USAID, 2012). The beekeeping sub-sector has been an integral part of agriculture in Ethiopia. The country has a substantial potential for apiculture development, with beekeeping being a traditional important off-farm activity for an estimated 1.7 million rural households(USAID, AGP-AMDe, 2012). Beekeeping with its huge potentials to save the natural forests and to earn subsistence income for the rural poor is one of the agricultural sectors believed to serve as an instrument for climate change adaptation (FAO, 2012)

The beekeeping subsector has been an integral part of agriculture in Ethiopia. It has been contributing to the household income and poverty alleviation and national economy through export. The country has huge apicultural resources that made it the leading honey and beeswax producer in Africa. Moreover, Ethiopia is a country where apicultural research is being conducted in a coordinated manner under the national agricultural research system.

Agriculture is a promising off-farm enterprise, which directly and indirectly contributes to smallholder’s income in particular and nation’s economy in general. It has significant role in generating and diversifying the income of subsistence Ethiopian smallholder farmer’s mainly the small land holders and landless (Gezahagn, 2001). Ethiopia is known for its tremendous variation of agro-climatic conditions and biodiversity which favored the existence of diversified honeybee flora and huge number of honeybee colonies (Adgaba, 2007).

Ethiopia is one of the top 10 producers of honey in the world, and it is the largest one in Africa (USAID, AGP-AMD, 2012). The country’s potential for honey production, the variety of natural honey flavors associated with the country’s diverse sources of bee forage, and Ethiopian honey’s desirable qualities, such as low moisture content, have been widely recognized.

There is a need for reviewing Honey production for better understanding of the status of production of
honey, the marketing of honey and value chain actors of honey in the case of Ethiopia. This review will help for generating the topic for improvement on the production and marketing situation of the honey in general as national or local level. Based on this, the following general and specific objectives are set outs for review of honey production and marketing in Ethiopia.

1.2. Objectives of the review

1. To review marketing of honey and the major actors of honey value chain in Ethiopia
2. To review the constraints and opportunities of honey marketing in Ethiopia

2. Review of Literatures and Discussions

2.1. Ethiopian honey value chain and competition

According to Cost-Benefit Analysis of AMDe Honey Value Chain in Ethiopia final report which was held on July, 2012, the following four levels were conceded as the main honey value chain actors which are the simplest way to analyze the stages at which key players compete for honey in the market in terms of sales or purchases of honey.

**Level 1: Producers (beekeepers).** At this level of the value chain, many beekeepers are engaged in honey production, actively taking advantage of the Ethiopian honey market’s high domestic demand and relatively low supply (when compared with demand). Beekeepers actively seek the best possible (highest) prices for honey.

**Level 2: Direct buyers of honey.** Honey collectors/traders, cooperatives, tej houses, and agribusinesses/processors that buy directly from beekeepers (e.g., Beza Mar buys honey from beekeepers in SNNPR). This level includes a high number of participants in the honey value chain who compete with each other in terms of the purchased quantity, quality, and price of honey. Some of these actors, such as Beza Mar, have tried to establish vertical integration in honey market by establishing their own beekeepers to supply their commercial needs. In addition, some value chain participants at this level have tried to establish their own commercial apiaries to ensure a constant honey supply and to minimize the risk associated with increasing honey prices in the domestic market.

**Level 3: Agribusiness companies that market honey in domestic and export markets and honey wholesalers in Addis Ababa (Mercato).** This level of the honey value chain also includes multiple participants. Wholesalers in Addis Ababa (Mercato) and agribusiness companies that cater to domestic markets compete with agribusinesses that are engaged in sales for export markets in terms of quantity (reliable and timely supply), quality, and price of honey.

**Level 4: Domestic retail honey sellers (supermarkets, retail stores) and honey exporters (agribusiness companies/processors).** Many participants at this level compete with each other in terms of quantity, quality, and price of honey. Additionally, some agribusinesses/processors that supply honey for export markets are also engaged in sales within the domestic market, so they compete with the wholesalers in Level 3.

According to the study by (Biruk, 2015) in wolaita Zone of SNNPR, The major actors participated in the honey value chain were producers, collectors, wholesalers, retailers, cooperatives, processors and consumers with the higher producers marketing margin of 90.67% for the channel that passes through cooperatives. The main value adding activities undertaken at each stage of the chain were transporting, sorting and packaging, filtering and processing. He identified and define the honey value chain actors as follows:;

**Producers:** are the major actors who perform most of the value chain functions from the procurement of the inputs to harvesting and marketing. The major value chain functions that honey producers perform in the study area include sorting, filtering, packaging and transporting. Most of the honey producers in the study area sell their products in the markets found in the zone and neighbor markets of Hadiya zone.

**Collectors:** These are farmer traders who collects honey at farm get level from the producers and sell it to wholesalers and retailers in the district market.

**Wholesalers:** These actors buy large quantities of honey either from collectors or producers ata large quantity and resell to other traders.

**Retailers:** These are key actors in honey value chain in Zone. They connect the wholesalers and urban consumers by offering according to the requirement and purchasing power of the buyers.

**Processors:** These are retailers in both in urban and rural areas who purchase crude honey from wholesalers and supply honey to consumers in the form of brewery locally known as tej

**Cooperatives:** These are the major actors who directly participate in marketing of honey and also support honey producers at all. These actors organize the farmer households to regularly supply filtered honey to them and then sell it to consumers. They also give trainings on how to use it and supply quality honey to them.

**Consumers:** these are the final actors of the chain who buy the product for their own consumption purpose.
They may afford it either as processed (tej) form or as non-processed form.

Amanuel (2011) identifies the honey value chain actors participated and these includes: honey producers, retailers, traders, wholesalers, processors, supermarkets and tej brewers while the servis providers were Organic inspection and certification agencies, Forest products control committee, Microfinance Institutions, Transporters and Non-Government Organizations.

2.2. HONEY MARKETING AND PERFORMANCE OF ACTORS IN ETHIOPIA

According to reports from MoARD (2003) cited in Gemechis (2015), only about 10% of the honey produced in the in Ethiopia is consumed by the beekeeping households while the remaining 90% is sold for income generation and of this amount, it is estimated that 80% is used for tej brewing (Hartmann, 2004).

According to (Mengistu, 2011), domestic honey consumption is increasing due to highly increasing demand for tej, increased consumption of processed table honey in most urban areas and increased demand for honey in the local industries.

According to Assefa (2009) and Tessega (2009), the domestic honey market starts at the smallholder beekeepers level, who majorly sell crude honey to collectors in the nearest town/village markets. Therefore, the producers are price takers. The collectors mainly pass the honey to the whole sellers in big cities and towns, though a significant amount of honey they collect also goes to local tej brewers, processors and other consumers. The whole sellers are largely situated in cities and big towns and they distribute the honey they get from collectors to retailers, tej/brewers, processors and consumers.

In some areas, beekeepers form producing and marketing cooperatives to cope with the market challenge they face. The cooperatives collect crude honey from their members and sell the semi processed honey to processing companies and other intermediaries who buy in bulk and retail. However, in many cases the cooperatives lack proper collection, storage and transportation facilities and hence compromise the quality of the honey. They also have low business concept (market information gathering and analysis, pricing, promotion, etc) to be competitive (Tessega, 2009).

The whole domestic honey market lacks proper structure and legality. It is of lengthy chain of actors that widens gap for the access of producers to bigger and better paying markets. So, the beekeepers complain the business as not rewarding and even lacking the market for their product, while the consumers see the ever increasing price of honey as unfair. Moreover, the market faces challenges like smuggling that pushes the legal actors out of market. In many cases, adulteration of honey has been a frustrating factor for both the producers and legal buyers and sellers as the traceability and accountability is hardly possible.

The honey price in the domestic market is mostly advanced than the international honey price which makes honey export less cost-effective in Ethiopia (Mengistu, 2011) and several of these companies have dropped out of the international honey trade and are now targeting the local markets which are still attractive.

According to the study by (Awraris et.al, 2012) on honey production the case of in Kaffa, Sheka and Bench-Maji zones of Ethiopia, honey is used as a source of cash income and food that is, home consumption. About 97% of the respondents reported to sell their produce retaining some of it for home consumption. This study reveals that, honey production contributes about 50% to the total household cash income of small scale farmers involved in beekeeping. Their major buyers are ‘Tej’ brewers and middle merchants in the nearby markets. For 77% of the farmers market price of honey is promising. However, more than 97% of respondents mentioned the price is subjected to fluctuation with seasons. As usual, honey price decrease during main harvesting season in April and increase in other months of the year. The average price of honey from traditional, intermediate and improved box hives was 35, 35 and 55 ETB per kg respectively.

The study on Assessment of constraints and opportunities of honey production in Wonchi district South West Shewa Zone of Oromia, Ethiopia by (Taye and Marco, 2014), Beekeepers of the study area sell their honey at different places and have different costumers. According to the study by these authors, producers mostly sell their honey to local honey traders (33%), beekeepers association (27.8%), local honey consumers (22%), and to tourists (17.2%).

According to the study by (Beyene and David, 2007), Beekeepers sell the largest proportion of their honey during harvest at low price mainly to meet their demand for cash to pay taxes, debts and other social obligation. According to the interviewed farmers, the price of honey is also governed by different factors such as distance from market (28%), quality of honey (25%), consumers’ preference (20%), color of honey (15%), and test of honey (12%).

2.3. Challenges and opportunities of Honey marketing in Ethiopia

2.3.1. Major constraints of honey marketing

Lack of financial resources (such as access to loans):- for beekeepers to obtain modern beehives and other tools necessary to increase honey production. Beekeepers have little access to financial products that would allow them to switch from traditional beehives to improved versions. Moving to transitional and modern
beehives requires an initial investment of capital that most beekeepers do not have, so they continue to produce honey using traditional methods.

**Supply-related barriers to properly managing modern beehives:** The supply of tools necessary to manage modern beehives is not readily available. For instance, some beekeepers possess modern beehives (just boxes), but they lack the tools required for the proper management of these beehives (such as a smoker, queen excluder, or honey extractor).

**Lack of proper training regarding efficient management of a modern-style apiary.** In general, the beekeepers who do have modern beehives do not have the skills or knowledge needed to properly manage them, and training is not readily available. Therefore, the beekeepers tend to rely on ineffective extractive harvesting methods and inappropriate tools for this type of hive. Additionally, they usually do not provide additional feed (water and sugar syrup or flour) during droughts and have little knowledge about prevailing honey-quality requirements in export markets.

**Other associated obstacles.** Additional barriers include the disappearance of bee-foraging areas due to crop intensification and the growing use of agrochemicals; extreme weather conditions in some parts of Ethiopia (droughts); poor transportation infrastructure; weak knowledge of proper storage techniques (at the farm and local honey collectors'/traders’ levels); problems with packaging, especially at the processors’ level (e.g., difficulty obtaining a reliable supply of glass jars); weak access to profitable export markets due to low productivity; limited knowledge of export-market requirements; and lack of or weak connections with processors.

The key barriers to successfully expanding the Ethiopian honey value chain primarily lay at the supply side of this commodity. Ethiopian honey production is insufficient in terms of quantity as well as quality. To meet the growing domestic demand as well as a likely profitable demand in the export markets, these supply-side issues need to be addressed.

According to Tezera (2013), who investigates the honey market constraints and opportunities in Amhara regional state Ethiopia, identifies the major constraints of honey marketing which affects marketing efficiency. According to this author, the level of honey market was indicated by its low level of honey extraction and processing, storage and transportation materials, means of transportation of honey to the market, flow of market information, honey transaction measurements etc are identified. The identified constraints were lack of well-organized market channels, lack of rural market infrastructure, lack of current market information flow, very limited or absence of credit extension and training, actors lack of skill in honey processing handling and marketing, lack of strong business oriented producersCooperative etc.

Additionally, Bezabih (2010) identified that, the major constraints affecting honey marketing in Ethiopia include; like lack of organized market, low domestic demand for processed honey, and absence of incentive for high quality honey, lack of market information, low product quality due to poor harvesting and handling techniques poor infrastructure, lack of financial resource, lack of processing equipment and skill and/or packaging etc.

### 2.3.2. Major opportunities for honey marketing in Ethiopia

As it was stated by Tezera(2013), the major Opportunities of honey marketing are the Integration of honey production and marketing with water shed soil and water conservation and reforestation program, organizing unemployed youth in honey production and marketing, the construction of honey museum and fabrics, the increment of tourists and guests to celebrate Gena etc.

### 3. Conclusion and Recommendations

#### 3.1. Conclusion

Generally, Ethiopia has huge potential, adequate natural resources, a long tradition and culture of beekeeping (honey production) which is clearly observed in the last few years with significant increment, even though the subsector is still practicing with traditional low productive systems. Regarding to the production and marketing of the Ethiopian honey industry, various investigations in particular have identified the problems faced the sector. It is apparent that a lot more is to be done in improving the quality of the honey produced. Again, the market needs fundamental change in its structure and functioning systems to address the accessibility of the better price market for the producers and better quality honey for a fair price for the consumers. Moreover, the legality issue in the honey market needs thorough consideration to tackle problems like smuggling and adulteration so that the country can benefit from the expanding export market.

#### 3.2. RECOMMENDATION

Based on the review from different foundations on honey production and marketing in Ethiopia, the following conceivable endorsements (recommendations) can be promoted:

- Strengthening the extension activity of the country in beekeeping to exploit the potential of the sector as a whole.
- Introduction of full package improved beekeeping technologies with adequate practical skill training.


Eradication of exotic poisonous honeybee plants and replace with suitable indigenous hedge plants which also serve as bee forages.

Conduct study on the existing apiculture input supply system to develop innovative methods of input supply system.

Honeybee diseases and pests which were explained locally by farmers should be confirmed by scientific research.

Further studies shall be under taken for confirming poisonous plant to honey bees.

Designing effective honeybee enemies controlling methods.

Improve the utilization of stingless bee’s resources: effort should be made how to domesticate and utilize stingless bee resources without damaging the colony and also their nest.

Improving pre- and post-harvest handling of bee products.

Develop a sense of partnership among all market actors along the value chain to improve the flow of information among them for sharing one channel experience.

Engaging in discussions with stakeholders on how to improve the system of value chain could be better.

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