

## LOCAL HONEY PRODUCTION ACTIVITIES AND THEIR SIGNIFICANCE FOR LOCAL PEOPLE: A CASE OF MOUNTAIN FOREST AREA OF SOUTHWESTERN ETHIOPIA

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**ABSTRACT** This article focuses on honey production taking place in mountain forest area of southwestern Ethiopia and discusses the roles and relevance that local people see in their way of honey production and the honey they harvest. The honey production in Ethiopia has recently been attracting attention of various agencies as a tool for revitalizing Ethiopian economy, reducing poverty, and conserving the forests. As expectations for the honey production rise, many researchers have worked all over Ethiopia to improve the productivity and efficiency of current production process. However, most of previous research emphasize too much on improving productivity and efficiency and disregard the roles and relevance that the local people see in the local method of honey production. This article first illustrates local honey production process in detail and points out local honey production serves a place of exchanging knowledge and technique regarding honey production and strengthens social relationships and honey producers value honey they harvested by the local method.

**Key Words:** Honey production; Non-timber forest product; Local knowledge; Oromo; Ethiopia.

### INTRODUCTION

In this paper, I present the local way of honey production conducted in mountain forest area of southwestern Ethiopia and point out the roles and relevance that local people see in their way and the honey they harvest.

Honey production in Ethiopia has recently attracted the attention of various agencies because of its potential to help revitalize the Ethiopian economy, reduce poverty, and conserve forests. Ethiopia is believed to possess high potential in producing the honey. Ethiopia is currently ranked as the largest honey producer in Africa and the third largest worldwide by producing 45,300 t of honey in 2010 (FAOSTAT, 2012). She is the country with the longest tradition of honey production in the world; it is presumed that beekeeping in Ethiopia started about 5,000 years ago (Fichtl & Admasu, 1994). Also she has diverse habitat and flora for honeybees (Mohammed et al., 2006).

The honey produced in Ethiopia is expected to become a major commodity for acquiring foreign currency to improve the Ethiopian economy. Although Ethiopia does not have sufficient infrastructure for transporting and storing goods, the long shelf life of honey makes it an attractive export for the country. The country already earns an average of 420 million ETB<sup>(1)</sup> (35 million USD) annually from the sale of honey (Gidey & Kibrom, 2010). This figure is expected to increase in the future (Paulos, 2011). Indeed, in 2011, the European Court of Justice ruled

that honey containing pollen from genetically modified plants could not be sold in the European Union (Aravindakshan et al., 2011; Gallmann & Thomas, 2012), which gives Ethiopia an advantage over other major honey-exporting countries since most Ethiopian honey is free of genetically modified plants as well as pesticides and other agrochemicals (Hartmann, 2004).

Honey production is also expected to provide an opportunity for low-income farmers to supplement their earnings. Honey production requires little investment, land, and labor, and individuals can attain significant production levels. Unlike many other commodities, honey products generate multiple market opportunities, and are also nutritious foods. In addition, the process of production is not in competition with any other form of agriculture (Aravindakshan et al., 2011; Gallmann & Thomas, 2012).

Honey production is also considered a natural resource-conserving and environmentally friendly activity (Gidey & Mekonen, 2010). The honey production process does not require extra land. Instead of clearing forest, as many do to grow crops, the local people need to maintain the forest to produce a substantial amount of honey. Thus, honey production may also help conserve forests in Ethiopia, which lost 141,000 ha of forest annually between 1996 and 2006 (FAO, 2007). Currently, the country has only 3% forest coverage (JICA, 2008).

As expectations for the honey production rise, many researchers have been working all over Ethiopia, including southwest (e.g., Chala et al., 2012; Awraris et al., 2012, Gallmann & Thomas, 2012), southeast (e.g., Solomon, 2009), central highland (e.g., Melaku et al., 2008; Workneh 2011), west (e.g., Mathewos et al., 2003), and north (e.g., Taddele & Nejdán, 2008; Ejigu et al., 2009; Gidey & Kibrom, 2010; Gidey & Mekonen, 2010) to document current praxis on honey production and point out constrains in order to improve the productivity and efficiency of current production process. All researchers agree that although Ethiopia has high potential in honey production, introduction and implementation of modern apiculture knowledge and technology are highly needed. Some researchers even insist on “traditional methods need to be replaced by the improved and modern scientific methods for better management” (Gidey & Mekonen, 2010: 85). However, some researchers report newly introduced modern beehive has not been spread and utilized. Gidey & Mekonen (2010) report that new modern beehive has not gained wide popularity. Also Gallmann & Thomas (2012) reports that “a few years ago, NGO’s, together with the government, initiated the construction and distribution of 150,000 frame hives. To this day, the legacy to this ambitious program could not be seen in Ethiopian beekeeping. The hives simply disappeared” (Gallmann & Thomas, 2012: 10).

I consider almost all previous researches emphasize too much on improving productivity and efficiency of the honey production. Gidey & Mekonen (2010) explain a reason behind unpopularity of newly introduced modern beehive as “high cost and lack of awareness” (Gidey & Mekonen, 2010: 86) but I believe major reason behind the phenomenon is complete disregard of the roles and relevance that the local people see in the local method of honey production. This phenomenon reminds me of failure of afforestation project took place in late 1980s in northern Ethiopia. Matsumura (2005) analyzed the cause of failure was

total neglect of pluralistic values that society and local people give to trees while the project only cared the number and total area of trees planted. It maybe true that the probability of adoption of a new technology depends on the difference in profitability between the new and old technologies and farmers' recognition of the advantages and efficiency of the new technology as Gidey & Kibrom (2010) emphasize; however, if local people find significance in inefficient process of the honey production, then it would be difficult task to modernize the process. In worst case, the project will be totally neglected or destroyed. I also see high potential in honey production in Ethiopia as other researchers do but in order to improve the honey production, we must find out the roles and relevance that local people see in their way of honey production and the honey they harvested.

### OVERVIEW OF THE RESEARCH SITE

Research was conducted in the Gera District<sup>(2)</sup> located in the mountainous forest area of the western Oromia Region of Ethiopia. Gera has rugged terrain with an altitude ranging from about 1500 m to 2900 m. It is about 65 km west of Jimma city, one of the major cities of southwestern Ethiopia (Fig. 1). The average annual maximum and minimum temperatures are 26°C and 10°C, respectively. Average annual precipitation over 21 years from 1987 to 2008 was 1700 mm. Due to this favorable climate, Gera has 113,514 ha of forest (Cheng et al., 1998). Dense forests cover most of the southern parts of Gera, where the altitude is below 2000 m. On the other hand, farmland expands widely in the north, where

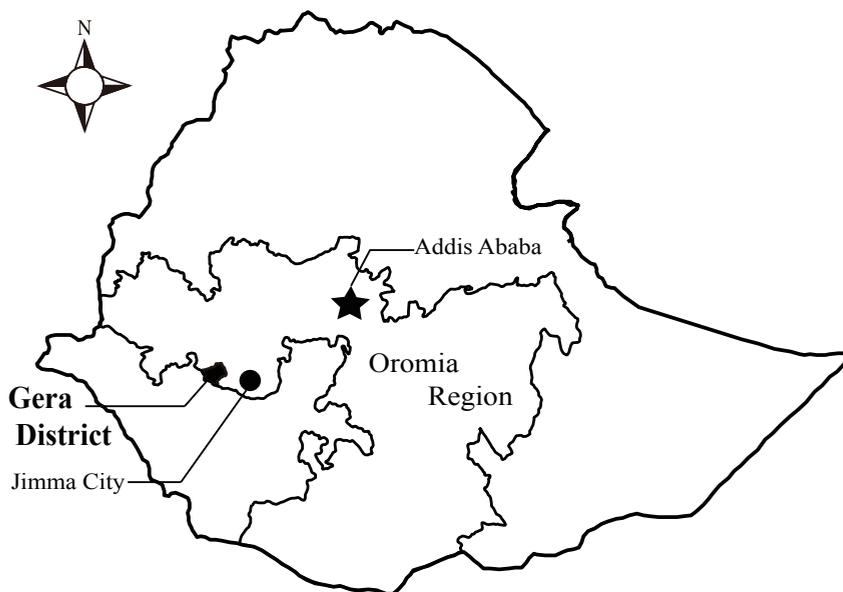
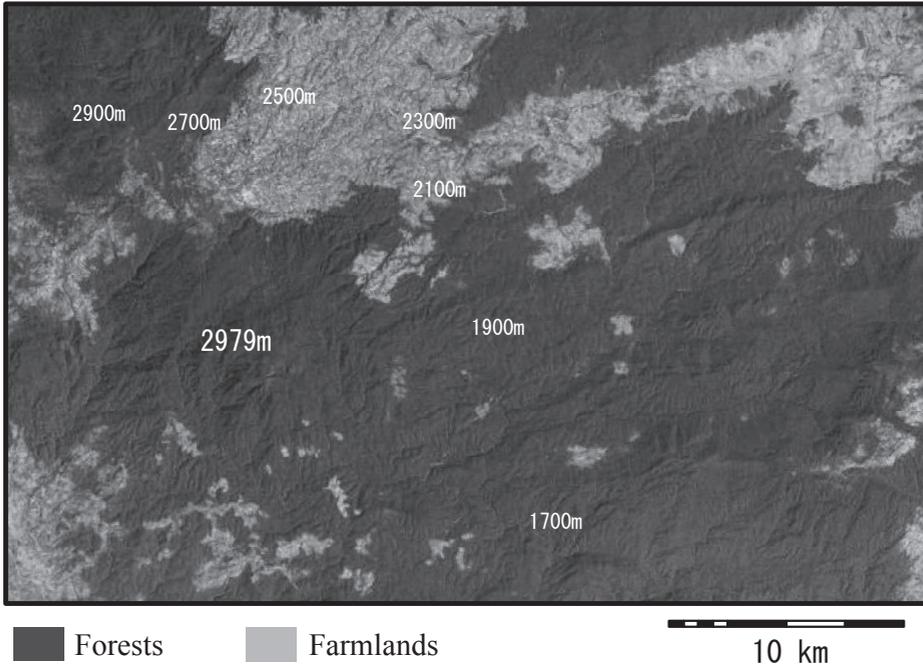


Fig. 1. Location of Gera District.



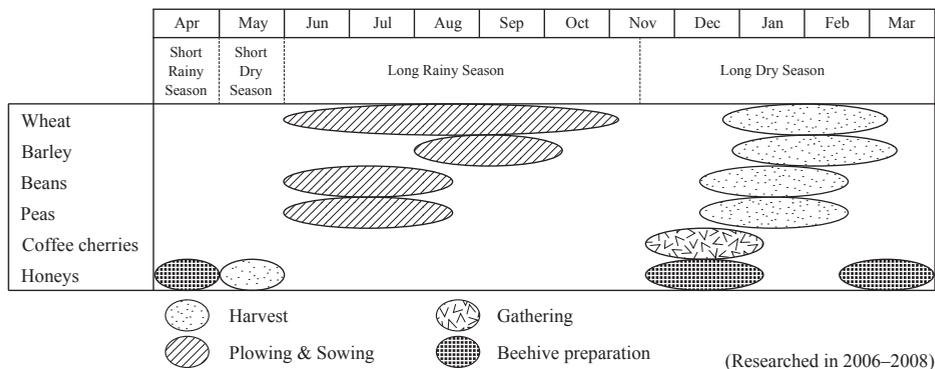
**Fig. 2.** Geographical features of Gera.

the altitude reaches above 2000 m (Fig. 2). There are gently distinguishable dry and rainy seasons in the area. The short rainy season begins at the end of March and lasts until the end of April. The short dry season occurs for about a month in May and the long rainy season starts in the beginning of June and lasts until the middle of November. The long dry season starts in the middle of November and ends at the end of March.

Gera has been a major honey-production area throughout history (Mohammed, 1990). Arnold Henry Savage Landor, the English explorer traveled from Djibouti to Cape Verde at the end of the 19th century, wrote:

One great industry in this country was the collection of honey in cylinders made of tree-bark, strengthened by basket-work all round, and enclosing the beehives. Many of these cylinders could be seen suspended from the most inaccessible top branches of the highest trees, especially the *uarca*. The honey produced was quite good, but dark in colour (Landor, 1907: 189).

Antonio Cecchi, an Italian explorer who visited Gera in the middle of 19th century, reported that Gera was very abundant in honey and that he exchanged a bar of salt for 15–16 kg of honey. He also noted that there were eight types of honey<sup>(3)</sup> and that honey called *ebichaa* was the most appreciated among them. This honey was specifically used to brew mead for the royal family of Gera<sup>(4)</sup> (Cecchi, 1886). Mohammed (1990: 118) noted that “although honey was plentiful throughout the



**Fig. 3.** Calendars of livelihood activities in Gera.

Gibe [basin]<sup>(5)</sup> it was Gera honey which enjoyed the reputation of great excellence.”

People living in Gera now mostly farm, keep small numbers of cattle, gather coffee cherries<sup>(6)</sup> from the forest, and occasionally produce honey. According to census figures released in 1994, the total population of Gera was 69,764 (CSA, 1996). More than 90% of the population speaks Oromo, a Cushitic language. Many people live in the northern parts of Gera, where crop fields have expanded. They cultivate farmland and sow wheat, barley, broad beans, and peas during the long rainy season, and start harvesting them at the end of December (Fig. 3). They also gather coffee cherries and produce honey in the forests in the southern parts of Gera, which is about 25 km away from northern Gera. They stay in the forest for a month or two at the end of the long rainy season. While they are in the forest, they prepare beehives. They place beehives on trees before the honeybee swarms at the beginning of the short dry season. The honey harvest takes place in the short dry season. About 34 kg of honey may be produced in a good year by one household in this area (JICA & Belete-Gera Participatory Forest Management Project, 2005). In 2008, white honey called *boxxo*, which local people currently recognize as being of very high quality, was sold at 35 ETB (about 3 USD) per kg at local market. Based on this rate, one household would be able to earn 1,190 ETB (about 99 USD) in a good year (Ito, 2011; 2012).

#### THE LOCAL PRINCIPLE AND ARRANGEMENT APPLIED TO HONEY PRODUCTION

Many local people who produce honey have landholding rights, which allow them to use the forest. They seem to have obtained the right after the land reform of 1975, which nationalized all of the land in Ethiopia and turned tenants into landholders. Since then, villages have taken charge of land allocation and distribution (PMAC, 1975: 95). I conducted interviews in one village with 884 households in 2008. The interviews, which were conducted with 203 households, revealed that 98 households, nearly half of those I interviewed, have a holding

right. An informant, M, who is about 50 years old, has a holding right to 105 ha of forest where he gathers coffee cherries and produce honey. According to M, his father and his father's friend (hereafter, AD) asked a leader of the village where the forest is located to obtain the right. The leader agreed on the condition that each of them has to donate one *farasra*, about 17 kg, of honey every year to the leader.<sup>(7)</sup> When M's father died, M inherited the right with his brother and sister but M's brother and sister did not want to go to the forest. Thus, M practically controls the area exclusively by himself nowadays. After M inherited the right, M and AD decided to draw a distinct border in the forest to separate the areas for M and AD to use. This made M's forest area 105 ha. After the current government came into power, M started to pay the Gera administration

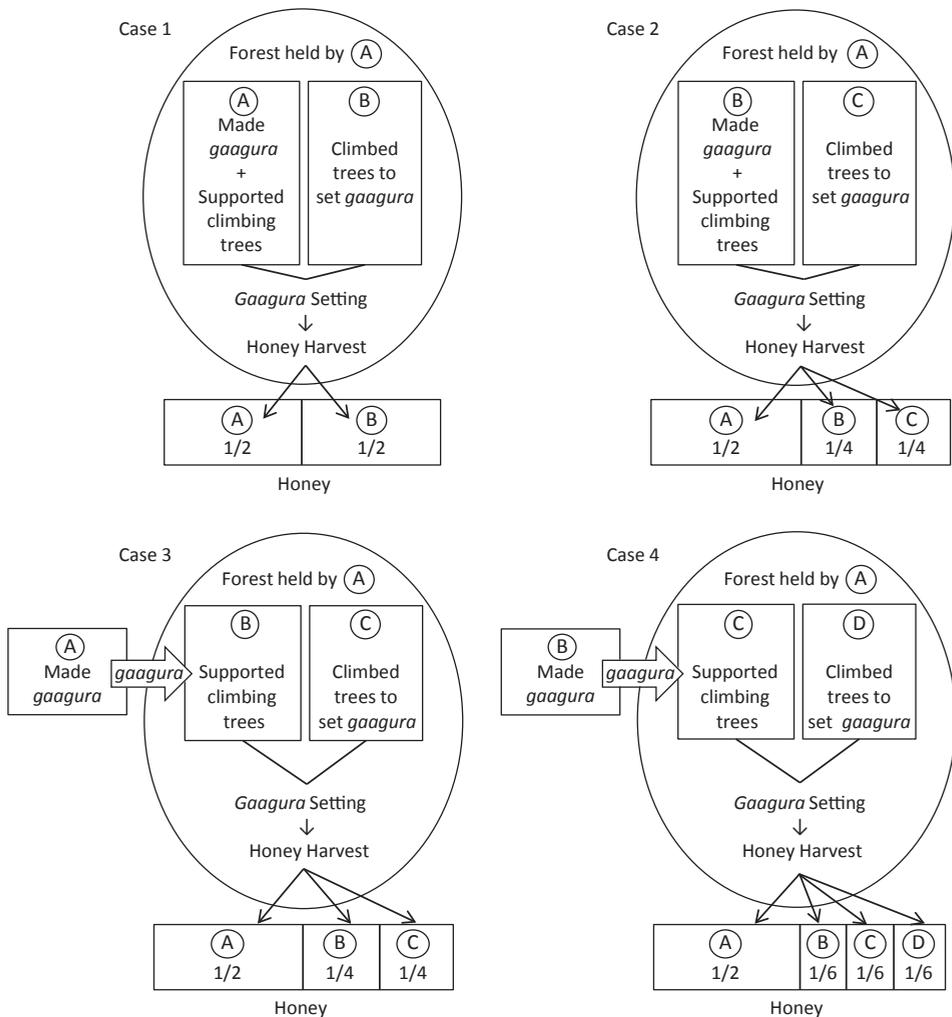


Fig. 4. Honey Distribution under *yakuto*.

200 ETB a year as a tax for holding the right and stopped giving honey to the village leader. Hereafter in this paper, “the right” refers to the holding right of the forests and “the right holder(s)” refers to the person or people who have the holding right.

When people wish to use the land which other people hold the right, they use the land under the local principle called *yakuto*. *Yakuto* is a way of sharing crops widely adopted in Oromo society in Ethiopia. People often refer to *yakuto* as “*wadha'kka, wadha'kka*,” which means “half and half” and refers to how they divide their harvests into two. That is, a right holder receives half of the harvest and anyone working on his land receives the other half. Various arrangements can be made under *yakuto* but most basic arrangement, for example, is if a person wants to cultivate crops on the land which someone else holds the right, he cultivates crops on the land and dedicates half of his harvests to the right holders. The basic rule is same in honey production as shown in figure 4, case 1 but the situation can sometimes become complicated. For example, if person B, who does not have the right, sets a *gaagura* in A's forest with C, who also does not have the right, then half of the honey harvested by B and C must be given to the right holder. Thus, B and C each only receive 25% of the harvest (Fig. 4, case 2). Clearly, the more people that get involved, the less each receives in harvest, except for the right holder (Fig. 4, cases 3 and 4).

People who produce honey under *yakuto* may be relatives or friends of the rights holder or may be strangers to the right holders.<sup>(8)</sup> Anyone who wants to produce honey must first get permission from the rights holder. On the other hand, rights holders try to seek out people with profound knowledge about the forest, honeybees, or honey producing techniques because the more successful that producers are in a given right holders' land area, the more honey that the right holder will receive more honey. For example, my informant, M, purchased the right to a parcel of forest in 2007 from W. At that time, he asked W to introduce him to someone who knows the forest well. W introduced AM, who has been producing honey long before M's purchasing the forest.

## THE PROCESS OF LOCAL HONEY PRODUCTION

### Types of *Gaagura*

In Gera, the local people produce honey using beehives called *gaagura*. *Gaagura* are cylindrical in shape with a diameter of 20–30 cm and a length of about 80 cm. The local people place *gaagura* on trees, wait for honeybees to accumulate honey inside them, and then harvest the honey from them when the time comes.

There are three types of *gaagura*: *Gaagura lemman*, *egilo*, and *hepo*. The first literally means “bamboo hive.” The main material of *gaagura lemman* is the split culms of mountain bamboo stalks (*Arundinaria alpina*: Graminae), which dominate the vegetation of the forest located at around 2800 m in altitude. People weave the split culm of the bamboo into tubes. Although in Sheka, which is relatively

close to Gera, people make bamboo beehives with both ends open (Awraris et al., 2012), people in Gera close both ends of the beehives with discs made by folding bamboo sheaths, and then make a small hole of about 5 mm diameter in one end (Fig. 5). According to the locals, this type of *gaagura* lasts only 2–3 years because it is fragile, easily broken by wild animals, and easily damaged when hit by raindrops. *Egilo* is made from tree trunk. People first cut down either *Pouteria adolfi-friederici* (Sapotaceae), *Polyscias fulva* (Araliaceae), *Croton macrostachyus* (Euphorbiaceae), or *Euphorbia canderabrum* (Euphorbiaceae) trees. Then they cut the trunks into pieces of about 80 cm in length. They split the trunks into two and carve them, making a deep groove in each piece (Fig. 6). Finally, the two halves are brought together to form a hollow cylinder. *Hepo* is made from tree bark, especially that of *Olea welwitschii* (Oleaceae). According to locals, *egilo* and *hepo* last about 10 years, and *hepo* is mostly used nowadays because making *egilo* is time-consuming and requires certain skills. In the next section, I document in detail the process of making *hepo*, the most-used *gaagura*.

### The Making of *Hepo*

The first step in making *hepo* is cutting down the tree. *Hepo* is usually prepared during the long dry season in the forest. The bark of *O. welwitschii* is mostly used. A local explained his thoughts on why one should cut down *O. welwitschii* before removing its bark:

If you remove bark from standing *O. welwitschii*, the tree would be dead while it is still standing. But if you cut down the tree, many new shoots would come out from its stump.

By cutting down the trees before removing the bark, people are ensuring the renewal of the trees.



Fig. 5. Making of disc to close ends of *gaagura lemman*.



**Fig. 6.** Split *egilo*.



**Fig. 7.** Men removing the bark from *O.welwitschii*.



**Fig. 8.** A vine supporting the wall of *hepo*.

The second step is to remove the bark from the tree trunk. To this end, they first make horizontal notches on the trunk in 80–90 cm intervals with a hatchet, locally called *gajara*. Then they make vertical notches, and remove the bark using a stick (Fig. 7).

The third step is shaping the removed bark into tubes with thick vines (Fig. 8), and the fourth step is weathering. The tubes are left in the forest for 2–3 months. Some are left in sunny places (Fig. 9) and some are placed on tree branches. On November 5, 2006, several members of M's household started staying in his 105 ha of forest for coffee cherry gathering. They cut down 10 *O. welwitschii* and made 100 tubes from its bark. They left the forest on December 12, leaving the tubes in the forest to weather, and returned on February 18, 2007. The weights of the tubes were 10–14 kg before weathering but just 3–5 kg after it.

The fifth step is enfolding the dried tubes in culm sheaths of bamboo, *A. alpina*. These are collected from forests at an altitude of around 2800 m or bought at a weekly market. Then people bring them into the forest (Fig. 10). Discs for closing the ends of the tubes are made by folding the culm sheaths, whose length ranges from around 80 cm to 100 cm. People place a sheath on a tube on the ground to match its length to that of the tube (Fig. 11). Then the sheath is fastened to the tube using vines called *likitti* in Oromo language (unidentified) (Fig. 12).

The final step is waxing and fumigation. After the bark is encased in the culm sheaths, the inside of the *gaagura* is rubbed with leaves of *Dracaena fragrans* (Asparagaceae), *Clausena anisata* (Rutaceae), or *Vepris danielii* (Rutaceae). They are also waxed by rubbing them with honeycomb. They are fumigated with smoke from burning leaves of *D. fragrans*, *C. anisata*, *V. danielii*, *Olea capensis* (Oleaceae), *O. welwitschii*, or a herbaceous plant known as *soggyo* (unidentified) (Fig. 13). Other types of *gaagura*, such as *gaagura lemman* and *egilo*, are also enfolded with culm sheaths of *A. alpina*, and waxed and fumigated in the same way as *hepo*. The fumigation process takes place right before placing the hives in trees.



**Fig. 9.** Seasoning of the bark.



**Fig. 10.** Men carrying culm sheaths of *A. alpina* into the forest.



**Fig. 11.** Enfolding the *gaagura* with culm sheaths of *A. alpina*.



**Fig. 12.** Fixing culm sheaths of *A. alpina* onto *gaagura* by a runner.



**Fig. 13.** Fumigation of *gaagura*.



**Fig. 14.** A boy climbing a tree using a rope.



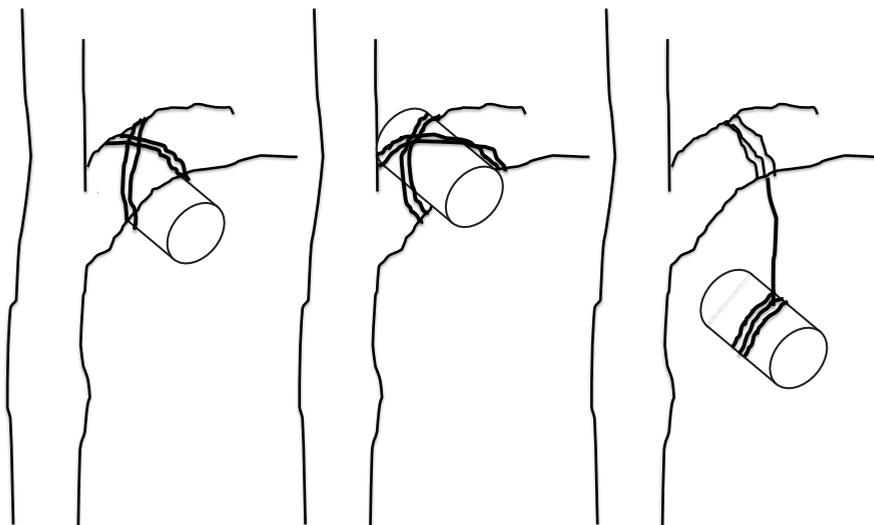
**Fig. 15.** A man setting a *gaagura* on a tree.

### Placement of Beehives in Trees

*Gaagura* are placed in specific species of trees, most commonly *Schefflera abyssinica* (Araliaceae) but also often in *P. adolfi-friederici*, *C. macrostachyus*, and *Albizia schimperiana* (Mimosaceae). Local people believe that the flowers of these trees are rich in nectar so that high-quality honey will be produced. They often name the honey harvested from a hive after the tree species in which the hive was placed. For example, the honey varieties *boxxo*, *kararo*, and *makanisa* are the local names for the *S. abyssinica*, *P. adolfi-friederici*, and *C. macrostachyus* trees, respectively.

It generally takes two people to place a *gaagura* in a tree. One person climbs the tree using a rope, winding it around the tree to make footholds (Fig. 14). The rope is made from fibers of ensete, and typically measures about 60 m in length and weighs about 6 kg. The other person manages the rope underneath the climber so it does not get entangled. The person who climbs the tree determines where to place the *gaagura*. When he reaches the target branch, he pulls the rope up, attaches it to the branch, and then drops the loose end of the rope back to the ground. The person on the ground ties a *gaagura*, a knife, and a runner called a *piyo* (unidentified) to the rope. The person in the tree pulls those materials up and ties the *gaagura* to the branch using the *piyo* (Fig. 15). This process is repeated until all of the hives they wish to place are secured. The number of *gaagura* placed in a tree depends on the size of the tree. A large tree may have 10 *gaagura* where a small tree would typically have only one or two. Once the job is finished, the person in the tree again uses the rope to descend to the ground.

When placing a *gaagura*, one generally considers rain, wild animals, and the positional relation to other *gaagura* in the same tree. When there are several



**Fig. 16** Ways of setting *gaagura*.

hives, each is placed with its entrance hole facing in a different direction. All of them are also placed at a slight angle, and always with the hole at the bottom to prevent them from filling with rain. Bees will not use a *gaagura* that contains water.

In addition to tying hives to tree branches, some people fix them under branches or even hang them about 1 m below a branch (Ito, 2010; 2011) (Fig. 16). It is believed that placement under a branch is the best way to gather honey but such hives are most often damaged by wild animals such as Anubis baboons and Abyssinian colobus monkeys. Therefore, this type of placement is used in areas with few wild animals. In addition, people tend to use *egilo*, the strongest type of hive, in this position, again to protect the honey from wild animals. These are heavy, and there is a greater chance that, as it fills up and becomes heavier or heavy rains and winds occur, it will break free, fall to the ground, and be destroyed. Light and fragile *hepo* and *lemman* hives are often hung from branches to avoid damage from wild animals. People also say that the best way to set a hive is high in a tree because wild animals do not climb high in trees. However, this is difficult and not many people can climb high in a tree.

### Honey Harvesting

Honey harvesting takes place in the short dry season starting at the end of April until the beginning of June, right before the long rainy season starts, when the most honey has accumulated. They check their *gaagura* every time they visit the forest for different purposes. If many honeybees are flying around one there is a good chance that honeybees have accumulated honey in it.

Honey harvesting is also conducted by two people, typically the same pair who placed the *gaagura* in the tree. The work is conducted after sunset when honeybees are not active. One of them climbs the tree using the rope, as described above. Once he reaches the hive, he checks it by lifting it slightly to feel weight of the honey inside. If the hive is light, meaning not much honey to harvest, he leaves it and checks the next one or climbs back down the tree. If the hive is heavy, meaning there is enough honey to harvest inside, then he cuts the *piyo* that fixes the *gaagura* to the tree, ties the *gaagura* to the rope, and slowly lowers it down to the ground. There, it is carefully taken apart in the dark without any light to avoid agitating the honeybees inside. In other parts of Ethiopia, there are areas where people use smoke to drive honeybees out of *gaagura* (Fichtl & Admasu, 1994) but in Gera people never use smoke. They say that if you do this, the honeybees will never return to that *gaagura*. Once the *gaagura* is disassembled, the honeycombs are taken out and placed in a plastic bag. At this point, the bees become agitated and swarm the area. Hence, the harvesters leave the site, and leave the hive on the ground for a few days, until the bees have abandoned it. The harvesters return to collect the *gaagura*, either taking it home or storing it in the hollow of a tree until the next season. *Gaagura* that gather much honey are considered good hives and are used repeatedly. Ieda (2006), who conducted research on Oromo people in western Ethiopia, reported that as soon as beehives were removed from trees, they were replaced with others to keep the colony in

the same tree. In Gera, I never observed this and no one talked about this procedure.

## THE ROLES THAT LOCAL PEOPLE SEE IN THEIR HONEY PRODUCTION

### Transferring Knowledge under the Local Principle

People transfer knowledge of honey production by working together. At the end of October 2008, M's sons, K and F, and his brother went to the forest which M recently purchased its land use right, with AM, who has been producing honey in the forest long before M's purchasing the land use right, to set *gaagura* for a week. All of his relatives had experience setting *gaagura* but it was their first time visiting the forest. While walking around the forest, AM taught M's relatives where to stay, draw water, and collect suitable materials to make *gaagura* and build huts. He also shared some knowledge and skills as they prepared *gaagura*. On one occasion, K tried to gather runners to secure *gaagura* in the trees. AM told K that he should not use the runners that K had found. First, K argued that he always uses such runners. In response, AM took the runner from K's hands, made a small cut on it with his knife, easily tore the runner by stretching it with his hands, and told K that the runner is easily torn with little damage. On another occasion, AM showed M's relatives how to fix broken *gaagura*. On several occasions, M's relatives asked questions about honey production and sought help every time they encountered difficulties.

### Honey Producing Process as a Place for Strengthening Social Relationships

Through the communal labor and labor exchange that take place during *gaagura* setting and honey harvesting, people strengthen social relationships with partners, and the relationships made through these process are often respected.

Setting *gaagura* and harvesting honey are dangerous. A 15-year-old boy I met in the forest told me he was unconscious for three days after he fell from a tree while setting a hive. If the rope gets tangled as one is climbing a tree, this may cause the climber to fall, which can even lead to death. Thus, people choose work partners that they trust with their safety. Most often people choose their most reliable friend or brother. Once I asked a man how much money someone would have to pay him to get him to climb a tree. He answered, "It is not a matter of money, it is a matter of whether he helps me to climb trees or not." Then I asked him again what would happen if I paid him to climb a tree but did not help him. He answered, "If you don't help me climb trees, then I don't climb trees." Behind this statement is a willingness to share his harvest and the joy harvesting honey with his most trusted friends. Honey production takes time and is difficult, but experiencing the hardships and happiness of harvesting high-quality honey with trusted friends strengthens their relationships.

The relationships made through honey gathering are respected. As mentioned

above, honey harvesting is conducted by the same pair who placed the *gaagura*. If one cannot harvest honey with his partner, then he must acquire permission from that partner. One reason for this is *yakuto*, which guarantees each partner an equal amount of honey. I observed the following case during my research.

*Case of MM, who made his younger brother harvest his honey*

MM placed his *gaagura* with his friend A in his father's forest. When two of MM's younger brothers told MM that they will visit the forest for another purpose, MM visited A and told him that he wants him to go to the forest with MM's two brothers to harvest their honey. A told MM that he could not come with them, and also said to go ahead and harvest honey if there was much to harvest. MM passed this information on to his brothers. However, they removed *gaagura* even when there was little honey to harvest. MM scolded his brothers, saying, "Why did you collect *gaagura* with little honey? A will suspect me of hiding honey from him." A few days later, MM visited A with *chaatii*<sup>(9)</sup> and apologized to him.

As this case demonstrates, trust is a key issue in honey production. If one cannot find a good partner, then he will not obtain a good harvest.

The relationships between a right holders and honey producers without the right also structured based on the trust. Producers without the right tend to act honestly because he needs forest to produce honey and if his dishonest will be well known through out the area, he will not find another forests. On the other hand, right holders want to have many producers, especially skilled one, as possible in their forests because many producers means there will be many *gaagura* in their forests and high possibilities of harvesting much honey. The right holders also act honestly with producers because his dishonest action will make producers leaving his forest and never coming back or he only finds dishonest producers, who are expelled from other forest because of dishonesty and no forests to engage in his forests.

As honey production with honesty repeatedly take place as year goes by the right holders build intimacy with producers without the right. When I went to the largest weekly market in the district with the right holder M and his sons, M met a man, shook his hand, and then treated him with lunch and alcohol while M and the man had long conversation.<sup>(10)</sup> I asked one of M's son who he is, then M's son told me that he is one of honey producers working in M's forest for quite long time and the man does not live in Gera District and seldom appears in the market. The affection that M showed to him seemed treating a long time friend. It can be assumed that honest producer and the right holders build good social relationships.

### Meanings of Honey Harvested through Local Methods

People engage in honey production regardless of the amount of cash they earn from it. As described above, honey production requires much labor and time and climbing trees always comes with the risk of falling and getting injured. I inter-

viewed eight people about the honey they harvested in 2008. The rights holder, M, obtained 70 kg of honey without doing any work by himself. No one else obtained more than 50 kg. A obtained 45 kg, B obtained 35 kg, C obtained 34 kg, D obtained 20 kg, E and F each obtained 15 kg, and G obtained 2.5 kg. The average amount of honey obtained was 29.81 kg. Even assuming that all honey was of the highest quality in the area, and that the price was 35 ETB per kg, M would have made 2,450 ETB while person G would have earned just 87.50 ETB.

Although honey is considered a good source of income throughout Ethiopia, in Gera, many people consume the honey they gather themselves instead of selling it. For example, M consumed half of his honey at home and E consumed all of the honey at home. However, according to M and E, most of their consumed honey was in fact consumed by important guests or friends or relatives.

Recently, new modern beehives, designed to be placed on the ground in the backyard, have been introduced to Gera, as experienced in many parts of Ethiopia. Many right holders who accept and use these new hives claim that “quality honey cannot be harvested with this procedure” or that “the honey harvested with these beehives is tasteless” and typically do not serve honey from these hives to special guests. There may be functional reasons behind this. Many people who engage in honey production do not live near the forest thus they have to place new hives in the middle of the crop fields where are favorable plants for honey production do not grow. At the same time, the right holders will not use modern beehives in the forest, as they will quickly be damaged or destroyed by wild animals. Hence, for such right holders, it is reasonable to place beehives in trees in the forest to obtain high-quality honey without much disturbance.

Honey producers without the right also seem to value the honey they produced by themselves in the forests more than honey produced in the modern beehives. Many producers who have modern beehives tell me that “[honey production using new hives are] not men’s job.” When I visited my friend in Gera after two years of separation, he welcomed me with a substantial amount of honey and shared the many stories and difficulties he faced in the process of producing that specific honey. People value the honey they produce by themselves and share the challenges and difficulties they had to show their affection for guests or as examples of heroism.

## CONCLUSION

The process of honey production is arduous, dangerous, and pays little for many people but is full of meaning and serves as a social event for locals, through which knowledge and skills regarding honey production and living in forests are taught and exchanged. Many believe that honey production is indispensable for the growth of younger generations. The activities also create bonds among participants, who share common struggles and experience happiness together when high-quality honey is harvested. However, it is important to note that trust plays a large role in determining partners. If one cannot find a good partner,

then he will not reap good harvests. Also, there is a tendency for people to value honey that they produced by themselves more than honey bought at a market or shop and honey produced by newly introduced modern hives. They serve honey to important guests, and tell them about their challenges and difficulties in the process of the honey production.

Regarding the local principle, such as *yakuto*, that allows people to work on the land where someone else holds the right, people still frequently use it in honey production. The reason behind this may be people see values that cannot be converted into money in the honey production. Matsumura (2007) reports that many customary manners for sharing crops are vanishing as monetary economy infiltrates into the rural society. Many people, nowadays, are working on the right holders' lands in exchange for wages. For example, many harvesters of coffee cherries are paid 0.25 ETB per kg of dried fruits they harvested while some people still receive half of their harvest under *yakuto* principle. People who harvest the cherries under *yakuto* would receive 500 g of dried cherries if they harvest 1 kg of the cherries. At the time of research in 2008, 1 kg of dried cherries was bought at 7 ETB. By simple calculation, while wage-earners would earn 0.25 ETB by harvesting 1 kg of dried cherries, people harvest coffee cherries under *yakuto* would earn 3.5 ETB. Although people earn more money working under *yakuto*, increasing number of landless people and narrowing of holding land area increases the number of wage-earners who work in exchange for little money. As the number of such wage-earners increase, the right holders tend to incline toward exploiting wage-earners more. However, those people who see different values in honey production other than making money do not produce honey in exchange for money. The values people see in honey production together with the local principle function to put brake on the right holders' exploiting others and further expansion of economic gaps between honey harvesters and the right holders. Thus, understanding the local principle applied to and the values that local people see in the honey production are important for those activities or project to increase the efficiency of honey production in Ethiopia.

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## NOTES

- (1) Ethiopian birr, the Ethiopian currency. As of February 14, 2013, 1 USD was equal to about 18 ETB. However, in 2010, 1 USD was about 12 ETB.
- (2) Gera District is officially written as Aanaa Geeraa in Oromo language, but in this paper I use notation Gera District to avoid confusion.
- (3) The eight types of honey that Cecci implies are *boxxo*, *bila*, *gumaria*, *ebichaa*, *dannisa*, *makanisa*, *qeto*, and *tufô*.
- (4) Gera District preserves the boundary of Gera Kingdom which is founded in late 19th century and absorbed into Ethiopian Empire in the end of 19th century (Lewis, 1965).
- (5) The Gibe Basin is located north of the Gojjab River and west of the Gibe River. Five kingdoms founded by Oromo people emerged between 1810 and 1830 in this area (Gascon, 2005).
- (6) Coffee gathering activities in Gera are detailed in Ito (2011; 2012).
- (7) After the land reform of 1975, dedication of honey to the village leader for land holding right may be considered as bribe; however, transaction of the land was often took place through out the history of Gera (Lewis, 1965). Thus, the dedication can be considered as relics of old customs and those people in concern seem to have no sense of giving bribe.
- (8) The rights holder M, who I observed for this research, did not engage in *yakuto* with his household members, but he said that some rights holders do engage in *yakuto* with everyone, including their household members.
- (9) *Catha edulis* is a plant in the Celastraceae family. People enjoy its stimulant action by chewing its leaves or young stems. It is widely chewed in Ethiopia. In Gera, the plant is often used as a gift on special occasions.
- (10) Although, many people living in Gera District are Muslim, they often drink alcohol on special occasion.

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