

“No Tree, No Bee – No Honey, No Money”: The Management of Resources and Marginalisation in Beekeeping Societies of South West Ethiopia

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Abstract:

The paper analyses the impact of the two most prominent elements of a traditional society in South West Ethiopia: institutionalized traditional beekeeping as main cash income source and high segregation of a society through a caste system, which marginalizes especially a certain huntergatherer group. Beside the high ecological value of the pollination services of beekeeping the traditional inheritance rights, where honey-bee trees are inherited from one generation to the other over centuries still have highly conservational effect on primary forests, also by increasing the opportunity costs of forest clearing through income generation from bee-keeping. However as the main factor of the economy is subsistence agriculture, it can be assumed that despite relatively high incomes from beekeeping the forests will decline further, nevertheless this tradition will help to retard this process, until alternatives could be generated. However, income from beekeeping is now threatened through ecosystem fragmentation through the spread of plantations and due to a decline of the pollinator's population due to declining resilience of the traditional system itself. Moreover the discrimination and social exclusion of the huntergatherer groups from agriculture forces them into non-sustainable practices of hunting and fuel wood gathering for cash, as due to their exclusion this cannot be integrated into agriculture and leads to a perpetuation of their marginalization due to the extension of traveling and transport distances which increases malnutrition and vulnerability to diseases. Social exclusion moreover increasingly forces the groups among them, who are already in transition to agriculture frequently to abandon their plots.

0. Introduction

Traditional ecological knowledge is an attribute of societies with historical continuity in resource use practice (Dei 1993, Williams and Baines 1993) and is defined as a cumulative body of knowledge, practice and belief, evolving by adaptive processes and handed down through generations by cultural transmission, about the relationship of living beings (including humans) with one another and with their environment (Berkes 1999). The neglect of these traditions can lead on the one hand to a loss of great treasures of knowledge, the neglect of traditional institutions to forest mismanagement and severe tensions within the society. The decline of Ethiopian rainforests in the past 50 years can partly be explained by this :

The forested area of Ethiopia decreased from originally 40% of the total area to 3% with catastrophic consequences on food and drinking water supply. Conscious of this problem, the Ethiopian government(s) made different efforts for afforestation and protection of the remaining forests. However, many of these measures failed. One of the reasons for this is that, although the idea is appreciated, a lack of participation of the communities in resource management and even a violation of indigenous institutional rights has led to great tensions among different forest users.

On the other hand, indigenous people are frequently idealized as “noble savages”, without showing the contradictions within these societies, traditional knowledge on the other hand has either been despised as backward or idealized as “holistic, intuitive or even moral etc.” The following text tries to deal with these contradictions of indigenous technologies and societies themselves on the one hand and in the face of “drivers of change” on the other by analyzing the principles that underline the ecosystem management in a traditional society and the social and ecological system characteristics and linkages, which contain according to BERKES & FOLKE (1995) the following elements: (1) ecosystem, (2) resource users and technology, (3) local knowledge, (4) property rights, (5) institutions, (6) patterns of interactions, and (7) outcomes (BERKES et al., 2000).

Specific questions to be answered will be:

- In which way does the traditional institutional system, which is frequently described as a caste system, structure the current resource management?
- Which valuing system underlies the decision making process in the current resource management system?
- In which way does the social system and land use management affect human well-being and social justice of the indigenous populations?
- In which way can the current system cope with “drivers of change”?

1. Background: Ecosystem, Social Stratification and Economy

The basic economic pillars of the current land use systems are the use of non-timber forest products for cash, especially beekeeping, for subsistence an enset-based agricultural system (Westphal 1975). The study has been conducted in the Sheka Zone of former Illubabor in Ethiopia, mostly located in the agroecological zone of the Woyna Dega in an altitude of 1500 – 2300 m (still) densely covered by moist broadleaved forests and additional areas in the Kolla (lower than 1500 m) and the Dega (higher than 2300 m).

The complex social system in the Sheka area has a strong hierarchical differentiation, comprehensively described by LANGE (1982) within which the group of the Manjo (also referred to as A'ddo or Manja) have the lowest status. They are considered as the most marginalized group in Ethiopia, comparable to the untouchables in India. The Manjo represent 10% of the whole population in that area, which is dominated by Shekachos resp. Kefichos.

The current agricultural production system can be classified as an ensete based mixed-cropping system (Westphal, 1975) for subsistence. Farm sizes are between 0,5 and 7 ha and are scattered, to make use of the different agroecological zones. Together with ensete teff, barley, beans and vegetables are grown. The most prominent cash income source is honey.

1.1. General Importance of the Beekeeping System in Ethiopia

The bee is a small animal and honey is only consumed in small amounts by many people. Frequently there is therefore a high unawareness about the ecological and economic importance of the provisioning and enriching services of bees.

Of all countries in the world probably no country has a longer tradition of beekeeping than Ethiopia. Already the hieroglyphs of the ancient Egyptians give a hint, that this country has been a source for honey and beeswax ever since. The dissemination of christianity moreover strengthened the beekeeping system because of its demand for wax for religious ceremonies.

- Today Ethiopia owns with ca 10 millions of bee colonies the largest bee population of Africa
- Ethiopia is the largest honey producer in Africa and the 10th largest honey producer all over the world.
- The **total honey production of Ethiopia is estimated up to 24 000 m³**, only a small portion of this is marketed. Beside poor marketing conditions the main reason is, that about 80% of the total Ethiopian honey-production goes into the local Tej-preparation, *a honey wine*, that – as the national drink – is consumed in large quantities.
- **Bees Wax** actually is a by-product during honey production and mainly is totally used inside the country. Yearly bees wax production is estimated to 3200 t. Thus Ethiopia is the **fourth largest producer of beeswax** in the world, which mainly is exported to Japan, Germany, the Netherlands and the USA.
- Further economically important honey products are **propolis and pollen**, and others that are used in pharmacy, cosmetic and colour industry.

Economic Importance of the Pollination by Bees:

The ecological function of bees has even a higher economic importance than the direct beekeeping products: „*Researches indicate bees can benefit 250 – 300 folds through pollinating particularly pulse sees and vegetables in raising the production higher than their direct products – honey and wax.*“ (Walta Information Center, 1999). The global estimate of the value of the service of pollination is US\$ 65 – 70 billion, representing a 46% loss of global harvests. The establishment of the International Pollinator's Initiative has therefore been one major concern of the CBD.

1. 2. The Social System: The Practice of Exclusion

Modern forms of forest management are partly based on restriction and exclusion, mainly implemented by legislative measures. Traditional forest management actually is following the same principles by excluding all people from use rights other than a group clearly delineated usually on the basis of kinship or territory. The cohesiveness of these groups, and by this the exclusion of others, is chiefly generated by myths and symbols, that refer to the history of these groups (MARENA 10, undated).

Social exclusion is a practice of the more powerful groups in a society to structure the possible field of action of the less powerful ones (GORE, 1994). This does not completely block any possibility of agency on the part of excluded groups, but structures their field of action. From this perspective it should be shown, how one single

instrument of social exclusion, the concept of pollution, can be transported through these institutions to stabilize and reproduce power and also determines factor allocation and resource use within an ecosystem

1.1. Practice of Exclusion

For the Manjo almost all of the criteria that are described for low castes can be applied, although there is a controversy if this concept is appropriate for Africa, like endogamy, pollution, traditional occupation, mythology of their history, a low status within this hierarchical society which is justified by their nutritional habits (PANKHURST, 1999). Shekacho do not greet Manjo, do not shake hands with them, do not visit them in their houses and especially do not eat with them. One Manja man described the situation of his group as follows:

“Socially we are outcast, they (the Shekacho) don’t even greet. They (the Manjo) do not even consider themselves as human and are not considered as human. They themselves assume that they themselves are responsible for their bad treatment. They even think they are not able to work on a farm.”

More or less any contact between Shekacho and Manjo is forbidden. Socially the Manjo are excluded from any reciprocal relationship with other social groups, an exclusion which includes any social interaction, commensality and membership in associations, joint labour and intermarriage. At funeral and weddings Manjo are obliged to attend and carry out certain tasks, such as carrying the corpse. However they can never enter a house during those ceremonies or otherwise they have to sit outside on the floor, where they are served drinks in enset leaves (BOVENSIEPEN, 2003).

1.2. The Conception of Pollution: Eating Guerezas and other “Bad Habits”

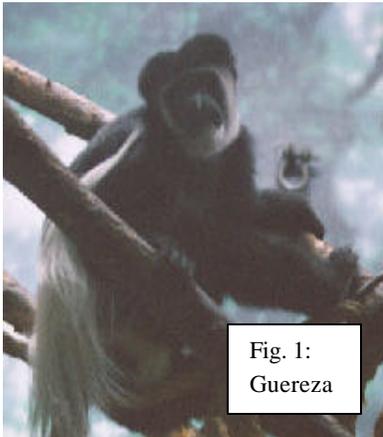


Fig. 1:
Guereza

There is a long list of what is perceived as the “bad habits” of the Manjo by the Shekacho (GUDETA, 2003). “Bad” in this sense is perceived by the Shekacho as what is “not allowed by the bible” and connected to paganism, superstition f. eg. and what moreover is seen as harmful to the physical integrity of the Manjo themselves, like “keeping the dead body for a long time in the home, blackening clothes with charcoal as a sign of grief, cutting the tip part of the uvula with a sharp blade to protect against tonsillitis” etc. etc. etc.. However, the reason for their outcast status is that they are seen as polluted. PANKHURST (2001) notes that it is a widespread phenomenon in south-western Ethiopia that the “polluting” nature of minorities is explained as the result of eating habits. Also in this case, the main reason given for their exclusion, is the **eating of guerezas** (scientific name: Abyssinian black and white colubus monkey). Since prohibition by the bible did not seem to be a sufficient argument, as the Manjo eat many other animals that are also forbidden in the bible according to orthodox belief like porcupine,

which are also eaten by the Shekacho, and nobody cares, the question remained, why just the consumption of guereza leads to that extent of exclusion. Therefore the second argument was, that the Manjo are destroying the forests by hunting guereza. In fact, the technique of catching a guereza is by felling the tree he sits upon, which cost a lot of trees. But also the Shekacho are felling trees for agriculture and construction. Maybe the resentment against this is, that in terms of a comparison of costs and benefits in the value system of a Shekacho it is more justified to fell a tree for a house or an agricultural plot than for a guereza. This argument is also supported by HARRIS (1978), who explains food taboos as a kind of adaptive strategy to reduce costs and maximise benefits in the struggle to keep living standards from falling (BOVENSIEPEN, 2003). However this does not justify the strength of the taboo. Arguments from the ecological discussion are, that social taboos could also have the effect of contributing to resource sustainability (Colding, 2002). For example these kinds of food taboos exist in some societies for species, who otherwise would be the first to be prone to extinction in that specific ecosystem. In fact, the guereza is on the red list of the IUCN as an endangered species, and indeed, the closest relative of the the guereza , the red colobus, was eaten up to extinction in the year 2002, however, not by subsistence hunters, but by British consumers who got it through illegal trade of commercial hunting products (OBSERVER 02/24/2002). Moreover argument cannot be valid for the Sheka guerezas, as they are still abundant in number, instead many other species are getting scarce, which have been hunted by Manjo and Shekacho as well (HARTMANN, 2001a).

BOVENSIEPEN (2003) tried to decipher this taboo from the view point of separation and boundary creation, quoting BRAUKÄMPER (1984), who shows that the number of food taboos of one person can reflect in some way this person’s social status. “In this sense, if the avoidance of certain foods is a sign for high status, the lack of avoidance pushes the Manjo at the bottom of the social hierarchy. (BOVENSIEPEN, 2003). However, being at the bottom of a social hierarchy, means still being within that society, but the Manjo are “sub-ashi”, sub-human,

are considered to be outside the human society. So the third argument given by the Shekacho, why the Manjo are getting polluted through eating guereza was:

“The guerezas are like us”. From this point of view, eating guerezas is considered as cannibalism. If we assume that the Manjo were the original inhabitants of the Sheka area, the time of Shekacho invasion must have been a very disordered period. Describing someone as cannibalistic and thus somewhat monstrous can be used to justify oppression because it renders the “other” inhuman (BOVENSIEPEN, 2003). *“Cannibalism is probably one of the most extreme forms of transgression. The idea of eating one’s own kind signifies lawlessness, irrationality, hybridity, fear of being swallowed and loss of identity.”* (WARNER 1994). This explains the negative stereotyping of the Manjo, f. eg. they are said to be liars, drunkards, hot -tempered, incapable of farming and of saving, also it explains the strong fear of the Shekacho of any kind of contact with the Manjo, which is very deep and is made a question of life and death. There is the traditional belief that a Shekacho will die, if he/she enters the house of a Manjo or eats their food. As the Manjo have deeply internalized the picture of their inferiority, this belief it might kill a Shekacho, if they are entering their house or eating food of them, is even stronger among the Manjo than among the Shekacho.

Finally BOVENSIEPEN (2003) concludes, as objects, animals, people or processes are not inherently impure or polluted, following the argumentation of DOUGLAS (2002), that the categories each society creates about dirt and pollution are arbitrary and can be used to maintain and justify the structures of power within a society.

2. History: Who was the first one ?

Perception of historical origins are quite important as they can decide the at least theoretical land claims of one group. However, origins are sometimes difficult to trace.

Mythologies on the origin and the segregation between Shekacho and Manjo coincide

„Seven (in some of the myths two) brothers were taking a walk. Then they all became hungry. Six (one) wanted to wait to eat until farmland was found and started to practice agriculture, but the seventh (other) went to the forest „and ate bad things“:“ (PANKHURST, 1999).

The oral history told by the Manjo is the complete opposite of the “brother myth”, and it justifies and in some way excuses their habit of eating guereza as a reaction on the oppression by the Shekacho:

“The Manjo are indigenous inhabitants of Sheka. The Shekacho are seen as invaders who conquered and oppressed Manjo. The eating of colobus monkey has become for them a necessity, because the Shekacho denied them all other means of subsistence. The hunting of colobus started, when Amhara leader Ras Tessema conquered the Sheka area. At this time, the Shekacho locked the Manjo leader in a cave, so that he could not participate in the negotiations between Amhara King and Shekacho leader. The Manjo king started to eat colobus monkey in order to survive.”

Secondly, this tradition denies any common origin of Manjo and Shekacho, it underlines that they consider the land from which they are mainly excluded as their ancestral land. If subjugated minorities in South West Ethiopia are the original inhabitants has also been controversially discussed among scientists. For Kefa at least it seems to be obvious that the Manjo have been the original inhabitants in that area, with a stronger social position before the rule of the Amhara King (BOVENSIEPEN, 2003). According to HUNTINGFORD (1955), the Manjo had a sub-king in Kefa, who represented them at the king’s council and retained his status in recognition of the autonomy of the Manjo before Kefa settled. According to LANGE (1984) the Manjo came to Sheka from Kefa, after the occupation of the land by the Shekacho. HUNTINGFORD (1955) and many others explain ostracism in terms of conquest and ethnicity, which means the subjugated people have been the “indigenous” remnant population, others are holding that the separation is due to occupational difference and thus the minority group migrated together with the dominant one (BOVENSIEPEN, 2003).

For the political identity of minorities it is highly relevant, who was there first. There have been severe clashes around a demonstration by the Sheko-Majenger for political rights around Tepi in early 2002, who demanded their own territory in their ancestral land, during which several hundred people were killed and villages were razed out (BBC,2002). As the Manjo in many ways identify themselves with the Sheko-Majenger, there were also some minor uprisings of the Manjo to protest against their own discrimination. Also the Manjo are demanding land, however agricultural land, not forest land, and there was an ongoing debate, if they wanted to demand an own territory in the forest like the Majenger did, or live mixed in villages with the Shekacho like now. Finally, they found it more preferable to live with the Shekacho, as they were fearing, social exclusion might be aggravated by living separately (HARTMANN, 2002b).

3. The Role of Religion

Originally Shekacho and Manjo both were following their traditional religion, based on the “Eqqos”, persons, who are possessed by magical power that can cure people from illness or punish them if they committed an offence. There are “eqqos” from both the Manjo and the Shekacho society. The other element of the belief is the gudo. The gudo is a holy stone or shrine situated in holy groves. Sacred groves fulfil many critical ecosystem functions, such as providing seed banks for local species, providing habitat and recruitment areas for seed dispersing animals, and providing habitat for predators on local agricultural pests (FORD, 2002). Women are never allowed to go near them, “*as it never is clearly known, if they are menstruating*”, men only under certain conditions (e. g. if they have not had sexual intercourse, not carried a corpse and not eaten cabbage for some time). Ideas about pollution are thus not only to be found in the relationship between Manjo and Shekacho, also in wider structure of Sheka society related to women. Manjo have to clear the forest around the stone, since it is believed that it will move away if anyone other than Manjo approached it first (SEYOUM, 2001). The third element of the religion are holy trees, which are ointed with butter at several occasions and whose felling is prohibited.

Every clan its own Guddo – shrine to worship, where they slaughter oxen and feed the blood to the spirit that is thought to reside under the Guddo stone. One of the main skills of the guddo is to stop the rain, which is very important in an area of “*13 months of rain*” and generally used during funeral ceremonies and harvesting times. Although it is the responsibility of the clan leader to organize and lead the ceremony, which takes place few times a year, it is Manjo’s duty to clear the forest round the stone, where farmers perform their clan rituals. These involve making offerings to clan spirits who are thought to live under the Guddo in the forest. Amnon Orent describes the dualistic organisation of the world in the Kafa conceptual system in which the village, the domain of people, is in constant opposition to the encroaching forest, the domain of the spirits who send wild animals to destroy the crops when they are displeased. (Orent 1969:49-50). The location of the Manjo in the forest and their role in these rituals suggest that there may be some conceptual association between them and the spirits in the farmer world view (FREEMAN & PANKHURST, 2001).

It is believed that the Guddo would move away if someone other than a Manjo approached it first. The Shekacho say: “Since you are hunters, eaters of wild animals and live in the forest, let the Guddo do no harm to you. “ It is said that a Manjo who could not find a place to pass the night could get the Guddo and sleep inside. Farmer clan leaders are said to bless the Manjo for clearing the area around the Guddo saying “*May you obtain good results for your work and have a long life*”.

4. “The Forest is our Dress”: Local Perceptions about the Forest

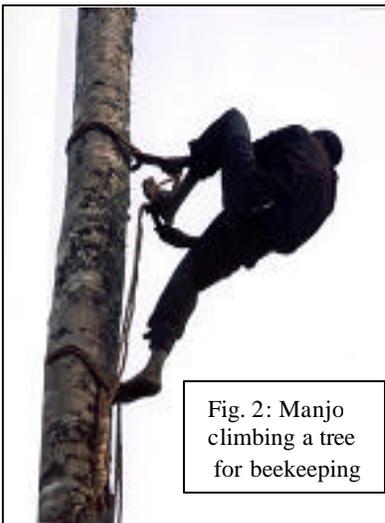


Fig. 2: Manjo climbing a tree for beekeeping

Hunter-gatherer communities have profound knowledge of valuable resources like honey, medicinal plants, natural materials for clothing, containers crafts and other useful products (DUTTON, 2002). Though outcast, the Manjo historically have been very much appreciated for their knowledge and skillfulness by the Shekacho, the women because of their good knowledge of trees, the men as hunters and beekeepers. “*The most famous clan leaders came from the Yatto and Manacho¹. They were known as brave warriors and skillful hunters, who were able to kill wild animals like lions and tigers with primitive weapons.*” (GUDETA,2003).

Also their environmental knowledge on site selection is respected very high by the Shekacho, as they were helping the Shekacho to find new farm land, while they were settling down there. The same was also found in the relationship between Manjo and Malla (DEA, 2000). Still now the Manjo lead the Shekacho through the forest during hunting and help them tracing the animals. DEA (2000) however stresses that a superiority in specific skills does not necessarily lead to a higher social status.

The forest is divided into different sections, places near the homestead for every day walk (called KUBO in Keficho), and into deep forest areas, the QUDO, where people walk in in groups, to take out their products (Farm Africa, 1994). This has 3 functions:

- Security: people can protect each other from wild animals
- Reciprocity: the group works together for any member of the group, as long as the one are working for can provide them with food and tej. This guarantees a high level of reciprocity.

¹ Bee-Harvesting by a Member of the Manjo-Clan

- Social control: The system guarantees a high level of social control against individual overuse of common resources

Both groups consider the forest as their basis for living, very aware about its importance and concerned about its conservation

„The forest is like our dress, it is our shelter. We want to inherit it to our children,“ as one Shekacho said. A similar attitude was reported from the Manjo in Bongar:

„We are created from the natural forest and the trees are part of the natural forest. Each tree found in the natural forest grows on the grave of our ancestors. The forest, the sky and the earth are the same to us. The forest protects us from the heat of the sun by its shade; it brings us cool wind and rain. The sky, by holding dark clouds, sends us rain. ...This is, why we cannot live devoid from the natural forest.“ (FARM AFRICA, 2001).

The traditional use system actually was designed for forest conservation, as this system now is becoming eroded, conflicts around the forests are becoming aggravated.

Traditional religion used to have a strong conservational effect on the forest: As already mentioned, big rocks inside forests and special trees are regarded as the homes of Gods (the Gudu). Except for executing religious practices, it is not allowed to enter the surrounding of these rocks within a large area, so these areas are mainly refuge areas for wild animals and establishment of plant biodiversity, especially honey bee flora. Cutting sacred trees can lead to banning the person, who did this, from this area. Meanwhile, this system is also in tradition: the expansion of Protestantism and modern education makes people more and more abandon this tradition, so that the ecological function of forest conservation by religious practices is declining.

Shakecho and Manjo go hunting together, however, a Shekacho would never go hunting alone with a Manjo, since, *“should a wild animal appear, the Manjo might climb a tree and save himself without even warning the farmer. Even if the farmer manages to escape, he would not want to be seen running by Manjo as a coward.”* (FREEMAN & PANKHURST, 2001).

5. Traditional Beekeeping

Beekeepers try to distribute their hives along all 3 agroecological zones, to make the best use of the different flowering times of the trees. For instance in the „djungle forest“ of the Kolla the variety of blossoms is said to be much higher and thus also the yields than in the Dega. In the cool Woina Dega instead hardly any beekeeping is practised, as the forests there are poor of blossoms. The honey yields in the Dega are lower than in the lowlands, as the forests there possess a small number of varieties of blossoms. Normally the farmers there do not have more than 10 beehives on their farms for home consumption..

5.1. Institutions

The main pillar for income generation in the forest of both Manjo and Shekacho is the **bee-keeping**. Beekeeping is a highly conservational system, as income is generated through the honey bee flora, which gives an incentive to preserve it. For traditional bee-keeping the bee hives are hanged upon trees deep in the forests in November at the beginning of the dry season, when trees start flowering, honey harvest is conducted in March. As the people depend on the forest flora for the honey bees, which thus is their income base, this forest use system gives an incentive for maintaining the forest as a base for sustaining their living. Manjo and Shekacho have separate areas where they hang up their hives. Everyone has individual use rights on the forest trees, that are used for beekeeping, which are inherited from father to son, or from the husband to his widow. These use rights have been respected for hundreds of years. The tree used as beekeeping trees in the forests as well as in the farms are key species and thus guaranteeing the preservation resp. the fast regrowth of the forests.

While there are also some conflicts between Manjo and Shekacho, in the way that Shekacho accuse Manjo to destroy the forest by felling trees, and the Manjo, that Shekacho bewitched their beehives, besides these internal use conflicts an external conflict is overlapping these and aggravates the situation of both groups.

Beekeeping is the main income source in the Ethiopian highlands. Traditionally it is a men’s job. The security aspect of the traditional beekeeping system should not be underestimated: while fixing the beehives and during honey harvest as well high trees have to be climbed, up to a height of 40m. The one, who is not able to climb because of physical reasons, cannot become a beekeeper. Even more serious is that many people get injured or even die from falling from the trees

5.2. Traditional Management

Materials, from which beehives are made in Ethiopia are traditionally clay, straw, bamboo, ensete leaves, bark, dung, wood. The Shekachos mainly use wood (Karacho) or bamboo.

As the traditionally practiced system of beekeeping in the Shekazone (like in most of the remaining parts of Ethiopia), that can be described as „honey harvesting“ or „honey hunting“, does not require continuous work, which contains the reproduction of bees by breeding, only 2 main steps are necessary:

- a) Hanging of the beehives on the trees in the forests during the beginning of the dry season in November (20 – 100 per farmer in the Sheka-Zone, maximally up to 1000 in other regions)
- b) Honey harvesting in following March: smoking and removal of honey (from the wood bee-hive on the ground, from the bamboo hive in the tree). Afterwards swarming of the bees.

This is done in communal work, (debo or defo), farmers go in a group into the forests for cooperation and to protect against wild animals.

The forests, in which the beehives are hanged up, are usually one day walk or farther remote from the homesteads. Besides the honey bee flora, which can be found here, the advantage of this is, that the main enemy, the red ant, which is mainly located near the houses, does not occur here, moreover it protects the farmer's families from stiches. **From the viewpoint of resource management and biodiversity protection, the most important impact of this system is, that it connects the farmers' economies with the preservation of these trees, that these trees are forest trees far from the villages and therefore this system guarantees the preservation of wide forest areas.**

A further advantage of the system is the high labour efficiency. Except for fixing of the beehives in the trees and the removal of the honey no other work is necessary, as the only necessary investment is a knife to cut the honey. Therefore despite the low effectivity of the system (5 kg honey/colony) the relation between labour input and output is not reached by any other system.

Nevertheless the system has so many disadvantages that probably it will not be possible to maintain it on the long run. Beside the *low productivity per hive* the main problem is, that during honey harvest by knife *brood and larvae are damaged resp. killed*, so that the reproduction rate gets diminished, which might be the main cause of a currently tremendous decline of the bees population, beside ecosystem fragmentation.

Table: Advantages and Disadvantages of the Traditional Beekeeping System:

- + low management effort
- + low investment (only a knife)
- + high efficiency
- wood consumption
- high time demand for manufacturing the beehives
- low yields (ca. 5 kg honey/colony)
- no reproduction of the bee-colonies
- destruction of bee population during removal of the honey combs by knife including the brood and the pollen
- dangerous: who is unable to climb, cannot become a beekeeper
- high competition

Beekeepers try to cope with the declining bee population, and thus declining honey production, by hanging up more and more bee hives. Thus, there is a strong conurrency between the beekeepers about the bees, that should settle. However, a high number of bee hives in the trees does not increase yields. Even where more than 100 beehives are hanged in the trees, only 30 – 40% are settled. Many of the beehives in the forests are useless. Instead this coping technique leads to more and more consumption of resources, as for manufacturing traditional beehives, wood or bamboo is necessary, **which means that these newly developed techniques of coping with the newly developing decline of the beekeeping population in a traditional way leads to higher consumption of the resources of the forest without additional returns.**

Honey marketing also is a men's job and is the main cash-income source for the men in the Shekazone. Almost **every payment is done during the honey harvest from the returns of honey marketing.** On the market of Bongar honey even can be used as payment instead of money.

5.3. Perceptions of Honey Quality: Modern versus Traditional Criteria

Analysis of Masha honey

(analyzed by Landesanstalt für Bienenkunde, Stuttgart Hohenheim)

Water content: 23,7% (should not be more than 21%)

Sediment: normal

Invertase: 56,5 U/kg (should be at least 64)

Specific electrical conductivity: 365 microS/cm

Hydroxymethylfurfural (HMF): 3ppm

Estimation of frequency of pollen:

Very frequent: Caesalpinaceae-type

Frequent: Myrtaceae

Rare: -

Others: Sunflower, Cyperaceae, Vicia, Datura, Bidens, Acacia, Ranunculaceae, Sapotaceae, Combretaceae

Without nectar: Rumex, grasses, maize

No honeydew, no foreign pollen

Special remarks: Increasing content of yeast

Conclusion:

The honey shows no damage due to heat or storage. The HMF-content, which indicates contamination by pesticides, is extremely low. The water content is higher than the maximum value that is allowed by international standards. Increasing contents of yeast show already the beginning of fermentation processes, which maybe due to the age of the honey. Highly polluted by particles of dirt, wax, larvae and bees. Therefore not meeting the requested quality standards.

While thus the result of a laboratory analysis does not meet modern international quality standards, the criteria that are put on their honey and consequently the valuation is quite different:

Larvae, brood and bees in the honey are partly welcome as a protein source in food scarce areas. Especially larvae are given to the children to please them. Higher water content is also welcome, as spoons and knives are not in use, and thus a honey with higher water content can be easier taken by bread. What is called pollution is actually either soil or plant residues and is facilitating the fermentation during Tej production.

5.4. The Impact of Ecosystem Fragmentation on the Returns of Honey Production

Wood logging enterprises and foreign investors established large plantations in the communal forests, which lead to a severe destruction of the honey bee flora by ignoring and violating the indigenous inheritance rights. (HARTMANN, 2002a) This severely reduced income from honey-harvesting of both groups, in some cases about 50%. However, the greater concern of both groups is the environmental effect of deforestation. The question about the forest becomes a question of survival:

„If they clear the forest, the rainfall will stop and desertification will appear. We have seen other areas of Ethiopia, we have seen, what happened there. We are not worried about ourselves, it might not affect our lives, we are afraid about our children. We don't have the power, please explain to other persons.”

The economic effects, which had the establishment of the tea plantation in the Shekazone, was dramatic. Not only the honey bee trees were cut, which the farmers used since many generations, the tea plantation also led to a loss of honey bee flora on an area of 3000 ha. As a consequence of this the average household income diminished about 50%. One of the women said:

„Most of them use honey as their main cash income. Any payment is covered during honey harvest. Their house income is decreasing to the limits of their capacities. You can feel it in every aspect.”

Economic and social Effects of Tea Plantations:

- **Loss of the Honey Bee Flora** leads to a reduction of the number of settled beehives of about 50%
- Decrease of the honey quality due to the application of pesticides on the plantations
- Loss of income due to lower honey yields of about 50%
- **Reduction of communal grazing land**
- Reduction of food availability for livestock – loss of income from livestock up to 50%

- No compensation for income reduction
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Beside depression in income, deforestation has a depressing effect on nutrition and health, especially on Manjo women. The workload of **Manjo women**, who prepare, collect and transport the fuelwood is increased in manifold ways due to longer transport distances for fuel wood. Manjo women more apart from the town usually are specialized on charcoal preparation to reduce the transport load. Declining efficiency is reducing the daily income in a way, that food deficiency and health problems increase (HARTMANN, 2001b). Therefore under the prevalent conditions, already many Manjo families reach their limits of capacity and the cash in come they gain is no more enough to cover their subsistence needs.

6. The Impacts of Social Exclusion on Land Use and Food Situation

After the revolution 1974 the Manjo were allocated some plots land, so that they are in a transition now from hunters to agriculturalists. The concept of exclusion can also be observed in terms of land allocation, as exclusion from land can be associated with spatial marginalization, if people are pushed to poor or ecologically fragile land (GORE, 1994): Land is distributed by the Kebele on request. The usual practice for the Shekacho is that they propose a piece of land that they like to cultivate and the Kebele agrees, if certain conditions are fulfilled. Generally the Manjo are assigned to small agricultural plots in the outer areas, near rivers and near the forest at the periphery of villages. Although soil fertility in general is high, these are the most unfavourable areas for agricultural production, as near rivers ensete growth is limited by waterlogging, near the forest sites damages by animals leaving the forest to feed on agricultural crops are the main problem.

“They gave us land full of apes and baboons,”

as one Manjo was telling. The residential position on the one hand reflects their social status (BOVENSIEPEN, 2003) and on the other hand the way their mode of production is perceived: OKOTH-OGENDO (1989) points out, that in “African thought” concerning land allocation there is a clear separation between *solum* and any manifestation, such as crops, trees, buildings, which symbolizes human interaction with it. Powers over land are specific to a resource management or production function. (GORE, 1994). Therefore, for the Manjo these pieces of land they are allocated are a way to follow both modes of production, agriculture and hunting as well, as the travel distance is smallest there:

“The Manja do not like to live near the towns, because they need the jungle trees.” (Shekacho informant).

Nevertheless, this arrangement seems to be of mutual interest, as for the Shekacho on the other hand the fields of the Manjas serve as shelter belts against predators attacking their crops.

Manjo living deeper in the forests are semi-nomads and do not practice agriculture, mainly following the wild animals in the forest as their nutrient source. The ones near the villages who are more deeply involved into agriculture have almost permanent settlements. It has to be stated, that the contribution of men to the daily nutrition by **hunting** is the meat for one meal, as hunting mostly is done in groups and the meat is reciprocally shared. Nevertheless the settlements are changed quite frequently, some change their residence very often, some never change. The main explanations given for that was that they had to look for a better place in terms of food security. Changes in order to improve food situation usually have the following reasons:

- To establish a new ensete plantation, Manjo get seedlings from their former Shekacho patrons or from relatives. But most of the Manjo do not have access to resistant Ensete varieties like the Shekacho, as for these has to be paid for. As soon as their crop gets the virus, yields drop tremendously and they have to look for a new plot and also other phytosanitarian measures, like uprooting infected ensete plants, interplanting with other crops etc. are also not applied by the Manjo, (which has also been observed by DEA among the Malla (2000).
- Due to lower soil fertility of the plots they are assigned to, lack of livestock and agricultural experience, soil fertility declines more rapidly, so they decide earlier to look for another plot.
- Many Manjo are not able to pay the tax for the land.

Cooperation in agriculture is continuing the historical patron-client relations between both groups. Many Manjo receive land from a Shekacho farmer, also oxen are often borrowed from the Shekacho, for whom in turn they do some labour like fence making etc.. However, this relationship is not based on reciprocity (FREEMAN & PANKHURST, 2001). Few Manjo have oxen in their own group, usually they do not keep livestock at all and have no modern agricultural assets. Common explanations for this continue the concept of greediness and inferiority. The Shekacho and also the Manjo about themselves are saying:

“They/we do not have the knowledge to farm, they/we cannot afford to buy cattle, because the/we cannot save, and if they/we had livestock, they/we would eat it up in one day.”

The driving forces to abandon the farms are also barriers for starting farming. Like for the Shekacho also for the Manjo, who farm, Kojo is the staple food. As an ensete plantation needs three to four years for its establishment

until it can be harvested for the first time, every migration for a Manjo family means 3 – 4 years not to be able to cover the subsistence needs. If one family for example changes its residence 4 to 5 times, as a whole for 12 – 20 years, they cannot live on their agricultural production, and this also explains, why Manjo very often are not even able to start farming. Although ensete is called the “plant against hunger” it does not just facilitate the transition from hunting/gathering to farming and thus the production system itself inherently presents a boundary between the two groups.

Therefore, differences of farming successes can be better explained by differences of access to resources and in ideology, as DEA (2000) is also stating for the relation between Malla and Manja: “These differences are manifestations of differential asset ownership, farming history, food habits, different livelihood strategies, and micro ecology. From this one may conclude that agricultural practices are determined not only by knowledge but also by availability of assets and ideological context of decision making. Thus, the Manja and Malla differences in farming practices are an articulation of differences in resource base and ideology rather than mere technical knowledge of farming.” (DEA, 2000).

Concerning the **food** from farming, the dry season is the hardest season, as it is also the time, when the small amounts of vegetables grown run out first, secondly because the chances to sell fuel wood are less, as Shekacho do it themselves, as it is available in large quantities and it does not interfere with farming activities. Meat from hunting is the only available protein, as due to the lack of livestock there is also no milk, egg and cheese. Moreover it does not look like, that the food from hunting seems sufficient, as all Manjo women try to urge their husbands to farm. Therefore, although the area belongs to the most fertile areas all over Ethiopia and at present it has become a place for resettlements from famine regions, the present practice of exclusion nevertheless restricts the nutritional status of the Manjo.

The **weak position in the land tenure system** was the second reason that was mentioned. Several Manjo told they had been expelled from their land by the kebele or left it due to controversies with their neighbourhood. GORE (1994) points out, that indigenous land tenure rights can be understood in terms of “the powers which society allocates to its members to execute a range or quantum of functions in respect of an given subject matter” (OKOTH-OGENDO, 1989) Thus obviously land allocation reflects and reproduces the powerlessness of the Manjo.

7. Knowledge Sharing and Exclusion from Employment and Markets

Before the revolution the Manjo worked in a form of patron-clientship for the Shekacho and did hard and low or unpaid work for them, as clearing, making fences etc.. Still men and women form debos (working groups) to do this as wage labourers. As said to be polluted, the Manjo are also not allowed to touch edible things, which also could be polluted through their touch. Therefore also their access to certain forms of wage labour is restricted, everything that deals with food, for example harvesting. Also it restricts their radius of action in trading. They cannot sell edible things, at least not directly to the Shekacho. As their main income is from honey production, but Shekacho would not buy it, Manjo sell it to foreign traders. These act also as middlemen, who first buy the honey from the Manjo and sell it to the Shekacho. As also the main income for Shekacho is from honey, this arrangement possibly could give them the first chances for selling.

Preparing fuelwood and charcoal is quite a new job for the Manjo women, which only started with the establishment of towns, and it also is sold to foreigners, “*who did not know the culture of the Shekacho*”, and did not mind to buy the fuel wood from the Manjo. All traded fuel wood is supplied by Manjo women, who are highly involved into cash economy. There might be exceptions, but still the Shekacho claim, that they never buy any wood from the Manjo women. And already in the villages fuel wood is not traded at all, but prepared by the men of the Shekacho families, so also this way of income generation is limited. To sell their fuel wood, Manjo women come near to the market and sell it there, but are not allowed to sell it on the market itself, as any of their goods is polluted, so just buying is allowed.

8. Conclusion : Bridging Epistemologies

While command and control approaches for forest protection mainly have failed, current efforts mainly address the sustainable use of biodiversity, and in this sense mainly the promotion of non-timber forest products, which in the respective area mainly means the improvement of traditional honey harvesting technologies and the use of forest coffee.

As has been shown, beekeeping is the main pillar of the cash economy for both groups and also the main pillar for forest conservation and biodiversity protection. It also has been shown, that the resilience of the traditional bee-keeping system is decreasing

Farmers’ yearly income from beekeeping amounts on an average about 800 – 2000 Ethiopian Birr per year, equivalent to 80 to 200 US \$, and there is currently no other way to earn a higher income by any other non-timber forest products in this area, which is also currently researched by the European Commission. As there is

currently hardly any sufficient market supply for agricultural crops, it is hardly possible to compare it with the monetary opportunity cost for agriculture, however in any case priority will be given to subsistence agriculture over beekeeping. “*The low economic value of the rain forest to local people explains why they might clear forest for other uses*” (Godoy et al, 1997). New approaches of increasing income from modernized beekeeping through public private partnerships may however retard this development, however this needs the exploration of new markets, bridging of different criteria of quality standards and the adaptation of new technologies of beekeeping, like the Langstroth methods etc. (Honey Care, 2001), which however can be combined with the rich traditional knowledge on the vegetation and bee population of the people.

Holy groves serve for species conservation and as sources for renewal and reorganization of ecosystem functioning. As has been shown, with the decline of traditional religion there is a decline of appreciating its spiritual value. However, these places in future still could easily be used as protected areas.

The discrimination and social exclusion of the huntergatherer groups from agriculture forces them into non-sustainable practices of hunting and fuel wood gathering for cash, as due to their exclusion this cannot be integrated into agriculture and leads to a perpetuation of their marginalization due to the extension of traveling and transport distances which increases malnutrition and vulnerability to diseases. Social exclusion moreover increasingly forces the groups among them, who are already in transition to agriculture frequently to abandon their plots.

There are indigenous and traditional ecological knowledge based systems that parallel adaptive management in their reliance on learning-by doing, and the use of feedback from the environment to provide corrections for management practice (Berkes et al. 2000). Flexible social networks and organizations that proceed through learning-by-doing are better adapted for long-term survival than are rigid social systems that have set prescriptions for resource use. In this way Farm Africa tried to integrate Manjos into forest management, however, up to now this project is too young to draw conclusions on it. Other NGOs tried to better integrate the Manjos into farming. As this allows the integration of fuel wood gathering and growing into farming, this both might improve their wellbeing and the sustainability of the ecosystem, however these initiatives are too young to be evaluated.

Nevertheless it can be finally stated, that still the social boundaries of the traditional system restrict wellbeing and development chances of the Manjo on almost every level. Exclusionary principles within the minds of people are reflected in the labour division, the land tenure system and in the mode of production. Although due to the latest political developments the kebeles seemed to be quite open to allocate land to the Manjo, poverty is reproducing itself. HILL (1972) pointed out in another context, that some are too poor to farm. This is also true for the Manjo. However, due to the progressing ecological destruction the concept of providing their subsistence only from the forests will not work much longer.

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