LOCAL WORLDVIEW LINKED RESOURCE PERCEPTION AND CONSERVATION BEHAVIOR: AN EVIDENCE FROM BASKETO AND KAFA (SOUTHWESTERN ETHIOPIA)

Feleke Woldeyes

Ethiopian Biodiversity Institute

Masayoshi SHIGETA
The Center for African Area Studies, Kyoto University

ABSTRACT Traditional societies are characterized by holistic worldviews that shape their perception of the environment and regulate their interactions with the environment. A peculiar perception of the land, coupled with detailed ecological knowledge, is believed to have allowed harmonious existence of local communities with the environment. This study was conducted in Basketo Special Woreda and Kafa Zone of southwestern Ethiopia with the intention of gaining insight into resource perceptions and use norms the local peoples of the study areas, the Basket and the Kafecho. A total of 140 households (i.e., 60 from Basketo and 80 from Kafa), focus group discussion members and key informants were involved in the study. Selection of the households was done by employing a combination of purposive and stratified sampling methods. Semi-structured interviews that focused on different local issues were conducted first and focus group discussions were held next while gathering data. The study revealed that the two communities share some features in terms of sociocultural aspects, landscape categorization and resource us norm. Local religious practices that are conducted to manifest reciprocity, resource perceptions rooted in local belief systems, and resource use norms which are regulated by local rules are still evident in the two localities. The continued existence of the environmental resources to which the livelihoods of the local people are highly linked is believed to be associated with these local phenomena. Nevertheless, the traditional features and practices of local communities are confronted with a serious threat in the face of the expanding modernization and globalization.

Key Words: Worldview; Resource perception; Use norm; Conservation; Basketo; Kafa.

INTRODUCTION

Worldview is the way in which the members of a particular culture perceive their environment, the world or universe (Howard, 1989; Slikkerveer, 1999). It is a socio-cultural concept that encompasses people's beliefs and understandings about the origins of the universe, and the place of humans in it (Brockelman, 1997; Olugbile et al., 2009). Worldview gives shape to cultural values, ethics, and the basic norms and rules of a society; and it also structures observations that produce knowledge and understanding (Berkes et al., 2000).

The different ways of conceptualizing and understanding nature, which provide a diversity of frameworks of interaction with the natural world, are dynamic products of historical and cultural contexts (Ellen, 1996; Mathez-Stiefel et al., 2007). Accordingly, every traditional culture known to anthropology has had its

own way of viewing the universe (Abrams & Primack, 2001); and worldviews of traditional peoples are known to be holistic (Descola, 1996; Ellen, 1996; Slikkerveer, 1999).

Peculiar features that reflect the holistic nature of local worldviews have been reported from studies conducted in different parts of the world. The Hawaiian people's belief that they constitute part of nature and vice versa (McGregor, 1999); the understanding of native inhabitants of the Marovo Lagoon in the Solomon Islands that components of their environment (organisms, non-living entities and humans) do not constitute a distinct realm of nature (Hviding, 1996); the outlook of Amerindians of the Amazon that humankind is a particular form of life participating in a wider community of living beings (Arhem, 1996); Andean people's view that humans are not independent subjects opposed to an objective world (Mathez-Stiefel et al., 2007); and the Australian aboriginal peoples belief that there is a direct connection between themselves and their country through their connection to their ancestral beings (Bennet, 1999) are examples that could be cited in connection to the way local communities view nature.

The respect dedicated to earth and its components is the other important aspect associated with local worldviews. As Balick & Cox (1996) pointed out, many indigenous cultures perceive the earth as existing not in the realm of the profane but in the realm of the sacred. Therefore, the need for protecting the earth and components of the local environment is emphasized. Posey (1999) also indicated that harmony and equilibrium among components of the cosmos are central concepts in most traditional worldviews. Australian aborigines tradition of conceptualizing humans and other entities of the physical world on equal terms (Howard, 1989), and the Andean philosophy of reciprocity (Gonzales et al., 1999) are expressions of the commitment to attain such harmony.

An additional feature inherent to local worldviews is the animistic belief system—the belief that all natural things have spirits—as held by the Altai people in Siberia (Klubnikin et al., 2000). According to these authors, landscape features and natural entities are central elements in the animistic spiritual belief system of these indigenous people; and components of the landscape are understood to have spirit owners who need to be acknowledged and honored. Negotiations are made between the natural and the spiritual world through the shaman (a wise man who has a special power to do so) on behalf of the community.

Local worldviews have often been seen by outsiders as an impediment to progress in the past although such attitudes are changing (Curry, 2000). Recently however, Understanding worldviews of local people is getting increased attention, particularly in light of acquiring insight into local knowledge and practice that result in sustainable outcomes. While Cunningham (2001: 253) stressed the need for giving sufficient attention to local outlooks by his remark "If we are to understand people's conservation behavior, we have to understand the 'worldview' that people have," Berkes (1999) came up with a hierarchical framework of analysis which portrays that worldview rounds out the knowledge-practice-belief complex.

Despite the ongoing debate on the prevalence of deliberate conservation among local societies (Alcorn, 1993; Alvard, 1993; Posey, 1998; Smith & Wishnie, 2000;

Maffi, 2004; Hames, 2007), and in spite of calls for caution from romanticizing local practices (MacDonald, 2004; Cocks, 2006), sustainable resources utilization and maintenance of biodiversity (Beltran, 2000; Persic & Martin, 2008) and sometimes deliberate conservation or enhancement of species and habitats (Smith & Wishnie, 2000) are recognized to have been practiced by these societies. The tradition of wise utilization of environmental resources by traditional communities is explainable in terms of their environmental outlook or perception (worldview) and their ecological knowledge.

As noted by different authors (Degh, 1994; Berkes, 1999; Slikkerveer, 1999; Curry, 2000), worldviews structure observations of the environment, frame individual actions, regulate peoples' interactions with their environment, and also shape social institutions. The environmental perception of traditional communities is a product of their strong link with and dependence on the land and all of its resources. Their relationship to land constitutes an important part of their identity; and its components which they live with underpin the foundation of their very survival (Christie & Mooney, 1999). As a consequence, the land together with all its physical elements is considered as sacred (Balick & Cox, 1996; Posey, 1999; Klubnikin et al., 2000) and also perceived as alive (Adimihardja, 1999; Gonzales et al., 1999). Such communities are equipped with skills which enable them to sustainably manage very complex ecological systems (Lertzman & Vredenburg, 2005).

Being guided by peculiar environmental perception and through a detailed ecological knowledge base, local people developed wise resource use norms and successful management practices. Appropriate behavior towards nature which is based on shared cultural values and social rules has been cultivated (Alcorn, 1999). In some of these societies, resource use is limited to one's own sustenance allowing natural resources to reproduce; members share with neighbors what they gathered; and they plan and adjust their subsistence activities on the basis of understanding such aspects as abundance and distribution (McGregor, 1999; Mathez-Stiefel et al., 2007). Laws that prohibit use of limited recourses and those that proscribe overuse and destruction of resources have been developed in such societies (Balick & Cox, 1996; Plenderleith, 1999).

Ethiopia is a country with diverse traditional communities with the total population projected to be 107 million by 2022 (CSA, 2013). While Yonatan Tesfaye (2010) described the nation as a conglomeration of heterogeneous societies under one state, an enormous diversity in the fields of religion, language, culture, socio-economic activities and governance structures is mentioned to be characteristics of the larger population (Van der Beken, 2012). The traditional peoples of Ethiopia lived for millennia inhabiting the diverse environmental settings of the country thereby exerting impacts on the environment and the available biological diversity through a variety of cultural practices. The Southern Nations Nationalities and Peoples Region (SNNPR) is one of the regional states to which the majority of the nationality groups belong. The present paper is an output of a study conducted focusing on two traditional groups in this region: the Basket and the Kafecho of the Omotic language group. Aspects of local belief systems, resource perceptions and use norms were considered to find out if there exists a link between the

practices and resource conservation. In the paper, study area and methods, results and discussions are presented as main body following the introduction section while concluding remarks are made at the end.

STUDY AREAS AND METHODS

The Study Areas

The study was conducted in two areas of the South Nations, Nationalities and Peoples Regional State (SNNPRS), namely Basketo Special Woreda and Kafa Zone (Fig. 1). SNNPRS is one of the nine regional states of Ethiopia. The administrative hierarchy in the Regional States of Ethiopia, from top to bottom, consists of the Region, Zone, Woreda and K'ebeles. In SNNPRS, there are administrative units called Special Woreda that consist of K'ebeles and are directly accountable to the Regional State. SNPPRS is the fourth largest region in land area (112,343.19 km²), and the population inhabiting the Region is estimated to be 22 million by 2022 accounting for about 21% of the country's total (CSA, 2013). The region, which is home to more than fifty ethnic groups, is known for its rich cultural and biological diversity.

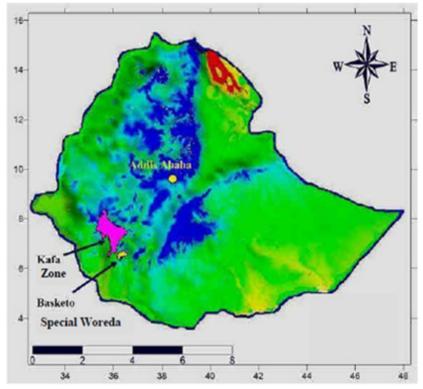


Fig. 1. Map of the study sites, Basketo and Kafa.

The main town of Basketo, Laska, (06°18' N, 36°37'E; 1,860 m.a.s.l.) is located at 581 km southwest of Addis Ababa. Total land area of Basketo is 2,382.35 km² with altitudes ranging from 700 to 2,200 m.a.s.l. The topography of Basketo is characterized by undulating surfaces with steep slopes on the eastern and western parts and ending in two rivers: Irgino in the east and Usino in the west. Following the agro-ecological zone classification scheme by MoA (2000), Basketo falls under *tepid to cool sub-humid mid highlands* sub-zone which is characterized by fertile soils and favorable climate for plant and animal growth. The mean annual rainfall of the area is 1,376 mm with the highest being 1,578 mm while the rain pattern is characterized by a two peaks. Basketo Special Woreda is inhabited mainly by members of Basket ethno-linguistic group that belongs to the Omotic language family.

Almost the whole Basketo land is transformed into an agricultural landscape. The natural vegetation of the area is represented by patches of sacred groves, trees and shrubs in homegardens, crop fields, and hedges on mid and high altitudes. Remnants species of an original vegetation that are commonly encountered in the area suggest that the vegetation of Basketo hills represents a transition from Dry to Wet Montane Evergreen Forest type (Sebsebe Demissew, personal communication). While agriculture is the major subsistence activity, the homegarden (aal-oos-gad) is the major place of production with additional cereals are produced in adjoining lands and lowland crop fields. Tuber crops (enset, yam, taro, and sweet potato), cereals (maize, sorghum, barley), pulses and vegetables are the major food crops while coffee, t'eff (Eragrostis tef), maize, and kororima (Aframomum corrorima) constitute the chief cash crops. Cattle and small farm animal are also raised by households and used for various purposes.

Kafa Zone is within SNPPRS and covers a total land area of 10,610.39 km². Bonga (7°16' N, 36°14'E; 1,760 m.a.s.l.), the main town of Kafa Zone, is situated at 415 km southwest of Addis Ababa. The Kafa landscape is dissected by numerous small to large rivers and exhibits highly diverse topography including flat plateaus, undulating to mountainous terrain and very steep slopes. The altitudes of the zone range between 900 and 3,300 m.a.s.l. Gojeb, Weshi, and Dincha are the main rivers in the region and belong to the Omo River drainage system. The Kafecho, the indigenous people of Kafa, constitute the largest portion of the population inhabiting the zone.

Kafa Zone is among few places in Ethiopia endowed with a relatively good forest cover although habitat conversion into new land-use systems is depleting the biological resource. In a recent treatment in the Flora of Ethiopia (Sebsebe Demissew & Friis, 2009; Friis et al., 2010), the vegetation of the area is characterized as Moist Evergreen Montane Rainforest occurring between 1,500 and 2,600 m.a.s.l. The livelihoods of the Kafecho people are mainly based on agriculture. The homegardens (*daadde-goyo*), which are integrated with the forest system, are the major place of production with additional cultivation of cereals in adjacent fields. While *enset* is the major source of food in highland areas, cereals such as maize and sorghum constitute the main food in lowlands. In addition, different tuber crops (yam, taro, and *ajjo* (*Coccinia abyssinia*)), cereals (barley and millet), pulses and vegetables are used. Coffee, maize, *kororima* and

sorghum are the main cash crops. Cattle and small farm animals are raised for household uses and also for income generation. Beekeeping is an important activity to the Kafecho people since it contributes significantly to households' income; and this traditional honey production is intimately linked to the forest.

Methods of Data Collection

The study sites, Basketo Special Woreda and Kafa Zone, were selected on the basis of an earlier personal study (in the case of Kafa) and preliminary observation (in the case of Basketo). The sites were judged convenient for the study since the local inhabitants exhibit traditional features such as linguistic relatedness, farming practices and food culture besides similarities in land features and climatic conditions.

Investigations were conducted by employing ethnobotanical methods; and ethical considerations pertinent to such kind of studies were made from the beginning of the study. Accordingly, all concerned bodies along the administrative hierarchy (i.e., Zonal, Woreda and K'ebele officials as well as other community members) were informed about the research and prior consent was obtained. A total of 140 households were sampled (i.e., 60 from Basketo and 80 from Kafa) from K'ebeles in different agro-ecological zones (Fig. 2). Selection of the households was done by employing a combination of purposive and stratified sampling methods.

Semi-structured interviews were conducted during the different visits to the households focusing on different aspects: socio-political features, religious practices, uses of plants, perception and valuing of diversity, local resource use norm and management. Focus group discussions were held to consolidate information obtained through interviews held at household level and also to generate new data. Participants of the group discussions, who belonged to different age groups and sexes, were selected by applying snowball sampling (Bernard, 2002) and also inviting people from neighboring K'ebeles who converge at village markets. Information on land-use systems other than homegardens (bamboo land, sacred grove, grazing land, wetland, and forest) was collected through guided field interview.

RESULTS

Sociocultural Features

Basket people claim that they are descendants of a Gamo group that arrived in the area around the 15th century and who gradually diluted small autochtonus groups (Kaati Mazgo Garda, personal communication). Basket people are subdivided into more than 50 *k'omma* (lineage groups or clans).

The smallest spatial unit for Basket people is the *aal-bess* or *aal-oos-gad* (the living quarter and the garden) that belongs to *aal-ase* (a family consisting of households of the father and his married sons). A group of *aal-bess* forms a *muura* (holding of families with stronger kin relationship). Aggregates of *muura*

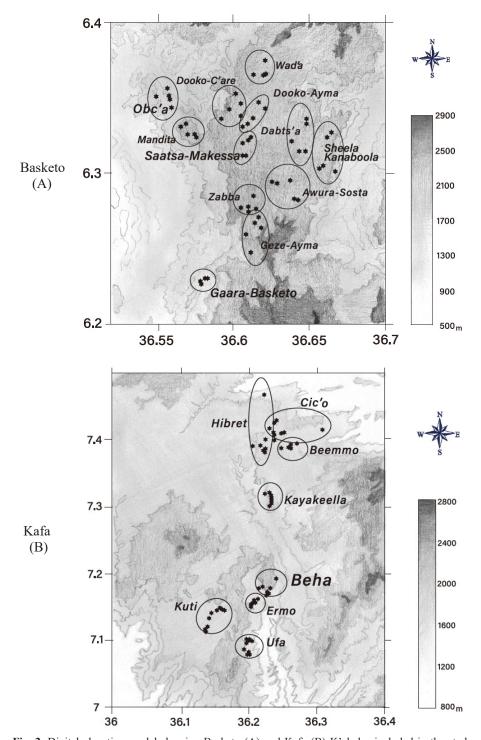


Fig. 2. Digital elevation model showing Basketo (A) and Kafa (B) K'ebeles included in the study.

make a *dootse* (neighborhood) which used to be inhabited only by members of a single lineage (*k'omma*). The Basket people trace descent through male lines, and hence they are a patrilineal society. When considering system of labeling kin, all relatives of the same sex in the same generation are labeled by the same term (For example, a term equivalent to the word 'father' is applied to the actual father and uncles). Marriage between members of the same lineage is prohibited while intermarriage is possible only between members of lineages of equal status.

The traditional leadership consists of a hierarchy of posts that descends from the *kaati* (chief) to the ordinary person. Seven *kaati* function simultaneously, each is in charge of his respective area, with the eighth, *ira kaati*, being a rain chief (*ira* means rain). Under the *kaati* (chief), there are hierarchical posts: *Daanna*, *Guuda*, *Goda/ts'oyta*. Both the *kaati* and officials along the lower hierarchy are in charge of both political and spiritual responsibilities. A status difference between the *kaati* is expressed in terms of seniority or priority to act during public events when the different chiefs come together.

Kafecho people identify themselves to belong to different *yaro* (lineage group); and more than 90 such lineages (clans) were listed during the survey. In Kafa, marriage among members of the same lineage is not allowed, and intermarriage is also limited to some lineages. Kafecho people have a patrilineal descent system. They use different terms when referring to relatives of the same sex in the same generation with the only exception being the application of identical terms when referring to cousins and siblings (i.e., the term *Mano* is used when addressing sons or male cousins while *Mare* is used when referring to daughters or female cousins).

According to local people (Ogarasha Haile Keto, Ato Woldemichael Keto, personal communication) and also the available literature on Kafa (Bekele Woldemariam, 2004), Kafa had a structured leadership that goes down from the King (*Taato*) to the ordinary citizen (*Asho*), the other ranks in between being *Taate-Kisho*, *Woraafo*, *Gaachche-Ukiro*, and *Xuggo woraafo* in descending order. The socio-political structure of the Kafa kingdom was mentioned to be complex with *mikrecho* (the consultative council) being a typical feature of the administration.

The Local Landscape as Perceived and Categorized by the People

The Basket and Kefecho people understand their landscape in their own way and categorize it into components. Accordingly, the Basketo landscape is divided into eight parts: *aal-oos-gad* (homegarden), *oos-gad/wot-gadi* (crop field), *ts'oose* (sacred grove), *maata* (grazing land), *wooshi-gad* (bamboo land), *duufa* (burial ground), and *c'oc'a* (wetland). *Dubashe*, an under tree gathering site where various social issues such as dispute settlement are entertained, is also a component of the landscape.

The *aal-oos-gad* (homegarden) is the major food production unit owned by every household. *Oos-gad/wot-gadi* (crop field) provides supplementary produce to the household. This land use system can be situated either close to the living quarter or at distant lowland places. In the latter case, it is referred to as *zara-*

wot-gadi (lowland crop field). The crop fields that are situated close to the house share a number of cultivated crops including tubers with the homegardens. They are most likely convertible into homegardens. Most households but not all have crop fields. Ts'oose is a sacred grove consisting of remnant forest species. Ts'oose is found in each muura—a family's holding (an extended family consisting of households of the father and his married sons). It is the place where the body of senior members of the muura is rested when they pass away, and is a sacred site where offerings are presented to ancestors (their spirits). Duufa is a burial ground showing structural similarity to ts'oose since it shares similar plant species whilst differing functionally. Fallowed lands and abandoned farm lands serve as grazing land (maata), and they may belong to a family or a neighborhood. Since the landscape is characterized by hillocks, wetlands (c'oc'a) that stretch between hills adjoin different villages. Wooshi-gad (bamboo land) is located at the margins of wetlands, usually bordering the homegarden. Dubashe, the public gathering site marked by a big tree (usually Podocarpus falcatus) is found at neighborhood (dootse) level. The above-mentioned landscape organization is characteristic of mid and high altitude areas of Basketo since the lowlands have largely been used as crop fields. Permanent settlement in lowlands is only a recent phenomenon. Fig. 3 shows the human-managed Basketo landscape.

The Kafa landscape, that still retains a significant part of its original forest is categorized into *daadde-goyo* (homegarden), *gaddi-goyo/buddi-goyo* (crop field), *tusho* (bush land), *gaddo/bakko* (grazing land), *shinaata* (bamboo land), *koho* (wetland), *kubbo* (managed forest), and *guudo* (less-disturbed forest). The sites once used as burial ground (*maasho*) are no longer present in the area since their role has been taken over by churchyards.

The *daadde-goyo* (homegarden) is the main unit of food production. The *gaddi-goyo* (crop field) which normally starts from the back part of the homegarden leads, in most cases, into the forest. *Tusho* (bush land) makes part of the garden and then comes *gaddo* (grazing land) which may belong to a household (*kechi-*



Fig. 3. View of Basketo landscape. Photo: Feleke Woldeyes.

asho), a group of households predominantly of a single lineage (gafo), or neighborhood (giyo). Bakko is a larger-sized grazing area at the periphery of the village and used by the whole community. Wetlands (koho) are less frequent in the settlement areas but are commonly owned important habitats which provide diverse services. Shinaata (bamboo land) is restricted to wet places in lowland areas, but encountered at different points in the landscape at higher altitude areas. The forest component of the landscape is classified into two types: kubbo and guudo. Kubbo (the managed forest) occupies land that descends from the crop field down to streams at the bottom of gorges. This forest type is usually owned by a household or households descended from a common parental generation. In areas where land and forest resources are becoming scarce, there is a growing trend of exploiting it at communal level. Guudo (the less-disturbed forest) is located at the outermost part of the settlement (next to kubbo) occupying a gradually rising terrain. Fig. 4 shows the human-managed Kafa landscape.

Local Religious Ceremonies that Mark Connectedness

Traditional religious practices do still occur in Baskeo and Kafa despite dominance of modern religious teachings. Two religious engagements that take precedence in this connection are *kaasha* (in Basketo) and *k'oolle-deejjo* (in Kafa).

The Basket, who believe that this world is connected to the world of spirits, conduct *kaasha* ceremony through which offerings are presented to ancestors (their spirits). *Kaasha* may take different forms but there are two major types: *bargi-kaasha*—that conducted during the rainy season /June–July/ when crops like yam and maize become ready for harvest, and *seeti-kaasha*—that conducted during the dry season /November–December/ after harvesting cereals like *t'ef*, sorghum and barley. The intention of holding the ceremony at this particular point is to sacrifice the first portion (the 'tip') of the harvest to ancestors and the creator.



Fig. 4. View of Kafa landscape. Photo: Feleke Woldeyes.

Kaasha ceremony is conducted in two places in the landscape: at ts'oose (sacred grove) and at aldira (section of the homegarden). The ritual conducted at ts'oose is tribute to spirits of male ancestors, and organized at the extended family level. The rite is led by a ritual leader, ts'oyta or god. The kaasha conducted at the homegarden is in commemoration of spirits of female ancestors, and occurs a day after that of the ts'oose. It is organized at household level with the bayra (the elder) leading the prayer. The sacrifice at kaasha normally consists of food prepared from the new harvest and a local drink called farsa while animals are killed occasionally. During the prayer, names of ancestors are chanted (i.e., they are communicated about the offerings), and asked for their blessing so that every good thing will happen to the community.

Plants are integral part of *kaasha* ceremony. Though all the species of the sacred forest (*ts'oose*) are somehow associated to *kaasha*, some are of special significance. The ceremony is conducted right under a giant *ocha* (*Syzyygium guineense*) or *maara* (*Ficus ovata*) tree, which sometimes is fenced with *waasha* (*Dracaena fragrans*). The succulent leaf sheath base of *uuth/enset* (*Ensete ventricosum*), and leaves of an herb called *sagita* (*Drymaria cordata*) are also used in the occasion. On the other hand, only selected varieties of *Ensete ventricosum* are planted in the section of the homegarden where *kaasha* is conducted. The ritual is performed at the corner where a few individuals of *E. ventricosum* and a plant called *kordda* (*Kalanchoe petitiana*) are encircled by a live fence of *Dracaena fragrans*.

The Kafecho aloso hold an event of communicating with the world of spirits. As noted by Bekele Woldemariam (2004) each lineage group (*yaro*) and each locality has its own spirit (*eek'o*), and there are spiritual leaders (*allaamo*) who mediate between spirits and the people. *K'oolle-deejjo* is the major ritual conducted to thank the spirit of a locality or area of land.

The thanksgiving ceremony, which is organized at a village or wider area level, is conducted in the *kubbo* (managed forest) or *guudo* (less-disturbed forest) in the presence of a large crowd twice a year: when maize is ready for harvest (July–August) and at the time of threshing *t'ef* (December). Like in Basketo, the reason for holding the ritual at the specified juncture is to present the first portion of the harvest, but in this case the sacrifice is made not to ancestors but to the owner of the land (spirit of the land). *K'oolle-deejjo* is performed only under selected forest tree species and these include *meello* (Ficus vasta), *yiino* (*Syzygium guineense*), *buto* (*Schefflera abyssinica*), *oomo* (*Prunus africana*) and *c'aaro* (*Ficus sur*). The ritual is led by *allaamo* (the medium) or elders selected in prior consultation with him. Boiled fresh corncob, *k'uc'o* (bread made from maize or *t'ef* flour), *shokko* (a local beer), chicken and less frequently sheep, goat or non-castrated bull are sacrificed. Through the prayer, participants beg for good health, peace and prosperity.

Local Resource Perception and Use Norm

The Basket and Kafecho people exhibit peculiar resource use norm when extracting resources from sacred sites and other components of the landscape.

While both Basket and Kafecho people display some common resource use behavior, there also exist norms followed by each community alone.

In Basketo, where a clear division of the homegarden into four parts (front part, backside, the elevated part and the part descending into marginal wetland), women are prohibited from entering the upper garden section (aldira) where the kaasha ritual is performed. This garden section is planted mainly with enset (Ensete ventricosum) varieties that are known for their best quality tuber and harvested only under certain circumstances (during festivals, when a guest is received, during the rainy season, and when there is shortage of food). Only men and a young girl who has not started her period are allowed to enter so as to ensure the purity of the ritual site. As a result, enset is harvested by men—only occasionally—unlike its frequent harvest by women from the other parts of the garden. The other harvest related norm is that community members refrain from using some newly harvested crops (that are presented as sacrifice) before the use of the products is officially allowed through performing kaasha (thanksgiving) ceremony.

The sacred forest, *ts'oose*, is one of the sites where a strict resource use norm is followed when extracting resources. As it is the main ritual performing place, cutting trees and grazing cattle is strictly prohibited. Despite the scarcity of fuel-wood source vegetation in Basketo, households do not collect fire wood any time they want. Instead, they harvest dry wood only during some occasions like annual festivals; and this is done only after an announcement is made by the person (an elder) in charge of looking after the sacred site.

Similar restraints in resource exploitation are observed in Kafa also. Either cutting trees or grazing cattle is taboo in the part of the managed forest (*kubbo*) or denser forest (*guudo*). As there is abundant forest resource, emphasis is given to the big trees under which the thanksgiving rituals are held. As the Kafecho are people with a long history of association with the forest, they highly value forest as a whole and some species are given special importance. The perception attached to the plant called *yiino* (*Syzygium guineense*) and its management constitutes an ideal example in this regard. It is a norm to use the timber from this forest plant species as a main post of the living house. As a result, an adult who wants to renew his house or a youngster who wants to construct a new one assess in the jungle for a young plant of the species and puts a mark (usually a climber around the stem) on the tree. This sign signals the message that the tree belongs to somebody avoiding harvest by anyone who comes across.

Restraint in harvesting resources in locations other than sacred sites is observed in both Basketo and Kafa. The case in point in this connation is the seasonal refraining from using resources from wetlands. These habitat systems which serve as a source of diverse resources (e.g., water for household consumption and cattle, construction materials, medicine, and grass for cattle) are highly valued. Converting wetlands into other land use systems or extracting resources outside the prescribed period is strictly prohibited. Everybody in the community watches out the status of wetlands; and any violation of the locally accepted use norm will lead to punishment that may be as severe as social exclusion. A local farmer and village leader in Kafa indicated how these habitats are vital to local livelihood by the

following remark:

The wet land is the base for our livelihood. The oxen we use for tilling the land to produce crops and our cows that provide milk to the children survive the dry season due to the wetland. Recently, people who wanted to produce horticultural crops on the wetland came to our village and disclosed their intention. All the villagers seriously objected the motive and the idea was dropped.

In Basketo, people avoid cutting bamboo during the early months of the rainy season for the adult plants at this stage are considered as 'nursing mothers'. A less noticeable but routine practices observed in the two communities is the tradition of avoiding resource consumption to the last drop. Accordingly, it is a custom to leave behind some food in the cooking pot; some grain is left behind in the granary under whatever food scarcity condition; and a minute portion of produce brought to market for sale is taken back.

DISCUSSION

As the study results revealed, there exist similarities between Basket and Kafecho communities in sociocultural features. This, of course, is expected as both nationality groups considered to belong to the Omotic ethno-linguistic assemblage which Data (2000) described as a group consisting of diverse yet deeply interrelated smaller groups in southwestern Ethiopia. Although there are evident resemblances in aspects like existence of multiple lineages (clans), descent tracing system, kin labeling, marriage norms, local belief systems and resource use norms, there also exist differences.

The Basket people's claim that they descended from members of the Gamo people who arrived some generations back appears justifiable in light of similarities observed in socio-political organization (e.g., some ranks in the administrative hierarchy are named identically), cultural practices (e.g., close similarity is evident in the thanks giving ceremony), locality names (some village names share identical words), and the obvious relatedness of languages spoken in the two areas. The kin labeling system of Basket people can be classified as the Hawaiian type which is characterized by labeling all relatives of the same sex in the same generation by the same term (Howard, 1989).

With regard to the Kafecho, as the marginalized Manja and the rest of the population are recognized to be members on one group (Kafecho) by all and speak one language (*kafinoono*), it is difficult to envisage far reaching differences in terms of origin. Moreover, since the observed major differences between the two groups relate to settlements (as the Manja live in peripheral areas) and occupation (to a certain extent), there is no strong ground for speculating invasion and dominance by one group over the other. The frequently told legend that holds that the two segments descended from an elder and younger brother also favors this notion. The kin labeling system of the Kafecho shows difference from that

of the Basket since different terms are used when referring to relatives of the same sex at the level of the parental generation.

Concerning the socio-political structure, the Kafecho system appears to be more centralized as the whole area had been governed by a king, a consultative council, and local chiefs of different ranks up to the end of the 19th century (Bekele Woldemariam, 2004). However, the traditional administration hierarchy is completely replaced by the modern system and even traces are not evident at present. On the overhand, the traditional socio-political structure in Basketo is still in existence and has some role to do (particularly with respect to cultural and religious life of the community). The persistence of the traditional leadership structure so long after the introduction of a centralized governance system could be attributed to the dual role (both spiritual and worldly matters) a local leader had to discharge.

Categorization of the landscape by the local peoples of Basketo and Kafa is basically similar indicating a resemblance in perception of the local environment. Some major criteria are used in recognizing component part of the landscape as a unit. These include: type of dweller (living humans and spirits), purpose the land is used for (living corner, place for production, source of materials, and gathering site), vegetation cover (permanent/seasonal and diverse/few kinds), and ownership (private, kin group, and communal). The detail analysis is presented in Table 1.

As the information in Table 1 reveals, the local environment consists of component parts which together make the whole. Out of the 11 units of the combined landscapes of the two areas, only three are cultivated. Nevertheless, all are valued and perceived important for their role in subsistence and also due to rationales that extend to the worldview realm. The majority of the land-use systems are owned collectively and there is a tradition of sharing resources even from private ones. This can be interpreted in terms of strong interconnectedness among community members. The difference in land scape units between the two areas (i.e., *Ts'oose*, *Duufa* and *Dubashe* of Basketo versus *Tusho*, *Kubbo* and *Guudo*) appears to be attributed to the evident difference in the vegetation cover of the localities. In Basketo, where much of the original vegetation cover is lost, these spots represent the forest ecosystem and are maintained to perform social and spiritual functions.

As indicated in the result section, two major religious practices (*kaasha* in Basketo and *k'oolle-deejjo* in Kafa) that involve sacrificing food and drinks to the spirits of ancestors or lineage groups take place with the objective of maintaining an equilibrium among the components of the cosmos. These rituals are expressions of local worldviews that are supposed to be holistic as this is a shared feature of every traditional society (Howard, 1989; Slikkerveer, 1999; Abrams & Primack, 2001). In these religious rituals, components of different spheres of the local environment take part. These include the earth, living things (including plants, animals and humans) and spirits. The spiritual performances suggest that peculiar features of worldviews of traditional peoples such as the perception that humans and nature are united and inseparable (Bennet, 1999; McGregor, 1999), the norm of respecting the earth and its components and thereby maintaining harmony

among the various elements (Howard, 1989; Balick & Cox, 1996; Gonzales et al., 1999; Posey, 1999), and the belief that natural things have spirits (Klubnikin et al., 2000) are inherent to the belief systems of the Basket and Kafecho.

As indicated above, the different components of the local environment (humans, plants, animals and spirits) come together at the ritual sites during the ceremonies. This demonstrates the oneness and respect among the different components of the cosmos. Since the location where the ritual is conducted (i.e., sacred grove or forest) is a territory where people do not perform customary duties, it symbolizes an external world which is appropriate for the summit. Offerings are presented under trees in a solid, liquid and smoke form while prayers are chanted by

Table 1. The congruence between Basket and Kafecho landscape categories.

			1 2
space categories			
Basket	Kafecho	English equivalent	Characteristic features of the space category
Aal-oos-gad	Daadde-goyo	homegarden	Cultivated, diverse crops, permanent vegetation cover, subdivided into sections, living quarter, privately owned
Oos-gad/ wot-gadi	Gaddi-goyo/ buddi-goyo	crop field	Cultivated, cereals dominate, seasonal vegetation cover, periodically fallowed, privately owned
Maata	Gaddo/ bakko	grazing land	Uncultivated or fallowed, grasses and some bush, permanent vegetation cover, source of animal feed, individual or communal land *
Wooshi-gad	Shinaata	bamboo land	Cultivated, bamboo trees, wetter land, permanent vegetation cover, source of raw materials, privately owned
C'oc'a	Koho	wetland	Uncultivated, wetland, permanent vegetation cover, source of animal feed and raw materials, communal land*
Ts'oose		sacred grove	Uncultivated, spontaneously growing trees, permanent vegetation cover, respected and accessed only by some, place for rituals, communal land*
Duufa		burial ground	Uncultivated, spontaneously growing trees, permanent vegetation cover, respected, resting place after death, communal land*
Dubashe		under tree gathering site	Uncultivated, space under large-crowned tree, adjacent to an elder's house, elders' gathering site, Jointly owned**
	Tusho	bush land	Uncultivated land, bushy shrubs, permanent vegetation cover, source of raw materials, communal land*
	Kubbo	managed forest	Partially cleared, forest species, adjacent to farmland, coffee land, individually or jointly owned**
	Guudo	less-disturbed forest	Dense forest, remote in locations, state owned

^{*} Accessed by all inhabitants of a village and considered as collective property.

^{**} Owned by households with kin relationship.

attendants at the event. The use of verbal communication indicates that the components of the local environment can listen to and understand each other. It is the earth, the trees and spirits that are served first with the offerings (the first portion of the first harvest) whereas humans come next. This, in the first place, could be taken as manifestation of the respect dedicated to the earth and its other components. Secondly, it is a matter of exercising the philosophy of reciprocity. The earth and spirits that nurture humans are being nurtured in their turn. This reciprocal nurturing is believed to bring about the highly intended harmony among members of the local cosmos.

The thanksgiving rituals, which are somewhat similar to 'first fruits' ceremonies of the tribes of the Columbian Plateau of American Pacific Northwest (Winthrop, 1999), have an additional role of strengthening the social bond among community members. Feasting together is interpreted as a commitment to share the good and the evil. It is in this way that the rituals help in gluing the attachment among members of the communities. Since the rituals are conducted only when crops are ready for harvest in all households of a locality, community members enjoy the fruit of the earth (the new harvest) at the same moment; and it is in this manner that the rituals avoid sense of discrimination which could have originated from differences in wealth status.

The significance of local worldview in shaping resource management and utilization is quite noticeable in Basketo and Kafa. As pointed out by different authors (Reichel-Dolmatoff, 1976; Degh, 1994; Berkes, 1999; Slikkerveer, 1999; Curry, 2000) worldviews shape peoples' interaction with the environment. Management and utilization of environmental resources fall within the spectrum of such interactions. Resource management and utilization norms of the Basket and Kafecho peoples are identical in many respects to those practiced by indigenous people around the world. Four of the six local resource management practices—monitoring resource abundance and change in ecosystems, protection of vulnerable life history stages, protection of specific habitats, and temporal restrictions of harvest (Berkes et al., 2000; Colding & Folke, 2001)—are exercised by peoples of the study areas.

The constant watching out of wetlands by almost everybody in the community exemplifies the resource monitoring behavior of the Basket and Kafecho peoples. The Basketo people's tradition of restraining themselves from cutting bamboo during the early months of the rainy season demonstrates local people's protective behavior of reproductive stages. Habitat protection is the most noticeable conservation practice since clearing the sacred groves in Basketo and forests in Kafa as well as converting wetlands into other land use systems or extracting resources outside the prescribed period is strictly prohibited.

Resource use and management practices mentioned above imply restrictions on resource utilization. These restrictions are made effective through social taboo and other rules whose violation leads to punishments such as social sanctions. Although the classes of taboos identified by Colding & Folke (2001) are less useful in explaining the situation in Basketo and Kafa (as they mainly pertain to animal resource utilization), they provide the ground for visualizing taboos that influence resource exploitation in the two areas.

The prohibition of Basketo women from entering into the *aldira* section (elevated part) of the garden, which may be labeled as 'boundary taboo' or 'gender-based taboo' together with other such gender-related restrictions, avoids frequent harvesting of *enset* (*Ensete ventricosum*). This in turn allows the plants to stay longer in the garden (till flowering) thereby creating the possibility of interbreeding. This must have contributed to the creation and maintenance of quite a large number of *enset* varieties some of which are high quality types and described by the society as *enset* of *aldira*.

Restrictions that almost totally ban using resources either in the form of harvesting or grazing of cattle in the sacred groves and forests where religious rituals are conducted, which can be referred to as 'site taboos', are of a great conservation function. Sacred groves of the mosaic Basketo landscape, which supposedly are remnants of the Montane Evergreen forest that once covered the area, are believed to have survived because of such restrictions. The ecological functions of these sacred sites are diverse. The fact that 58 plant species (28% of the total documented at the landscape level) are recorded from these habitats is a clear indication of the conservation role of these habitats. Spontaneously growing coffee and *kororima* are among the species encountered in the sacred groves, and this forms the ground for envisaging the possible role of these sites as seed banks for the economically important crops. No doubt that these protected areas are breeding sites of birds and other small animals which may serve important ecological functions such as pollination, seed dispersal and pest control.

The restrictions on exploiting resources from the sacred sites of Kafa may not be as obvious as those of Basketo since the area is with high vegetation cover. However, the fact that rituals are conducted under big trees must have been responsible for the Kafecho behavior of refraining from felling big trees. This, in turn, must have contributed to maintaining the forest systems intact until the recently witnessed degradation.

Conservation of wetlands is also attributed to strict social rules; and the commitment displayed to maintain these habitats of diverse resources clearly shows how local people value natural systems and are determined to conserve them for ensuring sustainable utilization. The norm of keeping some portion of a resource or product (whatever the size may be) at home may also be linked to the notion of keeping some resource for future use. This behavior, by extension, could be viewed as the local peoples' tendency to keep planting materials which would be used as seeds during the next cropping season and also ensure ownership of valuable germplasm. Generally Basket and Kafecho societies attach importance to maintaining diverse local resources as demonstrated by their sustainable management of resources in the landscape units as well as diverse crops in homegardens. This, in turn, indicates their perception of biological diversity and the value they attach to it.

CONCLUSION

Both Basket and Kafecho peoples retain, at least in a remnant form, local belief

system or worldview. The core philosophy upon which the worldview is built up on appears to be connectedness. There exists a strong sense of connectedness to the earth since people (at least some of the lineages) are believed to have originated from the soils of the land. The present generation is also connected to the past and the future through spirits that are considered to be members of the larger community. The connectedness is maintained through thanksgiving ritual ceremonies like *kaasha* (in Basketo), *k'oolle-deejjo* (in Kafa) and other rituals.

The findings of this study clearly indicated that worldviews of the two communities have had a major role in shaping their local resources perceptions which resulted in conservation-oriented resource management practices and use norms. The significant amount of diversity demonstrated at different levels of Basketo and Kafa landscapes in different forms (i.e., habitat, vegetation type, land use type, specific and genetic), and the local people's tendency to use resources in a sustainable manner stands in favor of this observation. The Basket and Kafecho peoples' resource management and use practices, which are based on deep local knowledge and certain rules, have undoubtedly contributed to maintenance of components of the environment. This, therefore, gives a solid ground to argue that local worldview attached resources management practices by traditional communities have significant bearing on resource conservation.

Nevertheless, it appears that the salient features of local practices and knowledge are not properly identified, and their actual and potential contributions are not well recognized. What is evident is that these practices are getting lost irreversibly with new religious teachings, urbanization and globalization playing a crucial role of eroding. The national policy direction Ethiopia has been pursuing vis-à-vis promoting diversity through recognition of cultural identity appears not to have been used properly for curbing the outstanding problem. As there exists an encouraging environment to work with traditional communities in the country, it remains the role of concerned academic institutions, researchers and other stakeholders to engage in extensive studies so as to bring the peculiar features and useful practices of such societies to the attention of policy makers and the public at large.

ACKNOWLEDGEMENTS We are thankful to the Basket and the Kafecho peoples in general and those farmers who participated in the interview and discussion sessions. Our special gratitude goes to government officials and experts in various offices of Basketo Special Woreda and Kafa Zone. The support extended by Arba Minch University during the study is also well acknowledged.

REFERENCES

Abrams, N.E. & J.R. Primack 2001. Cosmology and 21st-century culture. *Science*, 293: 1769–1770

Adimihardja, K. 1999. Cosmology and biodiversity of the Kasepuhan community in the Mount Halimun area of West Java, Indonesia. In (D.R. Posey, ed.) *Cultural and Spiritual Values*

- of Biodiversity: A Complementary Contribution to the Global Biodiversity Assessment, pp. 223–227. Intermediate Technology Publications, London.
- Alcorn, J. 1993. Indigenous peoples and conservation. Conservation Biology, 7(2): 424–426.
 ——1999. Indigenous resource management systems (IRMS). In (D. Posey, ed.) Cultural and Spiritual Values of Biodiversity: A Complementary Contribution to the Global Biodiversity Assessment, pp. 203–206. Intermediate Technology Publications, London.
- Alvard, M. 1993. Testing the "ecologically noble savage" hypothesis: Interspecific prey choice by Piro hunters of Amazonian Peru. *Human Ecology*, 21(4): 355–387.
- Arhem, K. 1996. Human-nature relatedness in the Northwest Amazon. In (P. Descola & G. Palsson, eds.) Nature and Society: Anthropological Perspectives, pp. 185–204. Routledge, London.
- Balick, M. & P. Cox 1996. *Plants, People and Culture: The Science of Ethnobotany*. Scientific American Library, New York.
- Bekele Woldemariam 2004. *Ye-Kafa Hizbochina Mengistat Ac'ir Tarik* (in Amharic). Mega Printing Press, Addis Ababa.
- Beltran, J. 2000. Indigenous and Traditional Peoples and Protected Areas: Principles, Guidelines and Case Studies. Best Practice Protected Area Guidelines Series No. 4. IUCN. Online. http://data.iucn.org/dbtw-wpd/edocs/PAG-004.pdf (Accessed September 14, 2010).
- Bennet, D. 1999. Stepping from the diagram: Australian aboriginal cultural and spiritual values relating to biodiversity. In (D.R. Posey, ed.) *Cultural and Spiritual Values of Biodiversity:* A Complementary Contribution to the Global Biodiversity Assessment, pp. 102–105. Intermediate Technology Publications, London.
- Berkes, F. 1999. Sacred Ecology: Traditional Ecological Knowledge and Resource Management. Taylor & Francis, Philadelphia.
- Berkes, F., J. Colding & C. Folke 2000. Rediscovery of traditional ecological knowledge as adaptive management. *Ecological Applications*, 10(5): 1251–1262.
- Bernard, H. 2002. Research Methods in Anthropology: Qualitative and Quantitative Methods, 3rd Edition. AltaMira Press, New York.
- Brockelman, P. 1997. The miracle of being: Cosmology and the experience of god. *Human Studies*, 20(2): 287–301.
- Central Statistical Agency (CSA) 2013. Population Projections for Ethiopia 2007–2037. Central Statistical Agency, Federal Democratic Republic of Ethiopia, Addis Ababa. Online. http://www.csa.gov.et/census-report/population-projections/category/368-population-projection-2007-2037 (Accessed November 15, 2014).
- Christie, J. & P. Mooney 1999. Rural societies and the logic of generosity. In (D.R. Posey, ed.) Cultural and Spiritual Values of Biodiversity: A Complementary Contribution to the Global Biodiversity Assessment, pp. 320–321. Intermediate Technology Publications, London.
- Cocks, M. 2006. Biocultural diversity: Moving beyond the realm of 'indigenous' and 'local' people. *Human Ecology*, 34(2): 185–200.
- Colding, J. & C. Folke 2001. Social taboos: "Invisible" systems of local resource management and biological conservation. *Ecological Applications*, 11(2): 584–600.
- Cunningham, A. 2001. Applied Ethnobotany: People, Wild Plant Use and Conservation. Earthscan Publications, London.
- Curry, J. 2000. Community worldview and rural systems: A study of five communities in Iowa. *Annals of the Association of American Geographers*, 90(4): 693–712.
- Data, D. 2000. Clans, kingdoms, and "cultural diversity" in southern Ethiopia: The case of Omotic speakers. *Northeast African Studies*, 7(7): 163–188.
- Degh, L. 1994. The approach to worldview in folk narrative study. Western Folklore, 53(3):

- 243-252.
- Descola, P. 1996. Constructing natures: symbolic ecology and social practice. In (P. Descola & G. Palsson, eds.) *Nature and Society: Anthropological Perspectives*, pp. 82–102. Routledge, London.
- Ellen, R. 1996. The cognitive geometry of nature: A contextual approach. In (P. Descola & G. Palsson, eds.) *Nature and Society: Anthropological Perspectives*, pp. 103–124. Routledge, London.
- Friis, I., Sebsebe Demissew & P. van Breugel 2010. Atlas of the Potential Vegetation of Ethiopia. Det Kongelige Danske Videnskabernes Selskab, Copenhagen.
- Gonzales, T., N. Chambi & M. Machaca 1999. Agriculture and consmovision in the contemporary Andes: The nurturing of the seed. In (D.R. Posey, ed.) *Cultural and Spiritual Values of Biodiversity: A Complementary Contribution to the Global Biodiversity Assessment*, pp. 211–217. Intermediate Technology Publications, London.
- Hames, R. 2007. The ecologically noble savage debate. *Annual Review of Anthropology*, 36: 177–190.
- Howard, M. 1989. *Contemporary Cultural Anthropology 3rd Edition*. Scott, Foresman and Company, Illinois.
- Hviding, E. 1996. Nature, culture, magic, science: On meta-languages for comparison in cultural ecology. In (P. Descola & G. Palsson, eds.) *Nature and Society: Anthropological Perspectives*, pp. 165–184. Routledge, London.
- Klubnikin, K., C. Annett, M. Cherkasova, M. Shishin & I. Fotieva 2000. The sacred and the scientific: Traditional ecological knowledge in Siberian river conservation. *Ecological Applications*, 10(5): 1296–1306.
- Lertzman, A. & H. Vredenburg 2005. Indigenous peoples, resource extraction and sustainable development: An ethical approach. *Journal of Business Ethics*, 56: 239–254.
- MacDonald, K. 2004. Conservation as cultural and political practice. *Policy Matters*, 13: 6–17. Maffi, L. 2004. Cultures and conservation: Bridging the gap. *Policy Matters*, 13: 256–266.
- Mathez-Stiefel, S., S. Boillat & S. Rist 2007. Promoting the diversity of worldviews: Anontological approach to bio-cultural diversity. In (B. Haverkort & S. Rist, eds.) *Endogenous Development and Biocultural Development: The Interplay of Worldviews, Globalization and Locality*, pp. 67–81. Compas, Leusdn.
- McGregor, D. 1999. Hawaiian substance, culture and spirituality, and natural biodiversity. In (D.R. Posey, ed.) *Cultural and Spiritual Values of Biodiversity: A Complementary Contribution to the Global Biodiversity Assessment*, pp. 114–116. Intermediate Technology Publications, London.
- Ministry of Agriculture (MoA) 2000. *Agro-Ecological Zones of Ethiopia*. Natural Resource Management and Regulatory Department, Ministry of Agriculture, Addis Ababa.
- Olugbile, O., M. Zachariah, A. Kuyinu, A. Coker, O. Ojo & B. Isichei 2009. Yoruba world view and the nature of psychotic illness. *African Journal of Psychiatry*, 12: 149–156.
- Persic, A. & G. Martin 2008. *Links between Biological and Cultural Diversity—Concepts, Methods and Experiences*. Report presented at the International Workshop, September 26–28, 2007. UNESCO HQ, Paris.
- Plenderleith, K. 1999. The role of traditional farmers in creating and conserving agrobiodiversity. In (D.R. Posey, ed.) *Cultural and Spiritual Values of Biodiversity: A Complementary Contribution to the Global Biodiversity Assessment*, pp. 287–291. Intermediate Technology Publications, London.
- Posey, D. 1998. The "Balance Sheet" and the "Sacred Balance": Valuing the Knowledge of Indigenous and Traditional Peoples. Online. http://www.ubcic.bc.ca/files/PDF/Posey_Balance.pdf (Accessed September 14, 2010).

- Spiritual Values of Biodiversity: A Complementary Contribution to the Global Biodiversity Assessment, pp. 1–18. Intermediate Technology Publications, London.
- Reichel-Dolmatoff, G. 1976. Cosmology as ecological analysis: A view from the rain forest. *Man, New Series*, 11(3): 307–318.
- Sebsebe Demissew & I. Friis 2009. Natural vegetation of the flora area. In (I. Hedberg, I. Friis, & E. Persson, eds.) *Floral of Ethiopia and Eritrea (Vol. 8)*, pp. 33–38. The National Herbarium, Addis Ababa University, Addis Ababa.
- Slikkerveer, L. 1999. Ethnosciences, 'TEK' and its application to conservation: Introduction. In (D.R. Posey, ed.) *Cultural and Spiritual Values of Biodiversity: A Complementary Contribution to the Global Biodiversity Assessment*, pp. 169–177. Intermediate Technology Publications, London.
- Smith, E. & M. Wishnie 2000. Conservation and subsistence in small-scale societies. *Annual Review of Anthropology*, 29: 493–524.
- Van der Beken, C. 2012. Unity in Diversity-Federalism as a Mechanism to Accommodate Ethnic Diversity: The Case of Ethiopia. LIT Verlag, Zurich.
- Winthrop, R. 1999. Resource stewardship by middle Columbia tribes of the American Pacific Northwest. In (D.R. Posey, ed.) *Cultural and Spiritual Values of Biodiversity: A Complementary Contribution to the Global Biodiversity Assessment*, pp. 79–82. Intermediate Technology Publications, London.
- Yonatan Tesfaye 2010. Ethnic Diversity and Federalism: Constitution Making in South Africa and Ethiopia. Ashgate Publishing, Farnham.

———— Accepted January 4, 2020

Author's Names and Addresses:

Feleke Woldeyes, Ethiopian Biodiversity Institute, P.O.Box 30726, Ethiopian Biodiversity Institute, ETHIOPIA.

E-mail: felewoldegamo [at] gmail.com

Masayoshi SHIGETA, The Center for African Area Studies, Kyoto University, 46 Yoshida-Shimoadachi-cho, Sakyo-ku, Kyoto 606-8501, JAPAN.

E-mail: shigeta.masayoshi.2z [at] kyoto-u.ac.jp