Indigenous Religions, Identity and Biodiversity in Southwest Ethiopia

Lessons from Council of Nationalities-SNNPRS[1] commissioned studies

Zerihun Doda

Introduction

Existing studies of the peoples of Ethiopia have often been criticized as suffering from methodological and theoretical biases (Mekonen 1990). Historiographical accounts have lacked representations of the full range and diversity of the Ethiopian peoples and cultures (Pankhurst 1990; Bahru 2001), and ethnographic documentations of Southwest Ethiopia have focused on broad surveys of the socio-cultural institutions with few attempts made to synthesize national, interethnic commonalties (Abbink 2000). Studies of the autochthonous religions of Southwest Ethiopia have often been dominated by accounts from diffusionist, evolutionary, and structural functionalist perspectives (Abbink 1998; Freeman 1999). There exists a dearth of studies documenting such religions and their linkages with local biodiversity. Some studies (for example, Stauder 1971) have attempted ecological anthropological analysis of certain ethnic groups in Southern Ethiopia. Although most recent studies (for example, Samuel and Hewlett 2016; Quinlan et al. 2015) have started documenting socio-ecological and ethnobiological systems in the region, studies documenting the interface of native religions and local biodiversity are still lacking.

Empirical studies exploring the mutual interdependence between ecology, biodiversity and traditional religions and their resulting positive effects on society and environment in Ethiopia are scarce. Their coupled existence and endangerment are also little understood. Some emerging studies have generally focused on the role religious places and institutions play in the conservation of biodiversity, such as endangered fauna and flora (Desalegn 2009; Massey et al. 2014). Others have attempted to examine the relevance of traditional religions and sacred sites from the perspectives of anthropology, politics and jurisprudence (Hamer 2002; Markos et al. 2012; Dillu 2009; Kifle 2014). Studies such as these do not, however, address the socio-ecological and biocultural relevance and values that bind local biodiversity and native religions. In the following, I attempt to report on the coupled existence and endangerment of native religions and local biodiversity from a broadly biocultural diversity perspective, drawing on lessons from studies conducted from 2008–2010 in four Southwest Ethiopian communities, commissioned by the Council of Nationalities (CoNs) and the Christensen Fund (TCF). Data from fieldwork conducted during three trips – in Wonsho Sidama from January to March 2008, in Basketo and Me'enit from June to October 2008, and in Ṭambaro and Sidama from July to September 2009 – is used to provide insights into native-religion-mediated identities, ecology biodiversity and endangerment.

1 Southern Nations, Nationalities and Peoples' Regional State

Methodology

This paper is a collation and synthesis of thematic issues drawn from a set of previous studies on four ethnic groups in Southwest Ethiopia: Sidama, Ṭambaro, Basketo and Me'enit. The paper draws lessons mainly from the studies commissioned by the CoNs-SNNPRS and TCF, in which I participated as a lead researcher. As the main research goal was to document and describe cultural and ethnohistorical phenomena, the study designs varied, and included: collaborative ethnography, documentary analysis; visual documentation; market surveys of ethnohistorical, natural and cultural heritages; and fieldwork involving observations, key informant interviews, group discussions and genealogical studies. There were, in addition, periodic consultative meetings involving feedback and member checks to monitor data and fieldwork quality. Data relevant to the present study thus draws on the wide variety of material that resulted from the project.

Review of Anthropological Works on Southwest Ethiopia

As Abbink (2000) has noted, much of work done in the past on Southwest Ethiopia focused on analysis of the ethnographic present and ethnographic studies of individual ethnic groups, and there are few general analyses of Ethiopian cultures or ethnographic comparisons. The same is true in the area of nature and culture linkages. Anthropological accounts of the native religions of Southwest Ethiopia have often been dominated by accounts from diffusionist and functionalist perspectives (Freeman 1999; Abbink 1998). Explanations of religion and ecology in Southern Ethiopia have pursued a number of approaches. One is the approach that sees religion as a tool that helps local cultures adapt to their particular environments. According to Abbink (2000), ecological conditions are important elements – along with other historical and socio-economic processes – in the formation and transformation of religious identities in Southern Ethiopia.

A related explanation, particularly in regard to the similarities in religions across ethnic groups, also invokes ecological factors. Some authors (for example, Wood 2000) seem to argue that the similarities in religious institutions across different ethnic groups in Southern Ethiopia may be attributed to accidental factors arising from the different peoples inhabiting similar ecological conditions. Ecology is here considered as an explanatory factor, an independent variable that influences the type and nature of religious belief and practice.

Another explanation of the relationship between religion and ecology argues that linkages between ecology and religion in a community may be the result of exchange through inter-ethnic relationships and population movements. So, for example, Freeman (1999) argues that the Gamo highlanders' indigenous forms of religious beliefs and initiation rites may have been adapted from the neighbouring pastoral Oromo and other Cushitic groups: they are the product of population movements and, having once been introduced, they were adapted to their specific ecological conditions.

In summary, approaches employed to study culture, ecology and society in Ethiopia may be classified into four streams: ecological anthropological approaches, which deal with culture, religion and ecology from functional, diffusionist and evolutionary angles; indigenous knowledge and biodiversity conservation approaches, which emphasize the role of indigenous knowledge and religions in natural resource management and conservation of

biodiversity; environmental history approaches, which focus on the history of ecological degradation; and emerging socio-ecological approaches, which attempt to trace interactions between ecological and social systems, their mutual sustainability and resilience.

A Better Framework for Understanding Religion, Ecology and Biodiversity?

Biocultural diversity is a concept that signals a connection between biological and cultural diversity (Redford and Brosius 2006). It is "the sum total of the world's differences, no matter what their origin. It includes biological diversity at all its levels, from genes to populations to species to ecosystems; cultural diversity in all its manifestations, ranging from individual ideas to entire cultures; and, importantly, the interactions among all of these" (Harmon and Loh 2005: 231). This approach helps us to see ecological processes not in isolation but in relation to social and cultural processes; it combines both social and ecological systems (Berkes 1999; Berkes et al. 2000). In this context, native religions and local biodiversity, represented – for example – by sacred groves and trees, are resilient social-ecological systems. These systems possess aspects of spatio-temporal constancy and boundedness. However, they are ecologically and socially dynamic and complex, with changing meanings and compositions (Sheridan 2008).

Maffi and Woodley (2010) and Sponsel (2013) provide a useful conceptual framework for this integrative interface between biodiversity and cultural diversity that stresses the inextricable link between the two. The geographical convergence of biological and cultural diversity has, in particular, gained attention. Sponsel calls this the 'diversity principle', while Maffi and Woodley call it the 'true web of life'. The densities of ethnic groups and languages spoken in a given area have been shown to correlate with biocultural diversity richness (Pilgrim et al. 2009) and these are now considered as among key proxy indicators for such diversity.

In summary, the bio-cultural diversity perspective provides a useful framework with which to analyse the interaction, mutual co-adaptation and endangerment of local religions and biodiversity in the context of Southern Ethiopia. The factors that drive the emergence and development of both systems also work towards their coupled endangerment: loss in one means loss in the other.

Key Themes from the Cons and TCF-Commissioned Studies

Religion as identity mediator

Religion is an important identity mediator. With the current fostering of ethnicity in Ethiopia, traditional practices – not the least of which are native religions – are being encouraged, as they are seen as markers of ethnic identity (Freeman 1999). Our findings have shown that local people have started reclaiming their native religious identities. Some aspects of native religions were crucial components of the identities of peoples.

In our studies, people were using their ancestral religions as elements in defining themselves. There was, however, a tendency to lead a double life of allegiance to both ancestral and mainstream religions. Practitioners of ancestral religions were not often vocal about their religious identities, although we met some who were. People were often creative and instrumentalist in their ways of using religion as an identity marker (Mohammed 2012).

In general, as Abbink (2011) notes, religious identities are becoming more dominant as people's primary public identity in Ethiopia.

Religion, ecology, biodiversity and identity

The interactions among religion, ecology and biodiversity are complex, and many dimensions are involved. Among the current diverse perspectives investigating the interface between culture and biodiversity, religion stands out as an important component. Similarly, the biocultural diversity perspective takes religion as an important element in the analysis and understanding of sustainability and the resilience of socio-ecological systems.

More broadly, the interaction between religion and ecology can be further understood in today's current context, in which there is a growing sense of the role world religions play in environmental protection. Religion-motivated, ecologically responsible values, lifestyles and diverse forms of environmentalism are important concerns in the discussion about religion and ecology. With respect to the interaction between religion and biodiversity, important dimensions of the discussion include: the role of religions in promoting environmental and ecological sustainability; and biodiversity conservation and the mutual relationship between various religions and biodiversity. In the current debates about biocultural diversity and endangerment of cultures and biodiversity, religion is a key element: fundamental beliefs and practices attached to a sense of reverence form the basis for morality in behaviour and thinking about ecology and biodiversity. The world's rich biocultural diversity hotspots are more likely to be associated with the presence and practice of deep, pro-ecology and biodiversity friendly moralities and beliefs (Bhagwat et al. 2011).

While the current biocultural diversity literature generally regards the various world religions as having varying degrees of ecological sensitivity and friendliness toward biodiversity, and suggests that – in a sense – all religions in some form shape group identities in relation to ecology (Verschuuren et al. 2010), traditional religions are frequently seen as more ecologically sensitive, that is, much more dependent on, and supportive of, ecologies. In much of the developing world, native religions, local ecologies and biodiversity are intertwined and they form important dimensions in group identities (Sponsel 2012). Ecologically based and biodiversity-dependent religious rituals serve local communities as the locus of maintenance, continuity and expressions of identity (Posey 1999; Sponsel 2016).

Biodiversity and Native Religions in South-Western Ethiopia

Diversities of religion in Southwest Ethiopia

In the studied communities, three categories of religious identities can be broadly recognized: Christianity, Islam and ancestral religions (CSA 2013). Forms of syncretized religious tradition, arising from centuries of transactions between autochthonous and introduced religions, also surface in the religious landscape in Southwest Ethiopia (Braukämper 1992). While these divergent forms may be considered to share some fundamental commonalities, the different religions possess certain unique features. The question of why there is such remarkable diversity, as Abbink (2000) notes, deserves serious comparative ethnological investigation. Consideration of broader historical, socio-

economic and ecological conditions is, among other things, important in understanding the nature and peculiarities of religions and their diversities in Southern Ethiopia.

Ecological conditions are key factors both in the historical processes that have contributed to the development of specific religious forms and in the way that the same processes have enabled native religions to adapt to changing ecological and socio-economic conditions. In understanding the group identities of Southwest Ethiopia, it is important to consider the role of nature and ecologies.

In our research, certain religious forms were more likely to be practised among different groups. The active interethnic relations that have been ongoing for millennia may be an important historical and socio-economic condition in this process of religious exchange. While religions have, for centuries, been exchanged among peoples, the diverse native regions have also been characterized by shared values in Southern Ethiopian (Abbink 2000). While distinct religions were historically and contemporarily practised among the studied communities, there are discernible similarities among native religions. A first major shared feature is that these religions are nature-based, in that both their belief dimension and practice realm involve the natural world. They are embedded in concrete local ecologies. Biodiversity species become active components: they can be talked to; their natural sights, sounds and other behaviours may be deciphered and consulted for symbolic meanings and messages.

Secondly, belief in the existence of a Supreme Being (Śossa in Basketo, Magano in Sidama, Gambala Magano in Ṭambaro and Yeeri-Tumma in Me'enit) who has created everything and in the role of ancestors as mediators is important. This is evidenced throughout Africa, although the concept and identity of the Supreme Being is fairly nebulous. Instead, prayers are addressed to the ancestors who are considered intercessors: the Supreme Being is addressed through the ancestral spirits because most Africans believe that it cannot be addressed directly (Bae 2007).

Thirdly, belief in the power of spirits is important. People believe in both benevolent and malevolent spirit entities: thus, fear, reverence and respect characterize the way believers think, act and do with respect to topographic, ecological and biodiversity dimensions (Cunningham 2001).

A fourth important feature is the fact that certain elements of the biodiversity are important in the manifestation and concretization of religious beliefs and practices. *Podocarpus falcatus,* for example, is an important tree species among Basketo and Sidama; while *macrostacheus croton* and *cordia africana* are important in Ṭambaro and Me'enit. Further, as Freeman (1999) notes, key aspects of ancestral religions such as the concept of divine kings, rain making, initiation and sacrificial rites, and use of ecological resources for religious enactments are also shared elements. This is a result of manifest historical and cultural continuities and exchanges among the various peoples of Southern Ethiopia. It is also evidence of a fundamental connection between culture and nature that manifests itself in fundamentally similar ways in different ecological settings.

Finally, native religions share an important sociological feature – communality. Collective participation in worship events, ritual performances and related ceremonies are important. The preponderance of males as active agents and officiators in these religions, and the manner of socialization and communication of religious symbols, teachings

and codes in horizontal and vertical transmission are also important. Knowledge, skills and attitudes are acquired through *in situ* training, learning by doing and experiential engagements.

Religion-Mediated Identity and Biocultural Diversity in Southwest Ethiopia

The Southwest Ethiopian communities are important sites of relative abundance of nature-based religions. This has resulted in resilient biocultural diversity mediated by native religions, although mainstream religions – such as Ethiopian Orthodox Christianity – have also been shown to be centres of biocultural diversity (Massey et al. 2014). In Basketo, the śossa is a resilient socio-ecological system where there was a co-adaptation between native religion and the cultural keystone tree species – *zigga* (*podocarpus falcatus*), *marra* (*prunus africana*), *wolla* (*ficus vasta*) and *ooch* (*syzygium guineense*), among others. The Sidama sacred forests have served as refuges for over twenty-seven locally and nationally endangered native tree species and scores of fauna, while contributing towards the preservation of local cultural, linguistic and religious diversity and serving as a holistic centre for justice, well-being and peace (Zerihun 2015). Ṭambaro traditional religion incorporates the ritual of planting *masincho* (*macrostacheyus croton*) as a symbol of respect and commemoration for paternal ancestors.

As material expressions and representations of religious beliefs, sacred forests and keystone trees are crucial in helping locals to enact and reinforce their religious identities. In a rapidly changing world and in a regional context in which various religions compete for pre-eminence, mainstream religions often supplant ancestral religions (Hamer 2002; Freeman 1999, 2013). The presence of sacred forests and trees imbued with socio-cultural value provides a way for local communities to show the vitality of their ancestral religious identity (Maffi and Woodley 2010).

Sacred forests and individual woody trees are 'mirror images' of the local community: their identity embodies their past, present and future (Fincke and Oviedo 2008; Nazarea 1998; Rival 1998). Sacred trees are likened to ancestors, embodying the custodian community's sense of identity and concretizing their spatial-temporal existence. Through them, the community meets its deepest theological quests, reaffirms its identity, reinforces its values, commemorates its ancestors, and placates its deities (Dafni 2007; Toledo 2013). The identity-conferring role of native religions working through the mediation of ecology and biodiversity has now been officially recognized in the Millennium Ecosystem Assessment as an example of a cultural ecosystem service (De Groot et al. 2005).

Endangerment and Loss of Native Religions

A major observation from our studies in all communities was the precarious state of native religions. Much worse, many religions were already dead. It is generally agreed that ethnocide – the death of cultures – has occurred across the world. Language endangerment has also been fairly well documented and, in the following, I explore how existing models of language endangerment may be adapted to the case of religion. But first, below is a review of local explanations of endangerment.

Local peoples' explanatory models may capture the realities of the endangerment and loss of their religions in tangible ways. The idea of a generational gap in the practise of native religions provides one model, and is expressed by comments from interlocutors such as: 'the present generation no longer respects ancestral traditions', 'this generation knows nothing about ancestral values' and 'young people go and cut sacred trees because they no more are afraid of retributions of ancestors'. Other comments relating to generational gap reveal a perception that the practice of native religions is an old person's profession. There is talk about the number of practitioners and the fact that very few people now adhere to the native religions, indicated in comments such as: 'you can count them in your fingers', 'there are very few households who practise it'. The marginalization status model explains endangerment in relation to spatial location. People would often talk about how native religions are now relegated to obscure corners in inaccessible, remote areas. Among the Me'enit, for example, the practising of native religions was reported as being limited to peripheral areas.

The clandestine ways in which some native religions are conducted provides another explanatory model. Thus, local people often talked about individuals 'conducting the religion in hiding', 'in the dark secret places', or in the 'late night hours'. The very low social status accorded to some native religions may, thus, indicate their endangerment. Among the Ṭambaro, for example, practising Fandano[2] was considered as a *shufuro* – a contemptible thing that some deviant people practice in hiding.

Finally, there is also an explanatory model relating to time. People would often talk about native religions being practised in the past, indicating that they were no longer active – a fact that could be confirmed by observations of sacred groves that are now the sites of markets, schools or government offices. They would often talk about the time when localities were teeming with sacred groves and spirit possession cults. In some cases, local models also relate the virtual death of the religion, when they make explicit mention of the confirmatory statement: 'Now, this is no more practised in this community'.

Adapting Models of Language Endangerment

Literature on biocultural diversity has a good starting point in the models developed by UNESCO (2003) and Ethnologue (Simons and Lewis 2013), which use factors such as the number and age of active speakers, the documented status of the language, and whether it is used in official contexts or limited to home use, among others, to measure the endangerment status of a language.

The metaphor of the death of languages is well known in explanations of the endangerment and loss of native languages across the world. What Dessalegn (2013) notes about the endangerment status and 'death' of certain native languages in Southwest Ethiopia may well be applicable to many native religions in Ethiopia. Whether it is a language or a religion that is exposed to the process of dying, the wealth of inherited knowledge disappears with the passing away of the last active practitioner.

2 An ancient syncretic religion forged out of the admixture of native beliefs and Islamic faith that used to be common among the Hadya, Marakqo, Tambaro, Kmabata and other neighbouring ethnic groups but is now moribund.

What makes the case of religious endangerment unique when compared to that of language is the fact that religious ideologies and practices tend to be, in the context of native cultures, more dependent on the ecological and biodiversity components of the locality in which they occur. The death of a religion not only exposes the associated ecological, socio-economic and cultural factors to danger, it also entails the death of certain dimensions of local language that are unique to the religion.

One of the commonly employed models for measuring language endangerment uses five points on a scale that focuses on the chances of intergenerational transmission and the extent and profile of current users of the language: potentially endangered, endangered, seriously endangered, terminally endangered and dead (Wurm 2001). A language is potentially endangered if the users are children and they prefer speaking the dominant language; it is terminally endangered or moribund if the only speakers are a few old, dying people; and it is practically dead when the last speaker dies. This scale of measurement may be adapted to religions. Many religions have died in Southwest Ethiopia with the death of the last effective practitioners, or with shifts to other religions. In the studies we have undertaken, many native religions may be said to be already dead; and the few in existence were practised by very old people. Terminally endangered or moribund would be a good way to describe those religions that do exist. However, it should be noted that there may be intra-regional and intra-community variations in the endangerment level of these religions.

Endangerment and Loss of Native Religions: Main Drivers

In all the studied communities, the main drivers of endangerment among native religions were government policies, modernization, urbanization, demographic pressure leading to outmigration and the limiting of access to biodiversity and ecological resources that were previously reserved for religious purposes, and – most importantly – conversion to modern religions, especially Protestant Christianity (Freeman 2013; Awoke 2016; Zerihun 2015). Traditional religion has suffered big losses since the 1950s, coinciding with the introduction and expansion of modern religions, which encourage native converts to distance themselves from ancestral rituals (Hamer 1970, 2002; Awoke 2016).

The endangerment of local religions in Southwest Ethiopia was often evidenced by the associated decline and endangerment of local biodiversity. Observations and testimonies from our studied communities attest to this condition. Existing places of biocultural diversity in Sidama, Ṭambaro, Me'enit and Basketo were invariably associated with the remnants of resilient native religions. The degraded states of existing sacred groves, continuing socio-economic, demographic, modernizing and religious transformation and development policy continue to endanger native religions and the local biodiversity they depend on.

Globally, evidence is mounting of an increasing loss of the rich diversity in nature and culture (Smith and Maffi 2001; Sponsel 2013). Among the notable dimensions of this loss is in linguistic diversity (Mishler and Maffi 2001; Zent and Maffi 2001; Loh and Harmon 2014), which Mühlhäusler (2001) refers to as 'eco-linguistic diversity losses'. Ethnobotanical and forest-related knowledge loss is another key aspect (Ford 2001; Shiva 1998; Snape 1996). Traditional religions in African and other small-scale societies are increasingly threatened with extinction and replacement by modern value

systems (Gellar 2007). The loss of indigenous crops, trees and endemic animal species in many parts of the world is linked to the loss of religions and traditional knowledge systems related to these species.

Syncretism and the Future of Native Religions

The term 'syncretism' denotes the coalescence of cultural traits in its broadest sense, but is often employed with reference to religion (Braukämper 1992). Syncretism in religion is an important phenomenon in Ethiopia. As a religiously diverse country, with two major world religions present from its beginning, there has been the opportunity for syncretism driven by multiple factors in Ethiopia. Among the communities studied, aspects of native religions and identities existed in syncretic ways, although native religions were often shrouded under the cloak of mainstream religions (Mohammed 2012).

While the linked endangerment of religions and biodiversity was evident in Southwest Ethiopia, the socio-ecological system of native religions and local biodiversity was, nonetheless, resilient. A strategy of adopting an accommodative approach to other religions seems to have been employed and a number of native religions have acquired a pidgin nature in which dominant elements from mainstream and ancestral religions have combined to form a new entity (Braukämper 1992).

In spite of the fact that most native religions are seriously endangered, recent attempts at reviving them seem to be helping secure the continuance of at least some of these religions, including the Sidama ancestral religion, the Śossa in Basketo and the *Gambala Magano* religion in Ṭambaro. Syncretism may, thus, be an important factor in the continuity of at least certain elements of traditional religions in the Region.

Significance, Implications and Future Directions

These studies may be considered as preliminary attempts at a biocultural perspective on religion, ecology and biodiversity in Southwest Ethiopia. The studies contribute to mapping endangered and lost native religions in the region from a systematic perspective. Further, the attempt to document the endangerment of native religions has revealed a link with similar endangerment to local biodiversity, and the demonstration that existing biocultural hotspots in the region are largely mediated by the maintenance of traditional religions is an important contribution to the current debates on culture, environment, conservation and development. The studies have documented religion-mediated biocultural diversity hotspots, bringing these to the attention of concerned stakeholders, including policy makers, local communities and researchers.

Summary and Conclusion

The CoNs and TCF in partnership with regional universities have been engaged in this process of documentation since the late 2000s. CoNs is currently continuing these studies with a focus on documenting shared values among the various ethnic groups in the region. In the last ten years, dozens of research outputs have been produced. But a synthesis of these works and the core lessons they contain is currently lacking, and is essential in order to reflect on the relevance, contributions and limitations of these studies. The present paper was conceived with this in mind and driven by a keen interest in

the themes of native religion, ecology and biodiversity and their linked endangerment, with the aim of evaluating how a subset of the CoNs and TCF commissioned studies addressed these themes.

The paper has shown the CoN and TCF commissioned studies have contributed towards a preliminary mapping of native religions, their role as identity markers, their mediation in ecological sustainability and biocultural diversity, and their endangerment owing to a range of drivers.

From the foregoing discussion, it can be concluded that:

- Diverse, yet fundamentally related, native religions sharing some salient features have existed, and continue to exist, in Southwest Ethiopia.
- The native religions of Southern Ethiopia are fundamentally nature-based and underpinned by ecological sensitivity and support for biodiversity, but they are also dependent on biodiversity for their resilience.
- Native religions have been and are important mediators of group identity in Southern Ethiopia, and the uniqueness of such identities lies in their basic attachment to ecology and biodiversity.
- While native religions in Southern Ethiopia have been dynamic and resilient, a range of factors have driven these to a precarious state of existence, endangering both the religions and the biodiversity they support and depend on.
- Thus, while many native religions are either moribund or already dead, some continue to exist and an important variable in their future existence appears to be creative syncretism, which – while it potentially introduces basic changes to the original constitution of the autochthonous religion – may positively contribute to its continuity.

Implications and Future Directions

To further our current understanding of sustainable societies, cultures and ecologies, it is imperative that we should be concerned with those native religions that have been shown to have positive ecological values, while acknowledging that native religions do not necessarily contribute towards positive socio-ecological systems (Cunningham 2001). Documenting and protecting native religions in Southwest Ethiopia is a matter of preserving useful cultural diversity and of protecting basic human rights enshrined in the country's constitution and in related international conventions. It is further justified by the pragmatic utility of native religions as instruments of socio-cultural wellbeing, jurisprudence, peace-making and conflict resolution; and by the conservational values of such religions, in as much as they promote biodiversity.

At the global scale, arguments for preserving native religions as core elements in biocultural diversity rest on a set of values that includes the link between the biological and cultural diversity and the positive role of traditional religions in conservation (Pilgrim and Pretty 2010; Loh and Harmon 2014; International Society of Ethnobiology n.d.). Addressing the loss of both through a holistic approach is global society's urgent assignment and its 'ethno-ecological' (Zent et al. 1999) and 'moral-ethical' (Harmon 2001) imperative. As a matter of basic human rights, cultural survival and compensation for past

colonial crimes (Posey and Dutfield 1996), we must strive to understand and secure the richness of ethno-ecological knowledge in areas of rich biodiversity (Maffi 2001; Harmon 2001); the conservation knowledge in endangered languages and religions (Maffi 2001); the role of religion in ecology and the convergence of biocultural diversity hotspots in native religious areas (Bhagwat et al. 2011); and the practical development and livelihood benefits of preserving these heritages.

The implications and future directions arising from the foregoing discussions and conclusion include the following:

- Further mixed methods research needs to be undertaken to systematically document and map the linked endangerment of religions and biodiversity in Southwest Ethiopia and beyond.
- Systematic measurement tools for determining the endangerment scales of the religions of the region and the country at large need to be produced.
- Religion-mediated bioculturally diverse hotspots in the region and the country at large need to be comprehensively surveyed and documented.
- The role of native religions in the formation, expression and maintenance of group identities and how these depend on local ecologies and biodiversity need further and large-scale systematic study.
- Biocultural hotspots need further systematic documentation using visual anthropological methodologies.
- Actionable projects aimed at revitalizing biodiversity-friendly, moribund and highly endangered religions and working towards mitigating existing drivers of endangerment need to be developed.

Acknowledgements

I want to thank Hawassa University, Ethiopia and the Frankfurt Frobenius Institute, Germany, for providing us with the chance to be part of the international conference that took place in February 2017 at Hawassa City, Ethiopia, and for facilitating publication of our papers in this journal. Further, I also want to thank the Council of Nationalities, SNNPRS and TCF for commissioning and funding the studies on peoples and cultures of Southwest Ethiopia, on which I was invited to take the role of a lead researcher.

References

Abbink, Jon

1998 'An historical-anthropological approach to Islam in Ethiopia: Issues of identity and politics'. *Journal of African Cultural Studies* 11(2): 109–124.

2000 'Comparing cultures in Ethiopia: From ethnography to generative explanations'. *Northern African Studies* 7(3): 1–14.

2011 'Religion in public spaces: Emerging Muslim-Christian polemics in Ethiopia'. *African Affairs* 110(439): 253–274.

Awoke Amzaye Assoma

2016 'Religious change among the Kore: Politics and Christianity in Southwestern Ethiopia'. *Sociology and Anthropology* 4(1): 29–36.

Bae, Chom Sup

2007 *Ancestor worship and the challenges it poses to the Christian mission and ministry.* PhD Dissertation, Faculty of Theology, University of Pretoria.

Bahru Zewde

2001 *A history of modern Ethiopia, 1855–1991* (Second Edition). Oxford: James Currey; Athens: Ohio University Press.

Berkes, Fikret

1999 *Sacred ecology: Traditional ecological knowledge and resource management*. Philadelphia: Taylor & Francis.

Berkes, Fikret, Johan Colding and Carl Folke

2000 'Rediscovery of traditional ecological knowledge as adaptive management'. *Ecological Applications* 10(5): 1251–1262.

Bhagwat, Shonil A., Nigel Dudley and Stuart R. Harrop

2011 'Religious following in biodiversity hotspots: Challenges and opportunities for conservation and development'. *Conservation Letters* 4(3): 234–240.

Braukämper, Ulrich

1992 'Aspects of religious syncretism in Southern Ethiopia'. *Journal of Religion in Africa* 22(3): 194.

Central Statistical Agency (CSA)

2013 *Population projection of Ethiopia for all regions at Wereda level from 2014–2017.* Federal Democratic Republic of Ethiopia.

Cunningham, Anthony

2001 *Applied ethnobotany: People, wild plant use and conservation*. London: Routledge.

Dafni, Amots

2007 'Rituals, ceremonies and customs related to sacred trees with a special reference to the Middle East'. *Journal of Ethnobiology and Ethnomedicine* 3: 28.

De Groot, Rudolf et al.

2005 'Cultural and amenity services', in: Rashid Hassan, Robert Scholes, Neville Ash (eds.), *Ecosystems and human well-being: Current state and trends. Findings of the condition and trends, volume 1,* 455–476. Washington, D.C.: Island Press.

Desalegn Desissa

2009 'Indigenous sacred sites and biocultural diversity: A case study from Southwestern Ethiopia'. http://www.terralingua.org/bcdconservation/?p=62, accessed 21 June, 2017.

Dessalegn Gebeyehu

2013 'On the verge of dying: Languages in Ethiopia', OGMIOS Newsletter 5, 3–6.

Dillu Shaleka

2009 'A study of a local religious institution among the Sidama of Southern Ethiopia'. http://www.humanosphere.cseas.kyoto-u.ac.jp/images/library/Image/report/2009_fs_dilu_e.pdf, accessed 15 June, 2017.

Fincke, Annelie and Gonzalo Oviedo

2008 'Bio-cultural diversity and indigenous peoples journey. Report from the 4th IUCN World Conservation Congress Forum, 6–9 October 2008, Barcelona, Spain'. https://cmsdata.iucn.org/downloads/bcd_ip_report_low_res.pdf, accessed 6 June 2018.

Ford, Richard

2001 'Introduction: Ethnobiology at the crossroads'. In: Richard I. Ford (ed.), *Ethnobotany at the millennium: Past promise and future prospects*. Ann Arbor: Museum of Anthropology, University of Michigan.

Freeman, Dena Gail

1999 *Transforming traditions: The dynamics of cultural variation in the Gamo Highlands, Southwest Ethiopia*. PhD thesis, London School of Economics, University of London.

2013 'Pentecostalism in a rural context: Dynamics of religion and development in Southwest Ethiopia'. *PentecoStudie*s 2(12): 231–249.

Gellar, Sheldon

2007 'Varieties of religious doctrines and institutions in Africa and their impact on democratization processes', paper presented at the *International Conference on Religious Ideas and Institutions and Transitions to Democracy in Africa, May 18-19, 2007*. http://dlc.dlib.indiana.edu/dlc/handle/10535/4171, last accessed 15 May 2017.

Hamer, John

1970 'Sidāma generational class cycles. A political gerontocracy', *Africa* 40: 50–70.

2002 'The religious conversion process among the Sidāma of North-East Africa', *Africa* 72(4): 598–627.

Harmon, David

2001 'On the meaning and moral of imperative of diversity', in: Luisa Maffi (ed.), *On biocultural diversity: Linking language, knowledge, and the environment*, 53–70. Washington: Smithsonian Institution Press.

Harmon, David and Jonathan Loh

2005 'A global index of biocultural diversity', *Ecological Indicators* 5(3): 231–241.

International Society of Ethnobiology

N.d. 'Declaration of Belem'. http://ethnobiology.net/global-coalition/declaration-of-belem/, accessed 15 June, 2017.

Kifle Wansamo

2014 'Introduction to Sidama religion'. http://www.afrikaworld.net/afrel/sidama.htm, accessed 22 May 2017.

Loh, Jonathan and David Harmon

2014 *Biocultural diversity*: *Threatened species, endangered languages*. WWF Netherlands.

Maffi, Luisa (ed.)

2001 *On biocultural diversity linking language, knowledge and the environment.* Washington D.C.: Smithsonian Institution Press.

Maffi, Luisa and Ellen Woodley

2010 *Biocultural diversity conservation*: *A global sourcebook*. London, Washington D.C.: Earthscan.

Markos Tekile et.al.

2012 *The history and culture of the Sidama nation.* Addis Ababa: Sidama Zone Culture, Tourism & Government Communication Affairs Department, Hawassa. (In Amharic).

Massey, Ashley, Shonil Bhagwat and Kathy Minnis

2014 'Religious Forest Sites'. http://www.biodiversity.ox.ac.uk/researchthemes/biodiversity-beyond-protected-areas/religious-forest-sites/, accessed 24 September 2014.

Mekonen Bishaw

1990 'Current status and future directions of socio-cultural studies in Ethiopia', in: Richard Pankhurst and Taddese Beyenne (eds.), *Proceedings of the symposium of Silver Jubilee Anniversary of the lES*, 105–119. Addis Ababa: Addis Ababa University Press.

Mishler, Brent and Luisa Maffi, Eds.

2001 'Biodiversity and the loss of lineages', in: Luisa Maffi (ed.), *On biocultural diversity linking language, knowledge and the environment*, 71–81. Washington and London: The Smithsonian Institution.

Mohammed Girma

2012 *Understanding religion and social change in Ethiopia*. New York: Palgrave Macmillan.

Mühlhäusler, Peter

2001 'Eco-linguistics, linguistic diversity, ecological diversity', in: Luisa Maffi (ed.), *On biocultural diversity linking language, knowledge and the environment,* 113–145. Washington and London: The Smithsonian Institution.

Nazarea, Virginia

1998 *Cultural memory and biodiversity*. Tucson: University of Arizona Press.

Pankhurst, Richard

1990 'Some notes in foreign historiography on Ethiopia', in: Richard Pankhurst and Taddese Beyenne (eds.), *Proceedings of the symposium of Silver Jubilee Anniversary of the lES*. Addis Ababa: Addis Ababa University Press.

Pilgrim, Sarah, Jules Pretty, Bill Adams et al.

2009 'The intersections of biological diversity and cultural diversity: Towards integration', *Conservation and Society* 7(2): 100–112.

Pilgrim, Sarah, and Jules Pretty

2010 *Nature and culture: Rebuilding lost connections*. London: Earthscan.

Posey, Darrell Addison

1999 'Introduction: Culture and nature – the inextricable link', in: Darrel Addison Posey (ed.), *Cultural and spiritual values of biodiversity*, 3–18. Nairobi: United Nations Environment Program.

Posey, Darrell Addison and Graham Dutfield

1996 *Beyond intellectual property: Toward traditional resource rights for indigenous peoples and local communities*. Ottawa: International Development Research Centre.

Quinlan, Robert J. et.al.

2015 'Vulnerability and resilience of Sidama enset and maize darms in Southwestern Ethiopia', *Journal of Ethnobiology* 35(2): 314–336.

Redford, Kent and Peter Brosius

2006 'Diversity and homogenization in the endgame', *Global Environmental Change* 16(4): 317–319.

Rival, Laura

1998 *The social life of tees: Anthropological perspectives on tree symbolism*. Oxford, New York: Berg.

Samuel Jilo Dira and Barry S. Hewlett

2016 'Learning to survive ecological risks among Sidama of Southwestern Ethiopia', *Journal of Ecological Anthropology* 18(1): 7.

Sheridan, Michael

2008 'The dynamics of African sacred groves: ecological, social and symbolic processes', in: Michael J. Sheridan and Celia Nyamweru (ed.), *African sacred groves: Ecological dynamics and social change*, 9–41. London: James Currey.

Shiva, Vandana

1998 *Biopiracy: The plunder of nature and knowledge*. London: The Gaya Foundation.

Simons, Gary and Paul Lewis

2013 The World's Languages in Crisis: A 20-Year Update. In Language Death, Endangerment, Documentation, and Revitalization. Wisconsin, Milwaukee. http://www-01.sil.org/~simonsg/preprint/Wisconsin%20Symposium.pdf, accessed February 7, 2017.

Smith, Eric and Luisa Maffi (eds.)

2001 'On the co-evolution of cultural, linguistic and biological diversity', in: Luisa Maffi (ed.), *On biocultural diversity linking language, knowledge and the environment*, 95–118. Washington and London: The Smithsonian Institution.

Snape, William

1996 *Biodiversity and the law*. Washington DC: Island Press.

Sponsel, Leslie E.

2012 *Spiritual ecology: A quiet revolution*. Santa Barbara: Praeger Publishers Inc.

2013 'Human impact on biodiversity, overview', in: Simon A. Levin (ed.), *Encyclopedia of biodiversity* (Second Edition), 137–152. Waltham: Academic Press.

2016 *Spiritual ecology, sacred places, and biodiversity conservation*. Routledge Handbooks Online. https://www.routledgehandbooks.com/doi/10.4324/9781315768946.ch11, accessed 18 June 2017.

Stauder, Jack

1971 *The Majangir: Ecology and society of a Southwest Ethiopian people.* Cambridge: Cambridge University Press.

Toledo, Víctor Manuel

2013 'Community conservation and ethnoecology: The three dimensions of local-level biodiversity maintenance', in: Luciana Porter-Bolland et.al. (eds.), *Community action for conservation*, 13–24. New York: Springer.

Unesco Ad Hoc Expert Group on Endangered Languages

2003 *Language vitality and endangerment*. UNESCO. http://www.unesco.org/culture/ich/doc/src/00120-EN.pdf, accessed 7 February 2017.

Verschuuren, Bas, Robert WILD, Jeffrey Mcneely and Gonzalo Oviedo (eds.)

2010 *Sacred natural sites: Conserving nature and culture*. London, Washington D.C: Routledge.

Wood, John

2000 'The similarities of difference: Symbolic reversals among East Africa's Gabra and their neighbors', *Northeast African Studies* 7(3): 59–84.

Wurm Stephen (ed.).

2001 *Atlas of the world's languages in danger of disappearing* (Second Edition). Paris: UNESCO Publishing/Pacific Linguistics.

Zent, Stanford, Ted L. Gragson, and Ben G. Blount

1999 'The quandary of conserving ethnoecological knowledge: A Piaroa example', in: Ted L. Gragson and Ben G. Blount (eds.), *Ethnoecology, Knowledge, Resources and Rights*, 90-124. Athens, Georgia: The University of Georgia Press.

Zent, Stanford and Luisa Maffi

2001 'Acculturation and ethnobiological knowledge loss among the Piaroa of Venezuela: Demonstration of a quantitative method for the empirical study of traditional ecological knowledge change', in: Luisa Maffi (ed.), *On biocultural diversity linking language, knowledge and the environment*, 190–212. Washington and London: The Smithsonian Institution.

Zerihun Doda Doffana

2015 "*Dagucho (podocarpus falcatus) is abbo*!" *Wonsho sacred sites, Sidama, Ethiopia: Origins, maintenance motives, consequences and conservation threats.* PhD Thesis, University of Kent. http://oatd.org/oatd/record?record=oai%5C%3Aethos.bl.uk%5C%3A646935, accessed 5 June 2017.