

Traditional Beliefs and Institutions for the Conservation of Biodiversity in Ethiopia: A Review from a Conservation Perspective

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Abstract: Traditional beliefs, social institutions, and cultural practices are performed in traditional communities of Ethiopia to harmonize interaction between the community and their natural environment. However, the positive effect of the communities on biodiversity was undermined and modernization erodes these traditional norms and their role in biodiversity conservation is not well known and documented. This review aims to evaluate the role of traditional beliefs and institutions in the conservation of biodiversity in Ethiopia. Traditional communities of Ethiopia believed that certain places and species are the ideal places to meet with their God and give special attention to them. Plant species like *Ficus sycomorus*, *Podocarpus falcatus*, *Olea capensis*, and *Ficus vasta* are regarded as a source of different spirits and have developed positive attitudes towards the plant species, and cutting them is immoral. *Gada* system, *Kobo* system, *Gudo* system, *Jang* system, *Maga*, *Songo*, and *Baallee* are traditional institutions that play a significant role in animal and plant species conservation in Oromo, Kaficho, Sheka, Majang, Gamo, and Gedeo community respectively. Taboos, oral declarations, social banishment, customary law, and punishment practiced by indigenous communities prohibit actions and activities that harm the welfare of biodiversity and their natural environment. Preservation of traditional beliefs and institutions is a form of biodiversity conservation, including registration as an intangible heritage of the community by the United Nations, Science, Education, and Culture Organization, because biodiversity and traditional community are intertwined (UNESCO).

Keywords: Biodiversity Conservation, Community, Ethiopia, Traditional Beliefs, Traditional Institutions

1. Introduction

The distribution of biodiversity in the world is not evenly and the distribution is high in the tropics [35]. However, there is a high rate of loss of biodiversity because of anthropogenic factors like deforestation, the introduction of exotic species, overexploitation, illegal hunting, illegal encroachment, pollution, and forest fire in tropical countries [22]. Conversely, traditional communities in the area have developed and maintained traditional beliefs and institutions for the conservation and management of biodiversity [8].

In the traditional communities of Africa, ethos, culture, and traditions have been the cornerstone for the conservation, protection, and management of biodiversity and the environment [44]. These traditional practices are may be

religious, social, and cultural environmental ethics that regulate their interactions with the environment [48]. The majority of traditional communities are environmentally friendly and sustainable, and they make significant contributions to natural resource conservation and sustainability. Traditional beliefs and traditions play a key role in the protection and enhancement of biodiversity in many rural areas [14].

Taboos and Totem are the most known traditional beliefs practiced in a tropical area, mainly in Africa [31]. Taboo is a prohibition rule that forbids members of the community from performing certain actions like utilization of some species and environmental resources in an unsustainable manner as well as entering or visiting a certain sacred site [6]. Similarly, a totem is the mystical or ritual representation of an object as an icon of a

clan. Hunting, killing, and utilizing animal or plant symbols are unethical and ignored in totem laws and regulations [11].

Like that of other African countries, Ethiopia is home to several traditional beliefs. Even at present, traditional practices are performed in the majority of tribes of Benishangul Gumuz, Gambella, Gamo, Gofa, Gurage, Hamar, Konso, Oromo, and Sidama. However, these traditional beliefs become eroded because of the expansion of modernization and their role in biodiversity conservation is not well known and documented [4]. In many pieces of works of literature, only the negative impact of traditional communities on biodiversity was mentioned. Thus, this review aims to evaluate the role of traditional beliefs and institutions in the conservation of biodiversity in Ethiopia and it will be a benchmark for biodiversity conservation measures.

2. Literature Review

Conservation of biodiversity and environmental protection has been an important part of the religious, social, and cultural ethos in traditional communities in many parts of the world, including Africa [42]. Many research findings, however, demonstrate that changes in cultural and religious systems brought about by westernization and the entry of proselytizing religions pose a serious threat to Ethiopia's traditionally protected forest ecosystems. Traditional beliefs and institutions contribute significantly to the conservation of both plant and animal biodiversity [27].

3. Traditional Beliefs

Many African countries believe that rocks, streams, forests, ponds, swamps, and springs are the ideal place to meet with their god and the manifestation of the power of the Supreme Being [5]. Big trees on vegetation seemed like a symbol of God's presence and the area is sacred for the spiritual purpose only [17].

Traditional Ethiopian civilizations practice traditional beliefs about items and living beings in their environment, as well as other imagined forces [41] and Some places were given due consideration as sacred. The sacred places are believed to have relations with the Supreme Being [25]. Activities like getting to sacred natural sites and killing and utilization of some species for the sake of protecting the sites from detrimental and despoilment interventions of local people [32].

Waaqeffannaa is one of the most practiced traditional religions in Ethiopia of the Oromo nation [3]. It is derived from the word *waqqa* which means Supreme Being which creates the universe in Oromo belief [45]. The destruction of forests and cutting of young, growing trees results in punishment from *waqqa* (God) believed by *Waaqeffataa*, a traditional Oromo religion [20].

In the Oromo community, the *Odaa* tree (*Ficus sycomorus*) is regarded as a holly tree and a source of different spirits, a center of religious rituals, and a source of people's political wellbeing [37]. *Odaa* had been the Oromo community's holy

meeting ground for various areas of social life, including political, religious, and other ceremonial events [12].

In the Borana community, forest part delineation for spiritual activities and prohibition on the utilization of any aquatic species encourages the conservation and management of wildlife within the forest and aquatic environment [9]. The regulation of taboos of the community forbids urinating in water bodies. In addition to that, fetching water with dirty clay pots is prohibited because they believe that the water will dry up if a person fetches with black pots [19].

In the Horro Guduru area of northwest Oromia, a dense natural forest called *Caato* with a series of interlocked canopies constituting various tropical forest species and aged trees is believed to be a place of supernatural force. *Caato* sacred forest is largely surrounded by quite impenetrable and inhospitable topography and any activity is not allowed. During yearly fixed rituals, animal scarification was performed to prevent diseases believed to result from misdeeds or misfortune, relentless drought, and another natural disaster [43].

Killing wild animals, having sexual relations, burying a dead body, quarreling with another person, crying for a dead person, and urinating in the sacred forest are all prohibited in the Guji Oromo society [38]. These actions desecrate the sacred features of the site as perceived in the myths and belief systems of the community [39].

In the Gurage community, the traditional religion is polytheism in whose three main divinities namely: *Waq*, *Damwamwit*, and *Bozha* are flanked by the Supreme God being performed as a belief [10]. The believers of the traditional religion built a temple called *Waq Zagar*, in which they celebrate their annual rituals. These temples are built in forests of juniper trees. The rituals are led by men who belong to ancient lineages of specialists *abak* (priests). Any human activities like harvesting and utilization of any plant and animal species from the forest are not allowed [33].

Believe in *Magano* (the Supreme Being) is the ancestral religion of the Sidama people of Ethiopia [24]. The Wonshe community of Sidama maintained a grove for noneconomic purposes and adherents of ancestral religion. The veneration of *annu-akako ayana* ('spirit of deceased ancestors'), instrumentalized through sacred forests, trees, rivers, and other natural elements [16].

In Sidama culture, peoples have a positive attitude towards *Daguch* (*Podocarpus falcatus*) and *Seetame* (*Olea capensis*). *Podocarpus falcatus* on ancestral graves are seen as "as if it were my father himself". *Olea capensis* species, on the other hand, has totemic value and continues to occupy a great place in people's memory as "beautiful nature" for its suitability for shade, relative rarity, aromatic nature, and high suitability for firewood [15].

Gedeo people believe in '*Mageno*', the one and only one Supreme Being, and recognize the role of the intermediary between '*Mageno*' and man. Individuals deliver their pleas to "Mageno" in certain locations, such as riverbanks, hillsides, or giant trees. [26]. Social taboos in Gedeo, as indigenous belief have to limit people from cutting down trees from sacred sites,

killing birds, and injuring the environment carelessly. The community believes that the bird is a true indicator for forecasting the upcoming impediments such as death, war, disease outbreak, setbacks, sudden accidents, the onset of the rain season, and ill-luck in-person life. Similarly, some birds have also visualized the upcoming situations like an indicator of good luck such as showering of rains, surplus harvesting, fruitfulness, good marriage, the visit of beloved guests, and declaration of peace in the villages. For this reason, Bird slaughter is considered sinful and a violation of taboos and it is carried out as a disaster [28].

In the southwest part of Ethiopia, certain forest areas and/or plants are declared as sacred places maintained by the cultural community for ritual work in traditional religions, e.g., *Deedo* in the Sheka people is a type of tree under which prayer or religious ceremony is conducted. Coffee beans or a coffee cup spiritually express the fortunes or illness of individuals in the southwest part of Ethiopia. Because of this, the community has a positive attitude toward the *Deedo* and coffee plant. [49].

4. Traditional Social Institutions

Gada (traditional institution) system of the Oromo people plays a significant role in the conservation of natural resources in addition to political, social, and cultural values [23]. It serves as a mediator in Oromo people and nature as the system's dependency on nature especially forest where ritual activities occur, a place of refuge at the time of war, a source of food, and by being the identity to the Oromo people [46].

To conserve natural resources, different protective measures were performed in Borana pastoral community under the *Gada* system. *Seera marraa bisaanii* – „the law of grass and water“ is a typical example. The *Tulaa sallan* (nine *tulaa* wells complexes), *Booqee sadeen* (three volcano craters found in Borana territory), and *Baddaa Sadeen* (forest with tall trees) were protected by the law [9]. Practice, customary norms, belief systems, and laws of inclusion/exclusion, which protect resources from outsiders and manage internal distribution amongst groups, individuals, and families, are all highly regulated [34].

Like that of the *Gada* system, the *Kobo* system of Kaficho people is a forest tenure institution that grants the first claimers an exclusive use right of a block of forest, usually for the collection of nontimber forest products such as forest coffee, spices, honey, and others [49].

In the Majang community of the Gambella region, there is dense forestland with traditional collective and individual ownership rights known as Jang. Jang is the traditional forestland holding system of the Majang and individuals usually own Jang. The forest landowners can inherit rights to their children by the system. The community has a special concern for tall trees like *Cordia africana* that have an economic benefit. In addition to tall trees where beehives, are hung, mountains, hills, valleys, and rivers have been used as a boundary between one Jang and the other [30].

Traditional social institutions *Songo* and *Baallee* system of Gedeo people are culturally structured and solidified

institutions of preserving and protecting natural resources, social values, norms, and cultural landscapes [13]. For instance, the traditional rules (*seera*) have been proclaimed by traditional rulers *Aba-Gada* (traditional leader) at the *daarrarro* (annual thanksgiving ritual) ceremonies. The oral proclamations of *abaa-gadaa* include sociocultural regulation, peace and security, environmental issues, and the preservation of native trees [36]. In these ceremonies, *aba-gada* has announced a local proclamation to *yaa'a* (oral declaration) called *lalabbaa* (oral declaration for conservation) to protect and conserve aged native tree species such as *Pouteria adolfifriedericii*, *Cordia africana*, *Ficus elastica*, *Ficus gnaphalocarpa*, and *Podocarpus falcatus* [29].

5. Cultural Traditions

Culturally, the society of *Maccaa* (clan) Oromo of Western Oromia develops traditional songs about the essentiality of tree conservation [21]. The traditional song reflects the need of conserving trees even in agricultural fields. The song goes as follows: “*Yaa mukeen gaaddisa loonii murtaniiree; yaa gurbeen yaaddessa diana dhufianiiree?*” This is roughly to mean, “Have you cut trees which are shades for cattle; you man who threaten our enemies, have you come?” [20].

According to *Seera Gumaa* (the law of indemnity of the *Gada* System), the Killing of Hartebeest (*Alcelaphus buselaphus swaynei*) is prohibited after hartebeests were adopted to (legally become a member of) the ‘*Hambentu*’ clan (the largest clan in Arsi Oromo). The animal was protected by the *Hambentu* clan members as much as they do for any person of their member and killing of a Hartebeest shall be considered as the killing of a person among the clan. A person shall be charged with and punished according to the human life indemnity law of the *Gada* System if he is found guilty of killing a Hartebeest [7].

Keeping remnants of trees, shrubs, and herbs in and around agricultural fields due to their use as forage, fuelwood, timber, construction, spiritual and ritual needs is a traditional conservation practice in the Guji agro-pastoralists, Blue Hora district of Borana community [18].

The Sheka people adopt a conservation and management culture of the forest called *Gudo*. *Gudo* is a culturally protected forest area found mostly in the rocky and mountainous part where cultural ceremonies are practiced. Society believed that when a person cuts a single tree from the *Gudo* forest, a person will die in the village. Utilization is not allowed in *Gudo* sacred forests except for the harvesting of trees for home consumption at the forest margin. Cultivation of land, raring of domestic animals, cutting of trees for domestic use, and trees used for beehives are not allowed in *Gudo* sacred forests. Even deadwood branches are left to decay naturally and nobody is allowed to use it for fuelwood [40].

In the Gamo Gofa community, *Maga*, *Demusa*, *Zire*, and *Chima* are traditional conservation systems that play a great role in the protection of some animal and plant species from extinction in Zeyse, Zergula, and Ganta communities [47]. Killing and utilization of *Solo* (bird species), *Dulo* (mammal

species), *Gutus (Asio abyssinicus)*, *Dobes (phyton sabae)*, and *Badite (Croton macrostachyus)* is forbidden in the Zeyse community because these species are used as a symbolic sign of *kat* (the king) [1].

The Konso peoples have developed positive attitudes towards the plant *leiya (Ficus vasta)* due to the perception of bringing groundwater to the surface. In Hamer, the same plant (*wombo*) is also considered as one's son, and the trees are mostly owned by individuals [2].

6. Conclusions and Recommendations

Livelihood activities exercised by resource-poor communities and smallholders in Ethiopia are the main cause for loss of biodiversity mainly forest resources. In contrast, the communities have year-long indigenous mechanisms of preserving both animal and plant biodiversity mainly plant biodiversity. These mechanisms are customary laws, oral declarations, taboos, customary punishment, and social banishment that prohibit actions and activities that harm the well-beingness of biodiversity and their natural environment. The customary laws clarify who does what and how in the aspire of preserving biodiversity and sacred natural sites. This study suggests that protection actions must be implemented on traditional beliefs and institutions by the government of Ethiopia. Awareness creation for a new generation about ancestral beliefs and tradition is also very crucial for the conservation and sustainable management of biodiversity. Recognition, promotion, and respect for traditional communities that practice traditional beliefs and institutions by all concerned actors including the scientific community are essential for the fruitfulness of biodiversity conservation. With the active involvement of all stakeholders collaboratively, opportunities can be undertaken and the challenges can be minimized; ultimately achieving sustainable development through community-based biodiversity communication. This will help to promote biodiversity conservation and the vital connections that exist between biodiversity and traditional practices. In addition to this, the indigenous preservation of sacred natural sites is another way of sustaining traditional practices, including registering as an intangible heritage of the community by the United Nations, Science, Education and Culture Organization (UNESCO) as biodiversity and traditional communities are inseparable.

Declaration of Conflicting Interests

The authors declare that they have no competing interests.

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