ORIGINAL ARTICLE

Traditional Forest Management Practices in Jimma Zone, South West Ethiopia

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Abstract

A Study on traditional forest management practices was conducted in three selected woredas of Jimma zone from January 2005 to June 2005. The objective of the study was to identify traditional practices that had contributed to the conservation of forests and to devise means of utilizing these practices presently for the conservation effort of the remaining forest resources of the zone. The methods employed in the study were interview and focus group discussion with local community elders and leaders, Woreda level agricultural experts and kebele administrators. From the study, it was found that the local communities conserve forest tree species traditionally either for religious practices as in the case of Ficus vasta, Podocarpus falcatus, Ekebergia capensis and Ficus sychomore, or for the benefits they drive from the forest as in the case of coffee shade trees (Albiza gummifera, Milletia ferrugnea and Acacia abyssinica), and for the apiculture. There are traditional administrative setups in the community for enforcing these practices but their ultimate authority is presently eroded by modern administrative setups. If these traditional practices are integrated with modern conservation efforts, it will greatly support the conservation of rapidly diminishing forests of the region.

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INTRODUCTION

In Ethiopia, environmental degradation and deforestation have been taking place for hundreds of years. Forests in the entire country declined from the original 35% to an estimated 2.4% in 1992 (Sayer *et al.*, 1992). Annual deforestation rate is estimated to be 150,000 to 200,000 ha (EFAP, 1994). Because of this a considerable area of what was once a closed forest had been converted to a heavily disturbed forest.

The low living standard of the people coupled with lack of alternatives is the fundamental factors responsible for the decline in forest areas of Ethiopia. This is due to the increasing demands for crop and grazing land and wood for fuel and construction (Taye Bekele *et al.*, 1999). Moreover new settlements in forests are increasing and have resulted in the conversion of forestland into agricultural and other land use systems.

The disappearance of these forests is a disastrous prospect for at least three important reasons: they are centers of rich biological diversity and high endemism, they play very important role in carbon sequestration, and therefore in the regulation of global warming, and they are the livelihood of the forest peoples, generally among the poorest of the poor (Taye Bekele *et al.* 1999).

Countries like Ethiopia, where the lives of many rural communities are directly related to natural resources, forest means everything, and thus, all efforts, towards conservation of natural resources and sustainable use of its products is a challenging task.

Forest resources are the fruits of evolution that are developed through the combined influence of physical environment and people, and play important economic, social and cultural roles, particularly in the lives of many local communities (Regassa Feyissa 201).

Much of the bulk of these forest resources exist outside protected areas and beyond active management authorities of conservation programs and projects. Local communities, therefore, are the primary stewards of forest resources. These resources are usually characterized by the local communities' culture and management systems, where cultures are materially and spiritually built upon the physical world of the forests.

Forest and culture therefore, have been intertwined throughout human history, and just as people have acted upon and altered forests throughout human history, so have forests profoundly influenced human consciousness and culture. Local communities' proper access to forest resources around them and respect to their traditional institutions and systems of management of these resources provides the opportunity for safeguarding the resources sustainably (Regassa Feyissa, 2001).

Regassa Feyissa (2001) further stated that regardless of the society, forest practices and responses to trees including approaches to conservation mirror our predominant social values, class systems and attitudes, which are often overlooked by the modern approaches. The direction of the management of forest products and ecosystems at local community level therefore encompass numerous economic, social and cultural benefits as well as those benefits of ecological functions.

For thousands of years the Indians have survived in the Amazon forest, due to their understanding of ecological zones, plant, animal and human relationships, and

systems of the management of natural resources, all of which are the products of complex processes of experimentation (Posey, 1991: cited in Fasil Kebebew, 2000).

Therefore, for forest resources conservation to succeed and its use to be sustainable, traditional management practices have to be considered at all levels of conservation efforts. But presently these traditional practices are being eroded because of several reasons. The breakdown of many of these systems due to pressure of urbanization, cash economies and other socio-economic, political and cultural changes has resulted in the loss of forests and valuable species (Cotton, 1996).

Therefore the objective of this study is to identify the different traditional practices of the local communities in Jimma zone that contribute positively to the conservation of the forest resources and to devise means of utilizing these practices to conserve the remaining natural vegetations of the locality.

MATERIALS AND METHODS

A) The study area

The study was conducted in Gera, Seka Chekorsa and Manna woredas located in Jimma zone of Oromiya regional state. It is located between7^{0}15'N and 8^{0}45'N and 35^{0}30'E and 37^{0}30'E (Fig.1). The zone is one of the areas with few remaining natural forests in the country. The dominant vegetation type in the study area is the moist Afromontane forests which are presently under great threat because of overexploitation and investment activities for coffee and tea plantations. The mean annual rainfall of the area is between 1800 mm to 2300 mm with maximum rainfall between months of June and September. The annual mean temperature of the area is between 15^0 C and 22^0 C (EMA, 1988).

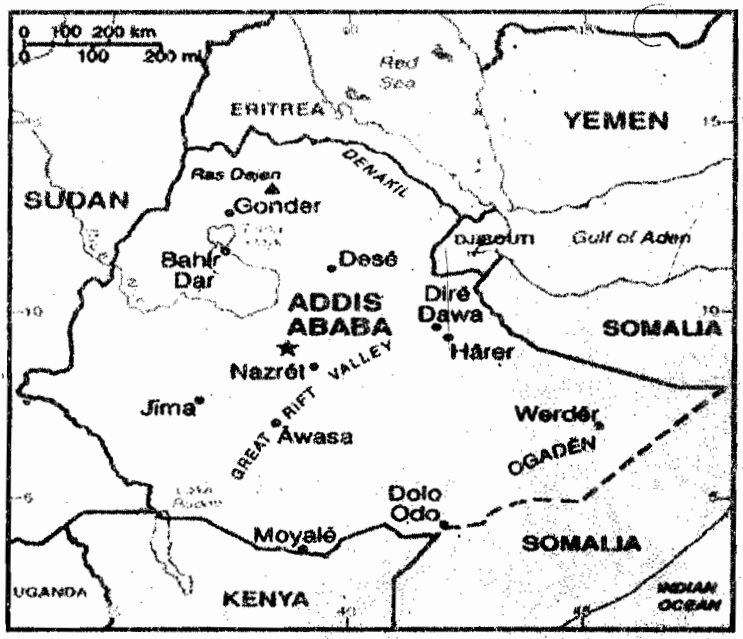


Figure 1. Map showing the relative position of the study area

B) Method of data collection

Information on traditional forest conservation and management practices in Jimma zone was collected from January 2005 to June 2005. Data was collected by using semi structured questionnaire, interviewing and using a focus group discussion with local community elders and leaders, Kebele administrators, zonal and Woreda agricultural office experts. The sampling technique employed in the study was purposive sampling where the community elders and local community leaders were identified in consultation with the local agricultural experts. To get reliable information on the traditional practices of the local community, which are predominantly Oromo nationals, the ethnic background of all the respondents was Oromo.

METHOD OF PLANT SPECIES IDENTIFICATION

Plant species reported by the respondents as having some association with the local communities either for cultural or material benefits were identified in the field. Besides, Voucher specimens of these plants were collected and deposited at the Herbarium of Jimma University.

METHOD OF DATA ANALYSIS

The collected data were analyzed by using excel spreadsheet and descriptive analysis was made to describe main outcome variables.

RESULT AND DISCUSSION

Socio-demographic characteristics of the respondents involved in the study

A total of 100 individuals, of which 90% (90) male and the remaining 10% (10) female were involved in the study. Sixty five percent of the respondents were community elders who resided in the area for more than 50 years, 25% of them being community leaders and Kebele administrators and the remaining 10% were agricultural experts of zonal and woreda agricultural offices.

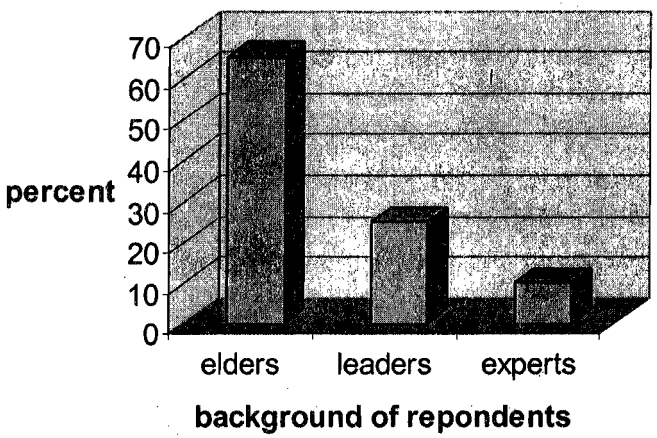


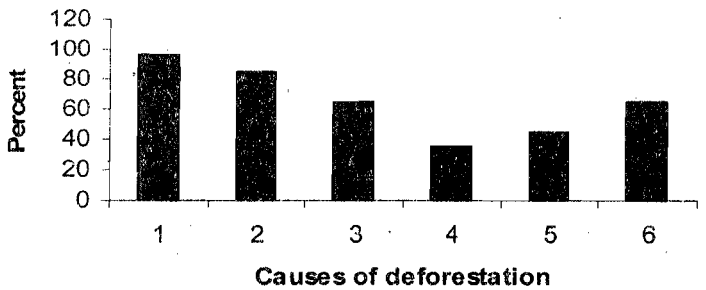
Figure 2. Background of respondents on traditional forest management practice in Jimma Zone, 2005.

Ninety nine percent (99) of the community leaders, community leaders and Kebele administrators believe that traditionally there was forest conservation and management practice in the community. Eighty nine percent (89) of the respondents believe that this practice is presently eroded either because of government administrative setups 95% (95), the decline in the authority of the Gada leaders 67% (67) or religious practices 75% (75).

Table 1. Percentage of respondents on the forest conservation practice in Jimma Zone, 2005.

Items	agree	disagree
There is traditional forest conservation and management practice in your area	99%	1%
This traditional practice is still in operation in your locality.	11%	89%
The causes for the decline of the traditional managements		
Government involvement in the traditional affairs	95%	5%
Decline in the authority of the Gada leaders	67%	33%
Religious practices	75%	25%
There is an effort by government and agricultural experts to incorporate traditional practices with the modern conservation and management practices.	10%	90%
Still there are traditional administrative set ups such as shenecha still operating in the community	100%	0%
The traditional set ups still cooperate to solve societal problems with the government authorities.	98%	2%
It is possible to integrate the traditional forest conservation and management practices with modern conservation approach to rescue the rapidly diminishing natural forests of the locality	95%	5%

Almost 97% (97) of the respondents cited clearing of the forest for expansion of farm land as the major cause of forest destruction in Jimma zone (fig. 3).



1= agricultural expansion; 2=construction; 3= fuel wood and charcoal; 4=forest fires; 5= overgrazing; 6= new settlements

Figure 3. Respondents view for reasons of forest destruction in Jimma Zone

Traditionally, each block of the forest is under possession and supervision of specific clan and used only by these groups or individuals by keeping beehive or having coffee plantation. Entering these areas and cutting trees by any intruder outside the clan is prohibited. Every member in the community is responsible for any destructive activities in his plot area and on forest routes in his direction. The permanent residents are responsible to monitor plot of the seasonal users adjacent to their plots. Accordingly nobody has access to any body's plot without the permission of the owner. There is a social responsibility among all members to mobilize fellow members in case of fire hazard.

Traditional institutions enforce codes to protect the forests and clearly prohibit activities which affect the forest resources such as felling trees from natural forests, commercial logging, charcoal making, timber extraction, unwise use of fire in the forest, debarking and girdling, and indiscriminate underslashing.

From interviews and focus group discussions conducted in Gera, Seka-Chekorsa and Manna woredas of Jimma Zone, the following forest conservation practices were identified.

1) Some forest tree species are conserved as sacred trees

Ficus vasta, Ficus sychomour, Podocarpus falcatus, and *Ekebergia capensis* are respected as sacred trees, and cutting of these trees and their seedlings is strictly prohibited. These are tree species under which different religious prayers and cultural practices are conducted during drought, famine, disease out breaks, unexpected disasters, (People gather under the shade of these trees to pray to God).

Because of the respect associated with these trees, a person who was unable to have a child in his life time plant *Ficus vasta, Ficus sychomour, Podocarpus falcatus,* or *Ekebergia capensis* that will be named after him(because nobody cuts these trees and can remain for generations bearing the name of the individual).

Even though the local people are determined to retain them, these species of trees are often as vulnerable as other tree species because of mounting economic pressures, change in land use patterns and a phenomenal rise in the forest products which have contributed to a serious depletion of resources.

Although these practices undoubtedly contributed to the conservation of forest species, it is impossible under present situation, the complex history and tradition that have created and maintained these species and their areas can be operational as a tool or model for further conservation efforts.

Also from the result of discussions conducted with Woreda agricultural experts it was found that no significant consideration is given to the traditional systems of forest conservation practices of the local communities.

The modern conservationists overlook the fact that local communities are the primary stewards of forests and that they have the practical knowledge and skills of resource management. Usually, different professionals involved in conservation bring in their own varying conservation codes and principles, which are at odds with the interests and resource management styles of the local communities (Cotton, 1996).

This may lead to the conclusion that modern forest conservation approaches

poorly understand the holistic world views and forest related ways of life of the local communities. The approaches exclude humans from the resource management system to the extent that societies are often unable to appreciate the values of vegetated lands until the substantial proportion of them are converted in to other uses (Cotton, 1996).

2) For the benefits the local people derive from the forest resources
The local people also conserve forests for the following benefits they are deriving from it.

A) Honey extraction
Schefflera abyssinica, *Croton macrostachyus*, *Vernonia* sp. are preferred by bees and protected by the local people for the benefits derived from these species in bee keeping. *Albiza gummifera, Aningeria adolfi-friedrichi, prunus africana, Milletia ferrugnea, podocarpus falcatus, Croton macrostachyus, Ekebergia capensis* etc, are preferred to keep bee hives on their long branches and are protected.

b) For coffee plantations;
According to the respondents the most preferred tree species as coffee shade trees are *Albiza gummifera*, *Acacia abyssinica* and *Miletia ferugnia*, because of the size of their leaves and their crown that obstruct direct rain splash and ice, and allow light and rain water to reach the coffee plant without causing damage to the plant and the soil. They also have small leaves that can easily pass through coffee tree branches without causing damage to fruits and flowers when they are shedding.

From the known coffee shade trees *Albiza gummifera* is more preferred tree species because of its reverse phenology, i.e, shedding leaves during the rainy season and growing during the dry period when coffee plants need shade.

c)Extraction of other non-timber products
The cash crops *Aframom korerima* and *"timiz"* (wild pepper) are obtained from the forest as wild and the local people know that these products exist only when the forest is kept intact.

3) As shelter for cattle during dry periods and balancing of the weather conditions.
4) Protection of springs called *horaa's* used for cattle's drinking- these springs are salty and highly preferred by cattle. This means that the local communities know that if these forests are removed these important sources of water will also get dry.

In some parts of Ethiopia, there is a practice of removing forests around farms and residences to keep away herbivorous wild animals from their farms, but in the study area there is a practice of digging big trenches that prevent the passage of herbivorous animals and carnivores to farms and cattle.

These traditions of forest conservation existed for generations in the society and any one who fails to fulfill these obligations will suffer from social sanctions such as being excluded from any social organizations, lack of support from the community during illness, death, etc.
Feyera Senbeta and Demel Teketay (2003) also reported that the *Shenecha*, collective traditional management system of the Oromo people is responsible for regulating the forest use types over time and space. They also every body used to respect this traditional institution and any member of the community who did not obey the regulation of the *Shenecha* were punished.

There are traditional leadership setups such as *jiga* and *shane* having the traditional authority (*hayyu* and the leaders called

abba hayyuu) of executing these social obligations. Besides, the traditional system of conserving natural resources, presently the local people are cooperating with the local authorities regarding forest conservation as they understand what forest is mean to them(believe that their life is associated with the existence of the forest).

Government authorities are using the traditional leaders' influence for execution of state programs and policies but the social sanctions enforced by the *abba hayyus* on individuals who do not complying with the traditional systems can be reversed by the government authorities. Any way the social obligations are more respected by the people than the one enforced by the government. Feyera and Demel 2003 also reported that in the last four to five decades the power of this traditional institution was eroded due to political and economic changes in the society.

From personal interviews and group discussions with the authorities and local inhabitants and also from personal observation it has been revealed that the major threats to forest destruction is expansion of agriculture by clearing forests which is mainly associated with increase in the number of population.

From the study it has been revealed that the major threat to these natural forests comes from settlers moved from other parts of the country as these people are alien to the values and obligations of the indigenous inhabitants of the forest and to their traditional management system, they don't care for the trees while they are debarking or cutting for different purposes. But the forest inhabitants had lived in the forest for generations by deriving benefit from the forest and by taking care for it (conserving it) and they know the characteristic of the forest and the wild animals associated with it.

CONCLUSION

This study has been revealed that the local communities are well aware of the important benefits they drive form the forest and especially those who are living within the forest have more affinity to the forest as their life is associated with the existence of the forest. The traditional conservation of bigger trees such as *Ficus vasta, Podocarpus falcatus, Ekebergia capensis* and *Ficus sychomore* was because of religious and cultural affairs but at present these traditional beliefs are non-existent. But still these species of trees are respected by the community because of their traditional associations with the trees.

Presently forests in the study area are conserved because of the benefit the community derives from the resources than the non-binding sanctions of the traditional management systems of social sanctions.

The modern forest conservation approaches poorly understand the holistic world views and forest related ways of life of the local communities. The approaches exclude humans from the resource management system to the extent that societies are often unable to appreciate the values of vegetated lands until the substantial proportion of them are converted in to other uses (Cotton, 1996).

RECOMMENDATIONS

As the role of local communities' in conservation of natural resources is decisive for the sustainable utilization:-

- It will be beneficial if the knowledge, practice, social administrative set ups and traditions of the local people are

incorporated in the effort of conservation of these diminishing moist forest resources.

The traditional community leaders (*abba hayyus*) have to be empowered and the administrative settings of the kebele administration integrated with these leaders since they have good acceptance by he local people.

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