

# Assessment of the Challenges and Opportunities of Sustainable Forest Management in Case of Burka Chilalo Kebele

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## Abstract

In Ethiopia, natural resource degradation has become a serious environmental problem. Deforestation, which is occurring at an alarming rate, is one of such problems and a key factor challenging food security, community livelihood and sustainable development. There are many serious problems in our country as well as in burka chilalo kebele which need active solutions, such as: high population growth, deforestation, scarcity of agricultural land, expansion of desertification and soil erosion. The study was conducted in one district in Burka chilalo kebele and other geographical areas are not included in the study. Moreover the study was limited only about challenges and opportunities of sustainable forest management. The general objective of the study was to assess the challenges and opportunities of sustainable forest management in burka chilalo kebele forest. The study was conducted in tiyo woreda specifically in Burka chilalokebele which is found in Tiyo woredas in the Oromia Region of Ethiopia Part of the Arsi Zone. The data was collected through sample survey method. The information was collected from secondary and primary data sources. The major challenges of the forest in Burka chilalo Kebele (BCK) Burka chilalo woreda were deforestation, over population, clearing forest for agricultural land and overgrazing. Generally Burka chilalo is endowed with diverse natural resource in general and forest resource in particular. But due to unwise use of the forest resource of the area which has been taking place for centuries, the remaining forest coverage is extremely very small and declining

**Keywords:** Burka chilalo, forest management, challenges, opportunities,

## 1. Introduction

In Ethiopia, natural resource degradation has become a serious environmental problem. Deforestation, which is occurring at an alarming rate, is one of such problems and a key factor challenging food security, community livelihood and sustainable development. In a year, 150,000 to 200,000 ha of forests, i.e. about 6% of the remaining forest of the country are cleared (Ministry of Natural Resource (MoNR) 1993).

Currently only 2.4% of the total land of the country is under forest cover though it was estimated to have been about 34% in the past (Daniel 1988; Shibru and Kifle 1999).

The fast growing population with increasing demand for farmland and wood for construction and fuel, forest fire, insecure land tenure system, inappropriate conservation approaches and lack of awareness are the most commonly mentioned factors for deforestation in the country (Aklilu 2001; UNDP/ World Bank 1988).

Deforestation has many repercussions that include soil, water and biodiversity degradation. Recognizing the potential impacts of resource degradation, some measures have been taken towards resource conservation in the country. These include establishment of protected areas like parks, game reserves and sanctuaries and mobilization of people to construct physical soil conservation structures for reforestation through food-for-work programs. Nonetheless, the measures taken could not guarantee long lasting protection and preservation of the country's resources (Dessalegn 2001; Feyera, undated; Hurni and Ludi 2000).

At the present, only patches of forests remain in the country, mainly in the western, southern and southwestern parts. One such forest is found in Assela area in burka chilalo kebele. Forest cover has been declining at an alarming rate in this area. This is because of expansion of agricultural land, cutting of trees for fuel, construction, charcoal making and pit-sawing, which are the manifestations of population pressure as well as failure in property rights institutions. Land once covered by natural forest is now converted into agricultural land and settlement.

- ❖ Hence, this study intended to investigate Assessment of the challenges and opportunities of sustainable forest management. Therefore, this study is designed with the following objective To assess the livelihood strategy of the local people
- ❖ To assess the challenges surrounding the management of the forest
- ❖ To identify the opportunities created for sustainable forest management.

## 2. MATERIAL AND METHODS

### 2.1 Description of study area

The study was conducted in tiyo woreda specifically in Burka chilalo kebele which is found in Tiyo woredas in the Oromia Region of Ethiopia Part of the Arsi Zone. Burka chilalo is bordered on the south by Haro Bilalo and Dosha, on the west by Asella Town, on the north by Dankaka Qonicha, and on the east by Cilalo Mountain. The administrative center of the woreda and Zone is Asella. Located in the Arsi Zone of the Oromia Region

about 175 kilometers from **Addis Ababa**, this city has a latitude and longitude of **7°57'N39°7'E**, with an elevation of 2430 meters. This kebele is found by faring 2km from Asella town in the direction of north east with containing the total land mass land of 9690.75 ha, which are used for different purpose. The total population of this kebele is 4028, from this 2031 is male and 1997 is female. And also the total house hould of farmers in kebele is 553, from this 447 is male and 106 is female (office manual 2007).

The topography of the kebele land area varies from undulated land slope to mountain; the altitude ranges from about 1900-2500m above sea level. Many small rivers starting from natural forests or from Chilalo Mountain (office manual 2008). The agricultural land area of kebele is 1130.75 hectares which is used mainly for mixed farming, that including crop cultivation such as barley 54%, wheat 30%, maizel.45%, pea 5%, bean 7%and also sorghums and teff are rarely cultivated, tree planting and grazing land (kebele agricultural extension office report 2010 and field observation).

### 2.1.1. Method of data collection

For the purpose of this study, data was obtained from both primary and secondary sources. Primary data was obtained or collected through interview based questionnaires (both open and closed end), direct field observation, and focus group discussion (FGD) with experts in the study area. Secondary data was obtained from published and unpublished documents were used to get enough information that supports the research and its acceptance. On both data collection, special effort such as ensuring the randomness of sampling were employed to control quality of data that wanted to be collect.

### 2.1.2. Sampling technique

The sample was taken through purposive selection technique. Because the sample selection should involve educated, illiterate, age, sex parts in local area communities. The sample size of the study was 30 households out of 553 household live in the kebele. The sample was taken from households who live surrounding the forest.

### 2.1.3. Data analysis

Both qualitative and quantitative data that was conducted from the sample respondents through survey, questionnaire, interview and observation was organized in a manner which facilities its analysis. The data was analyzed using statistical procedures such as frequency and percentage with using table and descriptive presentation way.

## 3. RESULTS AND DISCUSSION

### 3.1. Households' characteristics

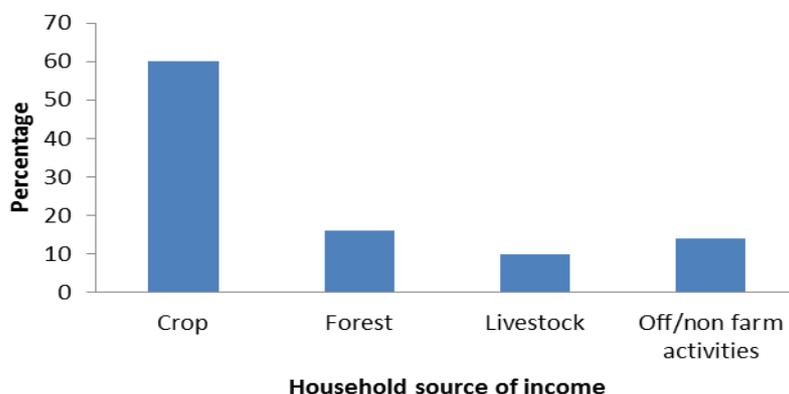
Table 1: Sex, educational status and age status of the respondents in the study area

Sex	(N=30)		<i>Variables</i>					
	N	%	Education	N	%	Age	N	%
Male	18	60	Illiterate	15	50	≤ 30	8	27
Female	12	40	Primary	7	23	≤ 30	31	37
			Secondary	3	10	41-50	4	13
			Higher	2	7	>50	7	23
			Religious	3	10			

### 3.2 Livelihood strategies of the local people

Based on results of this study people in Burka Chilalo Kebelle depend on crop production, livestock husbandry, forest product collection and off/non-farm activities.

Figure 1: Household source of income



Crop production is the main source of household income in the study area (60%). Of the crops grown in the area, cereal crops are the most widely grown. The second most important household source of income in the

study area is forest product collection (16%). Fire wood, grass, tree seed, farm implement and construction materials were identified as the first major types of forest products have been extracted from the forest. Livestock husbandry is the third most important source of household income (10%) next to income from forest products. The household income contribution of off/non-farm activities (support from government and different NGOs, wage employment and daily labor) is the fourth most important next to livestock husbandry (14 %).

### 3.3 Forest management activities in the area

Burka chilalo is endowed with diverse natural resource in general and forest resources in particular. In the kebele both natural and plantation forests exists. These forest resources are owned by three owners, these are; state, private and the common.

Table 2.shows the forest owners and their area coverage in the area

NO	Forest owners	Area coverage in hectare(ha)	In percentage (%)
1	Private	41.7	43.62
2	Common	7.08	7.40
3	State	46.8	48.96
Total		95.58	100

Source: BCK office

The above table shows that the state forest covers a larger area relatively and its managed by the state and the privately managed forests also covers a larger area and it's managed by the households

These forests are managed by the community and government and different management activities practiced for the management of both natural and plantation forests. The plantation forests are managed the by coercive management approach which has low participation of the local community and the natural forests are managed by collaboration of local community and government participation.

Today Forests have multiple functions in today's society, and the principles of multiple objectives management of different forest categories is expected to achieve such expectations. Addressing the problems of deforestation and forest degradation will enhance ecosystem services that have knock - on effect on other sectors such as energy, and agriculture. Additionally, the demand for wood and non - wood forest and tree products could be satisfied. Through appropriate management, the various objectives could be optimally achieved, including enhanced carbon sequestration in forest resources.

### 3.4 General challenges of sustainable forest management in the area.

There are a lot of problems which are related with forest management in Burka chilalo kebele. These include scarcity of resources like agricultural land which led to clearance of forestlands, settlement, and illegal deforestation and over grazing are among others. The type and degree to which sample households faced the problems vary. Of the total respondents, about 9% reported that their members faced agricultural land scarcity which led to clearing forest in the area. Some of them also responded that there were the shortage of wood for fuel and construction which led to deforestation (9% of households), for feeding their cattle in forest /over grazing/ (4%). And other problems accounts for (3%).

Table 3 shows the challenges of sustainable forest management according to the sample respondents in the burka chilalo kebele.

No	The problems according to sample respondents	Frequency (numbers of respondents)	Numbers of respondents in percent (%)
1	Settlement	6	20%
2	Illegal deforestation	9	30%
3	Over grazing	4	13.3%
4	Clearing forests for agricultural land	8	26.7%
5	Others	3	10%
6	Total	30	100

### 3.5 The opportunities

Some of the components that are discussed as opportunities for the kebele's sustainable forest management are the followings:

- Increased collaboration, involvement, continuous follow - up and support of relevant regional and local government sectors.
- Comprehensive and unified understanding within FM (forest management ) staff at all levels including training of field practitioners.
- Making use of and strengthening already present traditional systems; repeatedly
- Consulting the community; communicating and building consensus with local community.

- Link income generation to forest management as well as improving market access for forest products.
- Enabled exchange of experiences between farmers and communities at the forest management sites. It lead farmers copying the methods that are introduced in the forest management areas

## 5. CONCLUSION AND RECOMMENDATION.

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.

Burka chilalo is endowed with diverse natural resource in general and forest resource in particular. But due to unwise use of the forest resource of the area which has been taking place for centuries, the remaining forest coverage is extremely very small and declining. The primary causes of forest destruction are agricultural expansion, the deforestation problems for different purposes, the demand for increasing amounts of construction material, forest fires, fuelwood and charcoal; as well as expansion of re/settlements and livestock grazing.

Generally the local people in and around burka chilalo obtain their livelihood mainly from agriculture which is mixed type of agriculture and forests. The forest plays a great role in their livelihood ,so the communities are working the best with the government for the sustainable management and conservation of the forests in their locality. Therefore, the following points are recommended.

- ✓ Government support should not isolate from them in order sustain the benefits obtained from the FM.
- ✓ Giving awareness about the benefits of the FM in the livelihood of the local community
- ✓ To employ or assign well trained professional in a field to help the community in management.
- ✓ To educate and provide other information for all community that live in the forest area.
- ✓ Appreciating and if possible rewarding those who participate actively in the management of the forest.

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