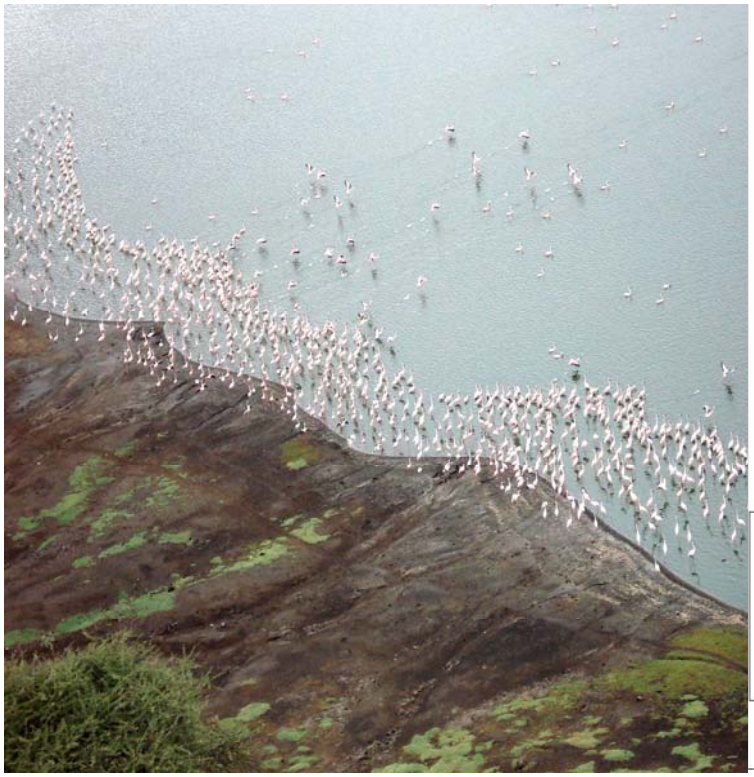
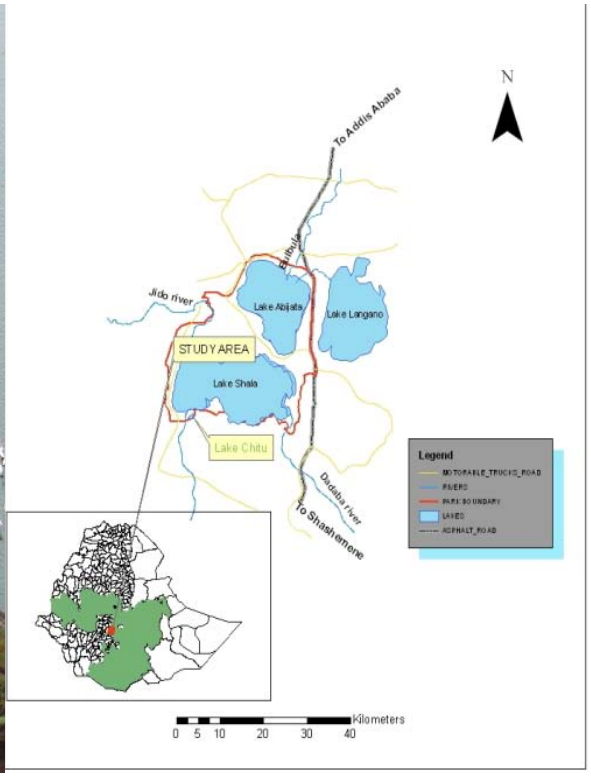
Assessment of Ecotourism Potentials for Sustainable Natural Resources Management in and Around Abijata-Shala Lakes National Park in the Central Ethiopian Rift Valley

By Adem Gobena





Thesis Submitted to the School of Graduate Studies of Addis Ababa University in Partial Fulfillment of the Requirements for the Degree of Master of Science in Environmental Science

March, 2008

Addis Ababa, Ethiopia

ADDIS ABABA UNIVERSITY
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ASSESSMENT OF ECOTOURISM POTENTIALS FOR SUSTAINABLE NATURAL RESOURCE MANAGEMENT IN AND AROUND ABIJATA-SHALA LAKES NATIONAL PARK IN THE CENTRAL ETHIOPIAN RIFT VALLEY

By

Adem Gobena Dello

A Thesis Presented to the School of Graduate Studies of the Addis Ababa University in Partial Fulfillment of the Requirements for the Degree of Master of Science in Environmental Science

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ABBREVİATİONS AND ACRONYMS

ASLNP	Abijata Shala Lakes National Park
CBNRM	Community Based Natural Resource Management
CTHP	Community-based Trophy Hunting programmes
CVM	Contingent Valuation Method
EFCOT	Ethiopia Forum for Community Based Tourism
EPA	Environmental Protection Authority
Eth.	Ethiopian
EWCO	Ethiopia Wildlife Conservation Organization
EWNHS	Ethiopia Wildlife and Natural History Society
FNG	Federal Negarit Gazeta
GTZ –CBET	German Agency for Technical Cooperation-Community-Based Ecotourism
IFMP	Integrated Forest Management Project
LUPO	Land Use Planning of Oromia
MACP	Mountain Areas conservancy Project 1.Introduction
MoARD	Ministry of Agriculture and Rural Development
MOCT	Ministry Of Culture and Tourism
NACOBTA	Namibian Community Based Tourism Association
NGOs	Non-Governmental Organization
OECD	Organization for Economic Cooperation and Development
SNV	Netherlands Development Organization
UCOTA	Uganda Community-Based Tourism Association
UNCTAD	United Nations Conference on Trade and Development
WAJIB	Waldaa Jirattoota Bosonaa in Afan Oromo meaning "Forest Dwellers Association"
WTAC	Willingness to Accept Compensation
WTO	World Tourism Organization

ABSTRACT

In the face of degradations of natural resources and lack of alternative options, there are potentials of ecotourism in and around Abijata Shala Lake National Park (ASLNP) which degraded by anthropogenic activities .The major objective of this study was assessing these potentials of ecotourism or alternative options for sustainable use of natural resources which will improve the livelihood of local communities and conservation of ASLNP. Survey questionnaires and literature reviews were employed to collect primary and secondary data and to assess the socio-economic situation of the households, ecotourism resources, and the related problems of natural resource managements to come up with solutions. Five peasant associations were selected using purposive sampling from 18 peasant associations in and around ASLNP. Thereafter, 168 households were selected from 1334 targeted populations (households) of five peasant associations by systematic sampling (i.e., from a list in a certain order in which every eighth household was chosen). Survey questionnaires were employed to collect information from households of local people, four hotels or lodges, tourists, ASLNP and other related stakeholders like Oromia Bureau of Agriculture and Rural Development and Cultural and Tourism offices at different administration levels. The respondents of different stakeholders except households of local people and tourists have been selected by purposive sampling in order to get related information to the research. About 58 respondents of tourists were selected by random sampling from 290-targeted tourists of those visiting ASLNP in September 2007. The analyses of the study revealed that natural and cultural resources such as abundance and diversity of bird, scenic landscape, ostrich farm, hot springs, cultural and historical attractions and some hotels or lodges at nearby areas are the main ecotourism potential in ASLNP. Deforestation, expansion of farming, overgrazing and over extraction of water coupled with conflicts between park and local communities are detected as the major problem contributors to the degradations of natural resources of the area. The study also revealed some income generating alternatives or ecotourism potentials which could help to reduce the present degradations of natural resources of the park. About 37.2% of sampled households expressed their interests for diversified livelihood or ecotourism

activities. Offering tourist facilities and services and creating job opportunities for members of local communities are the positive impacts of the tourism activities whereas cutting trees, occurrences of seasonality and leakages are the negative impacts. The negative impacts might be able to aggravate poverty and consequent deterioration of tourism resources/natural resources. Finally, reinforcing existing off-agricultural livelihoods, introducing additional alternative options or ecotourism are important strategic directions for sustainable management of natural resources for ASLNP and related protected areas.

Key word: Ecotourism, leakage, Park, Poverty alleviation, and Tourism

CHAPTER 1 : INTRODUCTİON

1.1 Background and Justification

Tourism comprises the activities of persons traveling to and staying in places outside their usual environment for not more than one consecutive year for leisure, business and other purposes. It is the largest and fastest growing industry, which has the best possibility for generating many new jobs worldwide. It could be act as business in rural areas since it does not require year's long vocational trainings (Rannersmann, 2003). Although tourism contributes to the economic development, in latter periods it resulted in very negative environmental impacts due to the large number of visitors (mass tourism) damaging destination areas of tourists. Because of this, since in the 1990s, the tourist concern for environmental issues increased and ecotourism became known and tourism is recognized as an economic sector that needs to develop sustainabile (Holden, 2003).In developing countries tourism or ecotourism has become one of the economic sectors that generates substantial income and maintains conservations of protected areas. For example, in Kenya in Amboseli National Park the income obtained from ecotourism is 18-20 times more than the income obtained from agricultural activities (Thedros Atlabachew, 2002).

In case of Ethiopia because of the majority of its population are engaged in agricultural activities instead of on off-farm activities like ecotourism, natural resources are exposed to extreme degradations (EFCOT, 2003).For example, as Dagnachew Legessea et al. (2003) stated the Central Ethiopia Rift Valley (CERV) areas that endowed with a number of lakes and huge potentials of natural resources used for recreation are affected by excessive land degradation, deforestation, and over-irrigation.

According to Zinabu Gebre-Mariam (1998) during the recent years the damages in lakes, areas of Ethiopian rift valley were aggravated by deforestation and overgrazing. Irrigation at upper watershed areas and the soda ash extraction plant on Lake Abijata could contribute to negative impacts on the fish and wildlife population

supported by the lake Abijata. Zinabu and Elias (1989) also stated integrated sustainable management of natural resources as a need of urgent interventions for the major environmental problems in the rift valley to mitigate the consequences of environmental problems on the fragile ecosystem.

EFCOT (2003) also indicated alternative means of income generations and off-farm activities to minimize degradations pressure on endangered environments in rural areas of Ethiopia. Ecotourism could be as a good example of alternative income generation and off-farm activities which benefit local communities while achieve the conservation goals of natural resources. Furthermore, Scwenk (2002) indicated assessment of ecotourism or simple nature tourism does not need more facilities and depends on locally obtained facilities or natural capital of the poor that can be managed locally.

In order to make tourism sustainable in Ethiopia case there was an attempt to introduce ecotourism to rural areas as component of natural resources management through creating diversified livelihoods for local people (Van Ter Beek, 2001).Moreover, natural resources can provide economic potential through ecotourism beside other uses (Couralet, 2004).

Even though ecotourism was known since 1990s when environmental issues of tourist destination areas increased (Sindiga, 1999) it was introduced in Ethiopia as component of soil and water conservation under Land Use Panning of Oromia (LUPO) aims to create alternative income generating options to reduce pressure on natural resources. For example, the Integrated Forest Management Project (IFMP) introduced into Adaba-Dodola in the West of Bale Mountains National Parks in the aim of conservation of natural forest. IFMP organized forest association dwellers by developing ecotourism through creation of non-wood income generating that reduce degradation of forest of project area (Tsegaye Taddesse, 2007).

Ecotourism could be a link between protected areas and local communities by generating income for local communities while conservation goals of protected areas achieved. Brodnig (2006) also stated that ecotourism could be very important where the ecosystem is fragile and other forms of natural resource management might be impossible.

Accordingly, the major purposes for the study to be undertaken in the Central Ethiopian Rift valley in and around Abijata-Shala Lakes National Park (ASLNP) was in order to assess ecotourism potentials as solutions in a way to manage the destructions of natural resources by sustainable use while local communities are being benefited.

1.2 Problem Statement

Even though natural resources have a certain contribution for development of tourism in Ethiopia in addition to its major contribution to livelihoods of the majority of Ethiopians, large of attractive natural and cultural resources are exposed to degradations or threats due to negligence (EPA, 1997). Shibru Tedla (1994) stated that even though the objectives ASLNP are to protect natural resources its natural resources are seriously damaged. Especially, the ASLNP is affected by human and/or livestock interferences since in 1991 and 1992 when lawlessness prevailed in protected areas of Ethiopia. Similar to others protected areas of Ethiopia; conflicts between local communities' and ASLNP are the difficulties in management of Abijata-Shala Lakes National Park. Consequently, the local communities devastated the ASLNP by extensive tree felling for the production of charcoal. Feyera Senbeta and Fekedu Tefera (2001) also stated that, Abijata-Shala Lakes National Park exposed for severe degradation of natural resources and even slight overgrazing cause's serious consequences to land of the park.

According to EWNHS (1996) recently due to the fish in Lake Abijata died out, most of fish-eating birds have left the ASLNP area. However, Lake Abijata is still a wetland of international importance, recognized by several species of birds. Shibru Tedla acknowledged (1994) that the park management also has contribution for

destruction of the park since it is powerless to control over the park areas .This due to shortage of appropriate employee and lack of participation of the local communities in the management of the protected areas.

The consequences of environmental problems could be severe due to fragile ecosystems of the areas in Ethiopian Rift Valley (Zinabu and Elias, 1989).Brodnig (2006) stated that ecotourism can significantly contribute to sustainable use of natural resources in environments, where other forms of natural resource management might be limited because of poor soils or harsh climatic conditions. Accordingly, the lowland areas like CERV in and around ASLNP are where people suffered from food insecurity and other related social problems it evident that the local people in these areas are depending on natural resources for their subsistence economies that in turn led to severe degradations of natural resources.

On other hand, natural resources such as, flora, fauna and water in and around Central Ethiopian Rift valley damaged severely unless immediate action to be taken to prevent further loss of the natural habitat(Zinabu and Elias, 1989). According to EWNHS (1996) due to the fish in Lake Abijata died out, most of fish-eating birds left the areas. For example, the current disappearances or reduced in numbers of Great White Pelicans from Lake Abijata (Mohammed Abdi,1993) which were numbered 6000 to 10000 at Lake Abijata(Urban ,1969) is a good indicators for destructions of ASLNP due to problems of management which necessitated ecotourism assessment.

As far as analysis of different literatures, indicated most of the studies have not been focused on sustainable management of natural resources relating to ecotourism in and around ASLNP. Limitation or problem how natural resources of ASLNP and surroundings being manage in sustainable way related to ecotourism is the main difficulties of the area while huge potentials of underdeveloped ecotourism is available.

Therefore, the study focused in assessment of potentials of ecotourism and alternative options of income generating for local people and sustainable management of natural

resources in ASLNP and surrounding areas.

1.3. Objectives

1.3.1 General Objective

Assessing ecotourism potentials (natural and cultural tourism resources) in and around the Abijata-Shala Lakes National Park for sustainable management of natural resources.

1.3.2. Specific Objectives

- To assess ecotourism resources including natural and cultural resources, tourists facilities and services and status of tourism activities in around Abijata-Shala Lakes National Park,
- To identify the main management problems in relation to ecotourism resources of the area,
- To assess the major socio-economic conditions of local communities in relation to the management of ecotourism resources and
- To assess the diversified livelihood or ecotourism activities that can be integrated with sustainable management of natural resources.

CHAPTER 2:LITERTURE REVIEW

2.1. World Tourism Development

Tourism was internationally being known since 1950 (WTO, 2002c) and nowadays it is the largest and fastest growing business which contributes to lots of new jobs including in rural areas since it does not require long-term trainings (Rannersmann, 2003).Because of the increasing and fast growing of tourism, currently more than 650 million international tourist arrivals in the world which it will be more than 1,600 million by the year 2020 (Holden, 2003).

Table 1: Forecast growth of international tourist arrivals by regions annual growth rate (%) in Forecast period, 1995-2020

RECEIVING REGIONS	INTERNATIONAL TOURIST ARRIVALS						
	Av. Annual. Growth (in Million)				Av. Annual Growth Rates		
	1995	2000	2010	2020	1995-2000	2000-2010	2010-2020
Europe	336	385	521	714	2.9	3.1	3.2
East Asia	81	93	194	388	2.7	7.6	7.2
Americas	110	93	190	282	3.3	3.9	4.0
Africa	20	130	48	78	6.2	5.7	5.1
Middle East	14	27	36	69	6.2	7.0	6.7
South Asia	4	6	11	19	5.7	6.7	5.8
World Total	565	659	1000	1550	3.2	4.2	4.5

Source: World Tourism Organization (WTO, 2002c)

2.2 Tourism in Africa

Even though Africa is the world's poorest region, with almost fifty percent of its population living with less than $ 1 per day, especially in rural areas it is recognized by its huge potentials for tourism development (WTO, 2002c).There is no inadequate facilities and services infrastructures in many places which hampers the full use of exploiting this potentials of tourism even though there is an existing potentials for developing tourism in Africa. The major trends influencing the growth of international tourism globally will also apply in Africa. The will particularly benefit from the increasing international travel interest in nature and cultural tourism and other forms of special interest tourism (WTO, 1999). It is evident, that there is an opportunity exists for Africa to have a fairer distribution of tourist flows across the world, with the purpose of contributing to the alleviation of poverty in the continent (WTO 2002c).

According to WTO, international tourist arrivals in Africa are will to reach 77 million by 2020. This represents an average annual growth rate of 5.5 percent for the period 1995-2020, which are almost one-and- a-half percentage points above the expected to increase over the forecast period from 3.6 percent of worldwide arrivals in 1995 to a too little 5 percent in 2020 (Table 2).

Table 2: International Tourist Arrival, 1950-2020 (million)

YEAR	EUROPE	AMERICAS	EAST ASIA	AFRICA	MIDDLE EAST	SOUTH ASIA
1950	16.8	7.5	0.2	0.5	0.2	0
1960	50.4	16.7	0.7	0.8	0.6	0.2
1970	113	42.3	5.3	2.4	1.9	0.9
1980	186.1	61.4	21.5	7.3	7.5	2.2
1990	282.9	93.6	54.6	15.1	9	3.2
2000	397	131.5	100.1	28.6	19.2	5.7
2010	527.3	190.4	195.2	47	35.2	10.6
2020	717	282.3	397.2	77.3	68.5	18.8

Source: WTO Tourism vision 2020

2.3 Tourism in Ethiopia

2.3.1. Tourism Development of Ethiopia

In past periods, merchants played a considerable role for introduction of religions to Ethiopia, which contributes a lot for evolution of tourism in Ethiopia. It was also believed that the Portuguese's missionaries and other Europeans came to Ethiopia as earlier visitors when they made explorations to the source of Blue Nile (Ayalew Sisay, 1992).

2.3.2 The role of tourism in Economy of Ethiopia

The numbers of tourists flow can estimate regarding to the economic and social affairs, the effects of tourism in Ethiopia and the amount of money received from international visitors. The effect of tourism also to be measured through the expenditures of tourists that have impact on Gross Domestic product (GDP) or the over-all income and earnings from the tourism sectors activities such as job opportunities and services. As far as recorded data indicated that the foreign visitors arrived in Ethiopia in 1963 were 19,836 and revenues obtained from tourists in this year was 11 million Ethiopian Birr (Ayalew Sisay, 1992). However, recently the numbers of tourist arrivals and the revenues can be obtained from tourists is significantly increasing. For example, in year 2005 about 227,398 tourist arrivals reached Ethiopia and about 1,202,368,339 Ethiopian Birr generated from these tourists (MoCT, 2006). Table 3 presents trends of tourists' arrivals in Ethiopia from years 2001-2005.

Table 3: Trends of tourist arrivals and money received from these tourists in Ethiopia from years 2001-2005

Year	Tourists Arrivals	Receipts (in millions)		Growth rate (%)
		Birr	USD	
2002	156,327	676.1	77.1	-
2003	179,910	778	89.946355	15.1
2004	184,079	994.408062	114.627850	2.3
2005	227,398	1,202.368339	138.599940	23

Source: Ethiopian Ministry of Culture and Tourism, 2006

As can be observed from Table 3, during the years 2002/03, 2003/04 and 2004/05 arrival has registered high growth rates of 15.1%, 2.3% and 23% respectively in Ethiopia.

Foreign exchanges earnings from tourism sector also increased from 77.1 million US$ in 2002 to 138.6 million US $ in 2005 increased by growth rate of 16.6% to 20.9% respectively in each year (MoCT).Annex 1 presents foreign exchanges earnings from tourism in Ethiopia from 2002 to 2005.

The contribution of tourism to Ethiopian GDP is low when compared to the other Eastern African countries. For example, in 1996 tourism contribution in Ethiopia was about its 0.5 % GDP whereas its contribution to Kenya was 5.1 %of its GDP in the same year. Table 4 presents tourism Contribution to GDP at current Market price in Million Birr for Ethiopia. Annex 2 presents tourism contribution to GDP or contribution to economy of African countries in 1996.

Table 4: Tourism Contribution to GDP at current Market price in Million Birr for Ethiopia from 1996-2002

Year	GDP**	Receipt	% of Contribution
1996	37,937.6	182.665	0.48
1997	41,465.1	279	0.67
1998	44,840.3	225	0.50
1999	48,687.6	252	0.52
2000	52,074.2	577.8	1.11
2001	53,011.3	642	1.21
2002	51,560.6	676.1	1.31

Source: Ethiopian Tourism Commission

2.3.3. Potential of tourism Resources in Ethiopia

Ethiopia is endowed with unique cultural heritages and attractive natural resources that attract tourists. The oblique, churches, castles, archeological sites, caves are some of cultural resources of Ethiopia. There are also high diversity of plants and animals in Ethiopia. In addition to these, there are impressive features such as high mountains,

rivers, and lakes in Ethiopia. The favorable diversity of climate is the other factor what makes Ethiopia to attract tourists. Having Addis Ababa as venue of seat for Africa Organization Unity and United Nation Economic, commission for Africa is also another feature of attractions for Ethiopia (MoCT, 2006).

The ASLNP or study site in the Central Ethiopia Rift Valley Lakes area is one of the major ecotourism potentials sites in Ethiopia. CERV endowed with multitude habitats, which attract birds of Africa, Europe and Asia because of high altitudinal elevations 1351 meters to 1837 meters above sea level. In Central Ethiopia Rift Valley lakes, Lake Abijata is the most exciting with largest concentration of birds and it is the best and, most accessible bird area in Ethiopia. At Lake Abijata several thousands flamingoes with Greater Flamingoes and Lesser Flamingoes and Great White Pelicans and other species of birds of Ethiopian and those migrating birds from other countries are residing. The most outstanding features of Abijata's avifauna were its concentrations of Great White Pelicans. Lake Abijata was the habitat for one of the largest Great White Pelicans numbers in Africa which numbered 6000 to 10000 (Urban, 1969).Currently these birdlife areas or avifauna areas are delineated as ASLNP as bird sanctuary and protection of the surrounding ecosystems.

Currently these birdlife areas or avifauna areas are delineated as ASLNP as bird sanctuary and protection of the surrounding ecosystems which are predominated by Acacia –woody lands. In ASLNP, the islands of Lake Shala used as breeding sites for large numbers of cormorants, storks and small numbers of Great White Pelicans. One endemic, the Yellow-fronted Parrot, and five species restricted to the Highland biome have been recorded, whereas two Categories 1 Globally Threatened bird species: Imperial Eagle, Wattled Crane and Near Threatened include Lesser Flamingo, Pallid Harrier, Basra Reed Warbler and Black-winged pratincole were recorded in ASLNP in CERV (EWNHS, 1996).

2.4 Ecotourism

2.4.1 Emergences and development of Ecotourism

Although tourism has a significant contribution to economic development and conservation of environmental resources, it also became negative impacts on tourist's destination areas. Especially during the past decades because of the interest of business profit of the tour operators to attract more tourists, which resulted in high negative impacts of tourist's destinations, principle of nature-based tourism or eco-tourism was not considered. The negative impacts were seen like degraded vegetation, wildlife casualties, pollution of water and atmosphere in tourists' destination areas. Consequently, in the 1990s, the attentions for environmental issues of tourists' destinations areas were increased and ecotourism to be pronounced (Sindiga, 1999).

Ecotourism was given more concerns since the world Ecotourism Summit in 2002, because it is expected as a tool for ensuring sustainable conservation of destination areas, satisfying the enjoyment of tourists, benefiting the destination community and contributes to poverty reduction (Theodros Atlabachew, 2004).

Ecotourism has a wide range of meanings because of different parties or people defined it according to their own specific interests and priorities instead of all things to all people Strasdas (2002). According to Okello (2003), ecotourism refers to tourism that is nature based but that seeks to minimize harmful impact and seeks to promote conservation. Scwenk (2002) also defined ecotourism as a sustainable development of tourism potentials, which consider the social, the ecological and economic aspects.

Especially, according to the recent WTO market surveys conducted indicated that, the growth of ecotourism demand will favors Africa. The region is likely to attract a higher proportion of tourists, both those on ecotourism tours and those seeking out newly developing destinations, which are abundance in the region (WTO, 2002c).

2.4.2. Development of ecotourism in case of Ethiopia

The concept of ecotourism is a new phenomenon to and it is difficult to explain its significance achievement since the approach of ecotourism is not widely disseminated in Ethiopia. The government of Ethiopia also has recognized development and promotion of ecotourism and provided consultancy services for a number of potential developers of ecotourism sites. Although, developers and policy makers do not properly take the idea of ecotourism, some investors started to involve in development of ecotourism in different regions of Ethiopia. Bishangari Eco-Lodge located at Eastern of Langano Lake in Oromia Region and Village Ethiopia located at Afar Region (Bilen) are examples of these private ecotourism developments in Ethiopia (Theodros Atlabachew, 2004). In past few years, LUPO aims to create alternative income generating means such as ecotourism to reduce the pressure on the natural resources of land through conducting a pre-feasibility study of proposed areas on the potentials of ecotourism (Scwenk, 2002).

2.4.3. Ecotourism and protected areas

Today protected areas are aimed at conserving biodiversity and large scale of natural ecosystems. However, these protected areas are increasingly facing a number of challenges (Wearing and Neil, 1999).Protected areas are important destinations for a growing tourism like ecotourism given that it uses diverse nature, landscapes and biodiversity as major attractions. In these protected areas, there might be a potential threat to, and an opportunity for conservation of natural resources. If properly planned and managed ecotourism may minimize the environmental impacts while significantly contributes to the protected areas (Strasdas, 2002).

Ecotourism introduced in protected areas of some countries to reverse these challenges since ecotourism could have a significant role for conservation of natural resources and the overall development in developing countries. For example, in Namibia the current travel and ecotourism potential contributed 16.0% to Namibia’s GDP, account for 71,800 jobs, which is 17.9% of total employment in Namibia (Louis, 2007).

Okello (2003) showed that the relationship between protected areas and local communities is a key factor in the long- term conservation of the natural resources in and around these protected areas. However, in many cases, the relationship faces conflicts. The perceptions of local towards protected areas are negative. They perceived the protected areas as a burden on their land use. People living near protected areas have subsistence needs that are direct opposition to the needs of the park. Enough attention was not given to the process of involving local people in decision-making and park management activities. On other hand, the conservationist blamed the local people as a major threat to the conservation of the protected area. Therefore, it is necessary to cooperate with local people in order to sustain protected areas through development of ecotourism, which strongly involve the local people in decision-making and benefit sharing.

2.4.4 Ecotourism and Protected Areas In Case Of Ethiopia

In Ethiopia, there are nine protected areas (National Parks), of which only two are gazetted ones, the Semein Mountains National Park and Awash National Park. The other protected areas including the game reserves, sanctuaries, national forest priority areas etc. are not gazetted. The main objectives of these protected areas are to protect natural resources of the country (Shibru Tedla, 1994) but recently most of protected areas of Ethiopia are exposed to severe degradations due to failure of creating alternative options like ecotourism, which are off-farm activities.

Thus, to minimize these problems which expose natural resources to degradations in protected areas, some interventions, which involve ecotourism activities, have been attempted in Adaba -Dodola forest priority area in Bale zone in Oromia regional state. WAJIB which said to be " Waldaa Jirattoota Bosonaa'' in Afan Oromo meaning "forest Dwellers associations" is an example of an outcome of such effort . Incomes obtained by local community from provision of accommodation service to tourists, horse provision and tour guiding which contributes to reduce free livestock grazing and deforestation of protected area (Tsegaye Tadesse,2007).

2.4.5 The impacts of tourism /ecotourism

Generally, tourism can have both positive and negative impacts on economic, cultural and environmental resources depending on circumstances how it is managed (Strasdas, 2002). In other words, tourism causes three major impacts in host societies: economic, cultural or social and environmental impacts. Assessing these impacts whether positive or negative is impossible in the Third World due to difficulties in measurement and a lack of local control over the industry (Lea, 1988). Okello (2003) stated that in areas, where tourism impacts on country and society, there may well be conflicts with competing demands for other sectors of the economy, or with community interests at large. Ecotourism is thus an important concept in tourism development to solve these problems.

2.4.5.1 The negative impacts of tourism

Tourism causes three major negative impacts at tourists' destination areas. These are negative economic impacts, cultural or social impacts and environmental impacts. The negative economic impacts of tourism include the occurrences of leakage, seasonal jobs and import of qualified personnel, the negative cultural impacts of tourism includes: destroying traditional cultures (crime, prostitution, etc) and the negative environmental impacts of tourism includes: pollution and over-consumption of natural resources (e.g. water) and destruction of habitats (Strasdas, 2002).

Moreover, as demands for ecotourism are increasing strongly, the availability of suitable ecotourism sites worldwide is deteriorating, threatening their ecological sustainability. The major reasons for deterioration of ecotourism sites are:

i) Incompatible economic uses of land area for other economic activities such agriculture, industry, mining and urban development,

ii) Inappropriate tourist development and infrastructures necessary to support those development willful destructions of ecotourism by tourists,

iii) Numbers of tourists in excess of carrying capacities and adverse environmental externalities or spillovers which destroy ecotourism resources or assets (Tsidell, 2001).

2.4.5.2 The positive impacts/benefits of tourism

Tourism also causes three major positive impacts at tourists' destination areas. These are positive economic impacts, cultural or social impacts and environmental impacts. The positive economic impacts of tourism includes generating foreign exchange, diversification of the livelihoods creating job opportunities for rural areas and increasing linkages; the positive cultural impacts of tourism includes: promoting modernization and cultural pride of host communities; and the positive environmental impacts of tourism include non-consumptive use of biodiversity. Minimizing environmental impacts and contribution to environmental education and conservation are also positive contribution of tourism(Strasdas, 2002).The other positive impacts of tourism are increasing the linkages between tourism business and local economy (WTO, 2002a) and reducing seasonality in tourism in order to ensure the well-being of employments and to minimize seasonal and casual employments (Tsidell, 2001).

2.5 Tourism/ecotourism and local economic development

The benefits of tourism are usually categorized at two levels: the first is macro and the second is national level. At the first level, tourism is expected to speed economic growth by foreign exchange earnings and an increase in the state revenue. At a second level, it results in improvement of well being of local people in areas through job creation, revenue distribution and balance regional development. (Okello, 2003).

Tourism if is closely linked to rural areas where agricultural activities are habituated and destination areas of tourists. Linking tourism and local agriculture are essential because local agriculture holds a significant potential for achieving pro-poor tourism objectives that will reduce tourism negative impacts and maximizing benefits for the poor. The majority of potential pro-poor tourism beneficiaries subsist from agriculture. (Torres and Momsen, 2004).

Moreover, it could be claimed that the local products of tourist destination areas will complement the major facilities of tourism such as transport, excursions or tours

services and accommodation (WTO, 2002a).The study in China indicated that, the contribution of tourism for the local people indicated by its integration into the local economy through benefiting the people. For example, the case of Suzhou in China showed that, promoting souvenir/ artifact or wok of art or handicraft production is being as means of creating job opportunities and incomes in tourist destination areas (Xu and Gormsen, 1999).

Especially; linking local agriculture to tourism allows tourist destination areas to retain a greater share of tourism benefits and reduces leakages with respect to foreign imports (Torres and Momsen, 2004).

Conversely, in the absence of well-developed linkages between the external sectors of tourism and the rest of the economy could resulted in a limited development of local economy in the study conducted in Cancun, Mexico during 1997-98 on sixty Cancun hotels. Accordingly, understanding the linkage between tourism developments and local agriculture is very important since farming; fishing and animal husbandry are the principal livelihood strategies for the poor in most developing regions (Torres and Momsen, 2004).

Reducing the effect of seasonality in tourism is the other very important factor since seasonality can affect the tourism industry directly and local economy or the poor people of destination areas indirectly. According to Tsidell (2001), tourism is very seasonal as it is being subject to changes such as fears of political instability. Seasonality in tourism refers fluctuation in income from tourism, fluctuation of employments and fluctuation in volume of tourists.

Increasing length of stay of tourists by creating attractive facilities and promote local tourists to travel in the low season is the alternative to reduce seasonality in tourism. When seasonality is reduced in a significant number for a larger part of the year: the hotels, the tour operators and their employees and the local people of the destination areas are more benefited (WTO, 2002a).Because the poor, in rural areas who depend directly on natural resources or biodiversity can cause severe degradation of natural

resources benefited of by job opportunities of tourism may contributes to sustainable of natural resources like ecotourism or tourism (Brodnig, 2006). According to (WTO, 2002a) indicated that tourism was recognized as one of strategies in contribution in poverty alleviation through maximizing tourism benefits to the poor while simultaneously reducing their negative impacts.

In general, the major functions of tourism in poverty alleviations of local people are creation of job opportunities, generation of income from sales of local goods, sharing of benefits from the local business activities, collective income and infrastructure gains like roads, pipe water, electricity, etc (WTO, 2002a).

2.6. The relationship of tourism with environment

The relationship between tourism and environment includes the biophysical, social, cultural, economic, and political dimensions. The maintenance of a 'good quality' environment for tourists' destination is one of the major aspects of the development of tourism. The quality standard of the environmental resources that attract tourists determines the economic opportunity of tourism. It is evident that the very existence of tourism is unthinkable without a healthy of pleasant environment, with well preserved landscape and harmony between people and nature' (Holden, 2003).

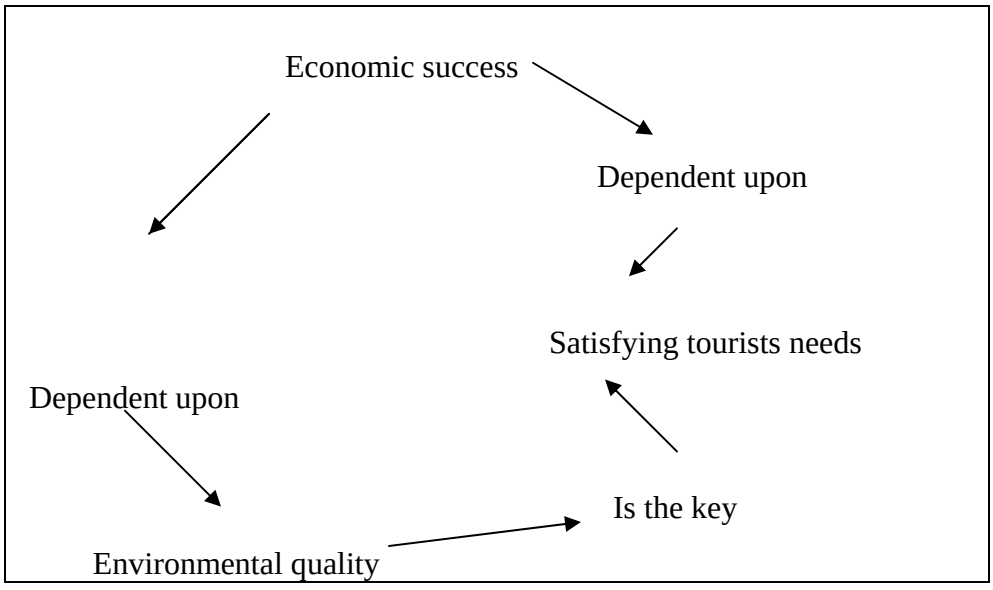

Figure 1: Relationship between the natural environment, the local economy, and tourism (Holden, 2003).

Figure 1 indicates the environmental quality contributes to attract tourists and development of tourism. On, contrary as the environmental quality deteriorates, the number of tourists gets decrease and the expected income from the tourists might be reduced. The interests of the local or destination community also will ensure the preserving of landscape and providing stewardship of the environment if tourism contributes to development of local economy (Holden, 2003).

WTO envisaged that the livelihood of poor people (local people) and their environments are the major focuses that need sustainable tourism or ecotourism it recognizes the ecological, social and economic aspects of the environment (WTO 2002a).

The contribution of ecotourism is not only to the protection of valuable natural resources of the environment but also benefiting the local population and national economy. For example in Uganda, ecotourism is contributing towards the conservation of mountain gorillas and other species in different areas or environments as well as improving the well being of the local population who live near the park (Okello, 2003).

2.7 Government policies or Strategies towards natural resources conservation and tourism development

Governments of many countries forwarded their own policies and strategies towards management of natural resources and tourism development. For example, The Natural Environment Management policy of Uganda encouraged the development of ecotourism in protected areas that focused on business orientation and conservation objectives (Okello, 2003).In Nepal the government handing back some of the state owned forests to local communities for community management as beginning steps of strategies for sustainable natural resources management (Jodha, 1995).

Likewise, even though there was no proper policy of tourism in Ethiopia, environmental sustainability is already incorporated in national economic policy and strategy in order to encourage off-farm and on-farm income generation. Thus, aimed at poverty alleviation and promoting the community participation in management of natural resources. Even though there are natural and cultural attractions contributing to development of tourism industry, these resources are under threats (EPA, 1997). The absence of proper management of ecotourism resources might contribute to these threats of cultural, historical and natural attractions.

In fact, according to description of FNG (2005) Proclamation No.471/2004, Article 30 sub article 1, the MoCT of Ethiopia is responsible to encourage the identification or assessment of potentials of tourism or attractions and to ensure the local communities to be benefited from tourism.

2.8 Case studies and experiences about sustainable tourism or ecotourism

There are different cases studies and experience in different countries regarding to sustainable tourism or ecotourism (WTO, 2002a). For example in Skoyo-Krabathang at Northern Pakistan by reserving up 80 per cent of the trophy hunting earnings to Community-based Trophy Hunting programmes (CTHP), the world's most prized trophy animals like Markhor which were being threatened by habitat encroachment were being saved (Brodnig, 2006). Theodros Atlabachew (2002) stated that in Amboseli National Park in Kenya the income obtained from ecotourism is 18-20 times more than the income from the agricultural activities.

The case study for establishing a national park in Madagascar in rural areas also indicated the possibility of determining willingness to accept compensation (WTAC) of residents in Park using CVM and the possibilities of conserving sensitive or fragile areas of the park with satisfying the needs of residents or local communities of the park(Dixon, 1994).

In general the case studies indicated that different countries attempts to adopt ecotourism or sustainable tourism by sustainable management of natural resources and benefit tourist destination communities in addition to satisfy the needs of tourists.

CHAPTER 3: MATERİALS AND METHODS

3.1. Description of the study area

3.1.1 Location

Abijata -Shala Lakes National Park is located about some 200 km from Addis Ababa at N 7^0 30' E 38^0 30' in Ethiopian Central Rift valley and it is mainly flat, but it is with elevation ranging about 1540m to 2075m above sea level. The park covers the total area of 887 km^2 out of which 405 km^2 is land and 482 km^2 is water (Mohammed Abdi, 1993).The Abijata- Shala lakes National Park has been established predominantly for a bird sanctuary in 1971 (EWNHS, 1996). Study area is presented in Figure 2.

3.1.2 Geology

The rift floor is occupied by a series of large lakes fed by perennial rivers originating from adjacent/bordered highlands both to the east and west directions (Tenalem Ayenew, 2001). Moreover, geological records from the area showed that there have been great changes the sizes of the lakes in the past years and other features of the park such as hot springs, cliffs, and lava cave.

3.1.3 Soils

The soil of study area is often alluvial and very fine in nature, and is very susceptible to both wind and water erosion (Tolcha Regassa, 2005) and it is maintained by the acacia-euphorbia woodland around the lakes (EWNHS, 1996).

3.1.4 Climate

The climate of ASLNP is favorable for visitors and residents. Rainfalls period is between March, April, June, and September, averaging 500 mm (CPI, 2000). Average annual temperature is 20.1^0C; with a mean maximum of 26.6^0C and mean minimum of 13.5^0C (EWNHS, 1996).

3.1.5 Flora and fauna

The acacia-euphorbia woodland of the park ecosystem maintains the highly fragile soil of the area (EWNHS, 1996).According to record document of ASLNP office the major attractive fauna are bird species (Fekadu Tefera and Rezenom Almaw,2002). About 300 species of birds were recorded in ASLNP (Shibru Tedla, 1994).

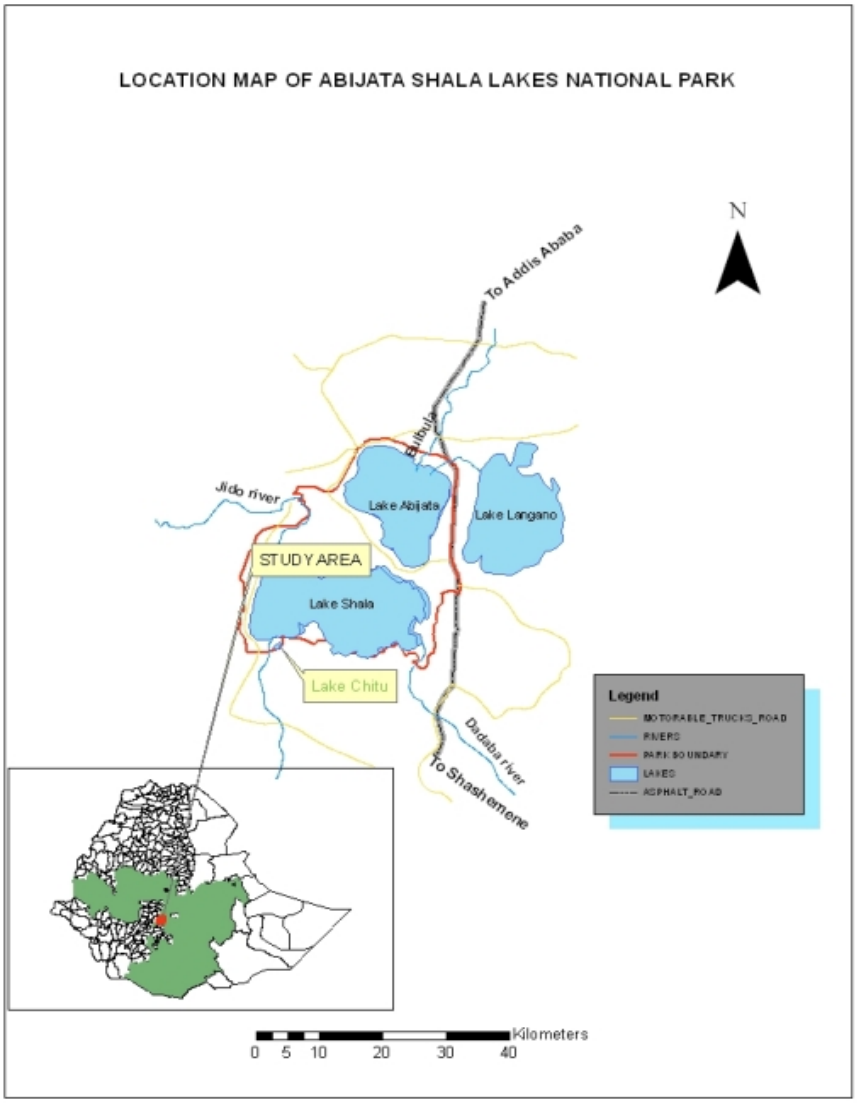

Figure 2: Map of Abijata Shala Lakes National Park and Surrounding areas or study area

3.1.6 Socio-economic

According to Feyera Senbeta and Fekedu Tefera (2001) there are about 24,785 of a total population of which 3000 numbered households in ASLNP (Annex 3). Thereafter, based on population projection assumed by CSA (1998) the rural growth rate at medium variant for Oromia region was 2.6% for 2000-2005 and 2.4% for 2005-2010. The total population of the ASLNP estimated to about 26,134.27 and based on previous trends of household members and present sampled households for this study 4355.71 households in which each household owned at an average six members.

Based on samples which were taken during field survey each household has on the average about 2.6 ha farmland and the total households of estimated of 4355.71 could owned about, 11,324.84 ha farmland that covered the park. On other hand; based on samples, which were taken during field survey each household has on average about 6 cattle, 7 goats, 2 sheep and 2 equines respectively which estimated to 73827.07 total livestock owned by 4355.71 of total households.

Pastorals and subsistence farming are mainly dominating the socio-economic conditions in ASLNP and the surrounding areas (Feyera Senbeta and Fekedu Tefera, 2001).Being among the major socio-economic problems, highly increasing size of population and livestock density, could account for the deterioration of the general situation of ASLNP. The park is unsuitable for agriculture and heavy grazing but the local people use it for these purposes (EWNHS, 1996).

3.1.7 Human resource development of ASLNP

The current records from ASLNP indicated 27 employee of the park. The numbers of the park employee were decreasing from year to year. For example, the park documentation Fekedu Tefera and Rezenom Alamew (2002) indicated that the

numbers of park employee were 33, but during study period, the numbers of employees of the park recorded were 27. Moreover, of these 27 employees, 21 are from the local people (Table 5).

Table 5: Summary of employee or human resources of ASNP

No.	Job title	Quantity
1.	Park warden	1
2.	Wildlife expert	1
3.	Accountant	1
4.	Store man	1
5	Fee collectors	1
6.	Game guards	16
7.	Driver	2
8.	Office cleaner	1
9.	Casher	1
10.	Archiver/officer	1
11.	Purchaser	1
Total		27

Note: Staff members of the headquarter office of ASLNP are 9 in numbers whereas the remaining are in different sites of campsites or out posts.

3.2 Methodology

The major activities of the study were started by conducting a preliminary reconnaissance in Central Ethiopia Rift valley (CERV) in and around Abijata-Shala Lakes National Park. After a preliminary reconnaissance was done, sampling design for household survey, hotels or loges, tourists' survey and other concerned stakeholders were undertaken.

3.2.1 Sampling Design for Household Survey

Structured and semi- structured interviews or questionnaires were designed by researcher and distributed by trained interviewers for conducting interviewing the interviewees of sampled households from local communities and other concerned stakeholders. The respondents from households of local communities were selected by systematic sampling from five Kebeles or peasant associations in the ASLNP whereas these Kebeles were selected by purposive sampling from 18 Kebeles or

peasant associations in and at buffer zones of ASLNP (Annex 10 and 11). The application of purposive sampling method based on approach of Sarantakos (1988).

Before the systematic sampling for households from local communities had been taken place, the sampling fraction, the household population as target population and the estimate households as sample size were determined. The sampling fraction method which symbolized by k, the samples were drawn from a sampling frame on the basis of the sampling fraction that is equal to N/n, where N is the number of households in the target population i.e. total households and n is the number of households as sample. k= N/n .Where k= sampling fraction, N= target population and n=sample size

Accordingly, the target populations, i.e., the households were 1334 and the intended sample size of households were 168. Additionally, the sampling fraction was 8 (i.e. 1334/168≈8).Because of systematic sampling, households were selected from a list in a certain order in which every 8th person were chosen for the sample .The target population was 1334 and the intended samples of households were 168. The selection of households by systematic sampling was based on approach of Sarantakos (1988).The number of sampled households included for collecting information were determined using the table developed Carvaliho (1984, as cited in Zelelem (2005).

Thereafter, one hundred sixty eight respondent households who lived in and in vicinity of the park from each selected peasant associations were sampled using systematic sampling. However, finally 164 or 97.6% of sampled households responded the interview questionnaires whereas it was impossible to obtain the remaining four.

On the other hand, as part of socio-economic survey based on households responses regarding to annual grain product as indirect willing to Accept Compensation (WTAC) estimate Contingent Valuation Method (CVM) was used as alternative options to reserve sensitive areas of ASLNP.

3.2.2 Sampling Design for Hotels or Loges

Because of the scope of study and limitations of time, only four hotels located in vicinity areas along the shore of western and eastern Langano Lake were selected for the case of this study by purposive sampling method Sarantakos (1988). Thereafter, the designed questionnaires were distributed for each hotel by interviewers and their responses were recorded. Depending on relative number of tourists received by these hotels or lodges and beds offered, Langno Wabe Shabelle Resort Hotel and Langano Bekele Mola Hotel were considered as mass tourist receivers at western Lake Langano and the remaining two are Bishan-Gari Eco-Lodge and Wenny Lodge were considered as receivers of low tourist receivers at eastern Lake Langano.

3.2.3 Sampling Design for tourists Survey

As part of the assessment of ecotourism potentials of ASLNP and surroundings, Contingent Value Method (CVM) was conducted to estimate Willingness to Pay (WTP) the entrance fee for ASLNP. This method was employed from Dixon (1994). In September 2007, during tourists survey, CVM questionnaire were distributed to 58 respondents or international tourists who were randomly selected from general population or total tourists of September 2007 of 290. These respondents were about 20% of population of tourists visiting ASLNP. The questionnaires were distributed to the tourists while they entered the park at gate and their responses were collected while their leaving the park. The number of sampled tourists included for collecting information were determined using the table developed Carvaliho (1984, as cited in Zelelem (2005).

3.2.4 Sampling Design for other concerned stakeholders

Survey questionnaires were also used to collect information from ASLNP office, Oromia Agricultural and Rural Development Bureau, Oromia Cultural and Tourism Bureau, Ministry of Culture and Tourism of Federal Government of Ethiopia, customers (tourists), from hotel or eco-loge, from local NGO and persons from

cultural handicraft association were interviewed or selected by purposive sampling to get related information.

3.3 Data Analysis

Descriptive statistics was used to analyze responses to the questionnaires and interviews to come up with results and discussions. Contingent valuation method was also employed (Dixon, 1994) to analyze willingness to pay of tourists for entrance fee of ASLNP.

CHAPTER 4: RESULTS AND DISCUSSION

4.1. Tourists attractions and amenities in and around ASLNP

The survey of natural and cultural ecotourism resources indicated that natural and cultural attractions or resources are the main ecotourism potentials in ASLNP. These resources include bird, scenery of landscape, hot springs, lake beaches, attractive culture, local handicrafts, indigenous knowledge and accommodation facilities at nearby areas. Therefore, it is possible to say that ASLNP is where ecotourism business can operate (Table 6 and Figure 3).

Table 6 presents different types of ecotourism potentials indifferent sites of ASLNP. For example, Bulbula, Hora-Kelo and Haroressa are sites for bird watching at shores of Lake Abijata and Gike Shala and Hora-Chitu are sites for bird watching at shores of Lake Shala and Lake Chitu respectively. Doddota Viewpoint located between Lake Abijata and Lake Shala used for landscape viewing and sunset viewing. Some hot springs are located at Eastern of Lake Shala and many local people for theraptic purposes use them besides they used to attract tourists. Village women at the vicinity of headquarter of the park offers local handicrafts to the tourists.

Table 6: Locations and major tourist attractions in ASLNP

No.	**Location site in ASLNP**	**Tourist Attractions**
1.	Hora -Kelo /Bulbula	Bird watching
2,	Dallu Harangama	Grave Heritage at Vicinity of Asphalt road
3.	Headquarter and vicinity area	Ostrich farm Some mammal species at Ostrich farm Some mammal species e.g. Grants Gazelle, warthogs. Local handicrafts/products, Guiding services
4.	Haroressa area	Mountaineering , Bird watching
5.	Doddota-Viewpoint	Landscape viewing, sunset viewing
6.	Around Shala Artu, hot spring	Hot springs, Bird watching,, campsite
7.	Muli-Kelo	Bird watching (pelicans), & beauty landscape
8.	Shala Gike	Bird watching, Guest rest house, campsite & Scenery viewing

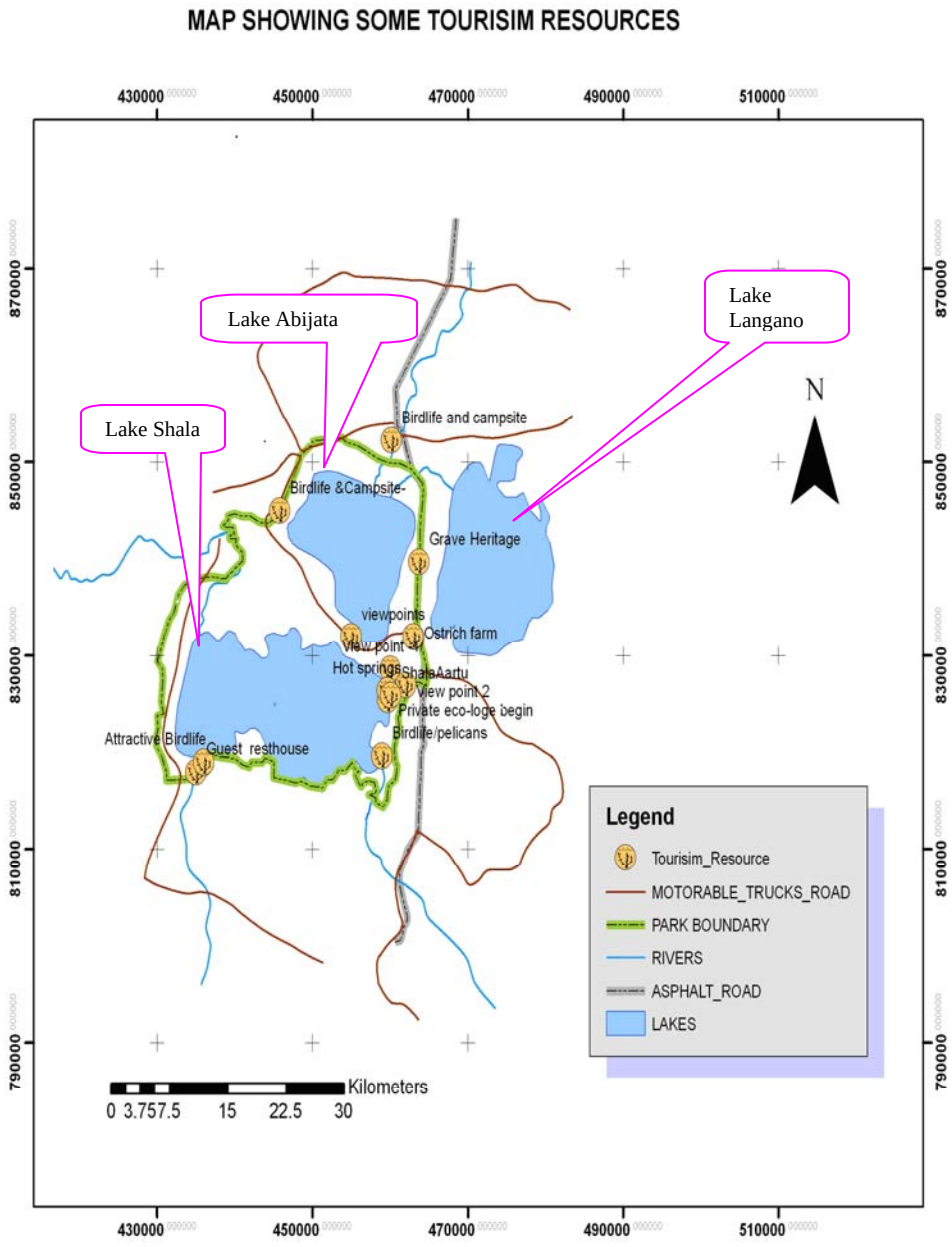

Figure 3 : Map showing some ecotourism resources

In general, as it could be observed from Table 6 and Figure 3 there are ecotourism potentials in and around ASLNP, which can attract tourists and may contribute to conservation of natural if they are developed. Holden (2003) also acknowledged that

the ecotourism resource in protected areas could generate more revenues, which could benefit the local people and contributed to conservation of protected areas.

4.1.1 Wildlife

4.1.1.1 Rich diversity of birds

Responses of experts of natural resources of Oromia Bureau of Agriculture and Rural Development, ASLNP headquarter office, Ministry of Culture and Tourism of Federal Ethiopia including Oromia Culture and Tourism Bureau indicated presence of numerous species of birds, attractive lakes, hot springs and scenery of landscapes, which attract tourists (Annex 4). In addition, Shibru Tedla (1994) stated that about 300 species of birds residing in ASLNP.

During assessment of ecotourism resources, the responses of sample households and warden of the park indicated the disappearances of birds like Great White Pelicans from Lake Abijata. Their responses also indicated that disturbed habitat by interferences of human beings such as soda ash extractions could be reasons for disappearances Great White Pelicans from Lake Abijata. The study of Mohammed Abdi (1993) also reported the disappearance of Great White Pelican from the Lake Abijata. EWNHS (1996) reported that he reason for disappearances of Great White Pelicans from Lake Abijata could be due to disturbed habitat and frequent fish kill in Lake Abijata. Recently Great White Pelicans were observed at Lake Shala islands in limited numbers (CPI, 2000).

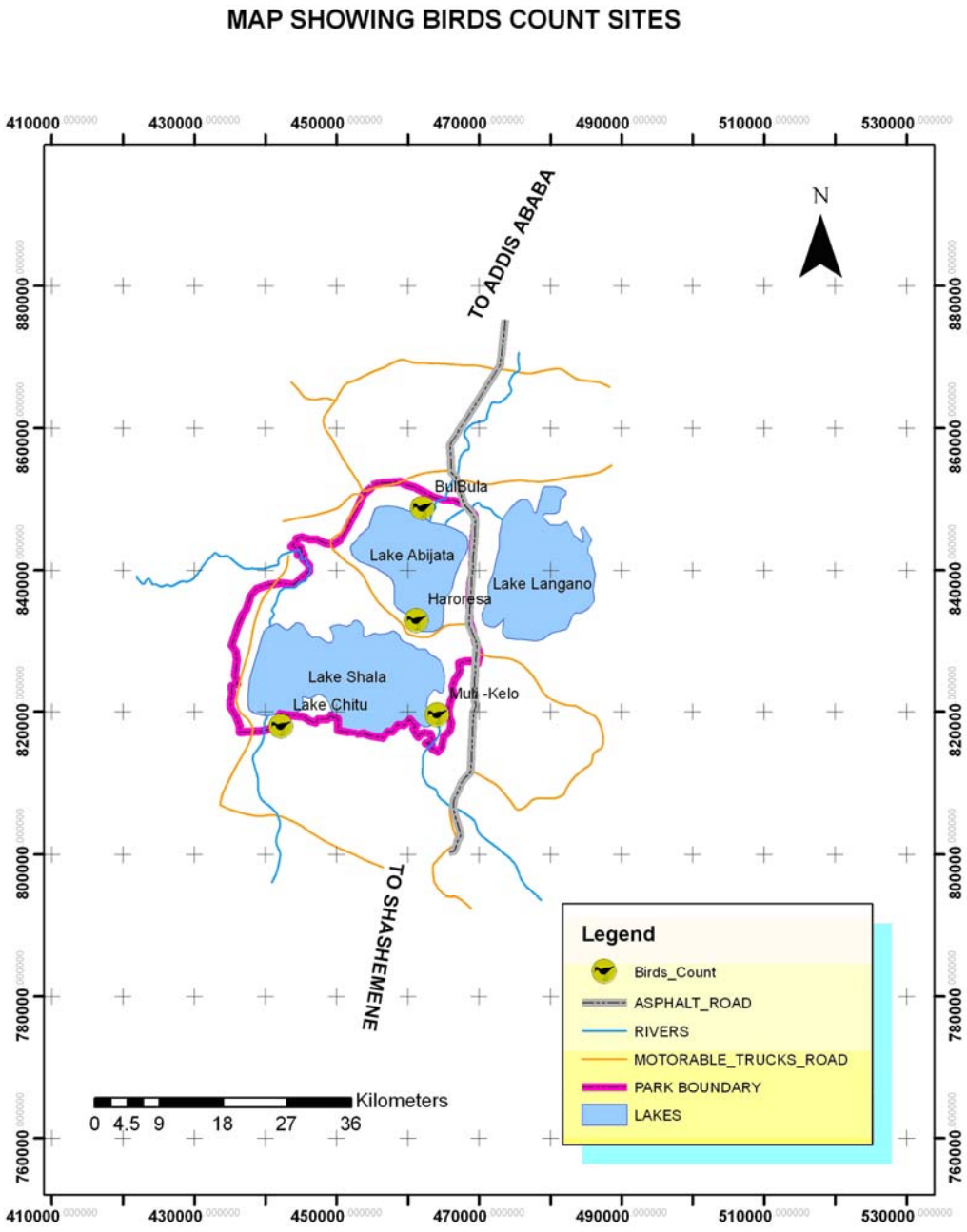

Figure 4: Map showing bird concentration sites

As it could be observed from Figure 4 ,some sites of bird concentrations located around shores of Lake Abijata :Bulbula,Hora Kelo and Haroressa and around shores

of Lake Shala :Muli Kelo and Shala Bala or Gike Shala and Hora-Chitu at Lake Chitu.

Based on information obtained from ASLNP and Mohammed Abdi (1993) study as example there was disappearance of White Pelican from the Lake Abijata but they were observed at Lake Shala in limited numbers.

4.1.1.2. Wildlife (mammals) of ASNP

During the socio-economic survey, the responses of households indicated that the area under the ASLNP was a home for diversified and populated wildlife species. Table 7 presents the responses of sampled households on ecotourism resources including about wildlife species. However, recently due to deforestation their frequency decreased. But as responses of park warden indicated there are some mammals such as Grants Gazelle, warthogs were observed around headquarter of the park and at distant areas from the park headquarter. For example, hare, jackals, Colobus monkeys were observed around southeastern of Shala Lake where Dedeba River enter Lake Shala (Annex 4).

Table 7: Responses of sampled households on ecotourism resources.

RESOURCE TYPE		NO. OF RESPONDENTS	%
Natural ecotourism resources	lakes/water	42	25.61
	birds	30	18.30
	wildlife	24	14.63
	hot springs	4	2.44
	All of theabove	64	39.02
	Total	164	100
Cultural and historical ecotourism resources	local handicrafts	89	54.27
	religious sites	3	1.83
	folklore	36	21.95
	All of the above except local handicrafts	36	21.95
	Total	164	100

4.1.2. Hot springs

Many local people and surrounding areas used hot springs for therapeutic purposes (Figure 5). For example, during this study the numbers of local people using the hot springs from August 15,2007 to August 21,2007, were 553 and they used hot springs for healing illness and for recreational bathing. Local people using Shala hot springs from 15-21/8/2007 are presented in Table 8.

Figure 5: Local people bathing at hot springs of Lake Shala

Table 8: Recorded Local people used the Shala hot springs from 15-21/8/2007**.**

Date	Male	Female	Total
15/8/2007	65	29	94
16/8/2007	58	18	76
17/8/2007	55	47	102
18/8/2007	26	37	63
19/8/2007	79	12	91
20/8/2007	28	21	49
21/8/2007	49	29	78
Total	360	193	553

As responses of the households indicated the peak period for bathing the hot springs are, the months of September and August and sometimes the hot springs are also used for drinking by both humans and cattle. On the other hand, the responses of the households indicated that these local users of hot springs contributed to degradation of Acacia trees around hot springs by using the acacia trees for temporary shelters and

firewoods. Moreover, about 82.21% of respondent tourists of those visited ASLNP were interested in attraction attributes of the hot springs (Annex 12).

4.1.4. Cultural and historical attractions

On the other hand, the field survey or assessment of cultural and historical tourism resources in and around ASLNP showed that there are potentials of handicrafts, tools, story telling, cultural dances etc (Table 6 and Annex 4). Recently, the foundations of Cultural Handicraft Association by village women infront of headquarters of ASLNP serve in offering cultural handicrafts to tourists. Response of chairman of this associaton indicated demands for cultural handicrafts is relatively increasing since 2006. The Cultural Handicraft Association has 10 members of those who are all women from age range of 16 to 45 years. The materials used for making these handicrafts are obtained from surounding non timber forest products and local markets. The present capital of the Cultural Handicraft Association is Eth.Birr 420.

The major constraints according to response of chairman of the association are lack of shop where to sell handicrafts, inadquate funds, lack of skills and problem of communication with tourists, i.e. unable to speak foriegn languge paricularily English. Analysis of literacy level of members of this association indicated that four of the ten members are illiterate whreas the others from grade 2 to grade 10 (Annex 5).

According to WTO (2002a), the local products of tourist destination areas will complement the major facilities of tourism. Therefore, it could be claimed that local handicrafts or products offered by local people to the tourists of ASLNP and surroundings will complement the major facilities of tourism such as transport, excursions /tours and accommodations. According to information obtained from experts of Bureau of Culture and Tourism of Oromia indicated that presence of a huge potential of ecotourism in and around ASLNP were:life style of Oromo people,local handicrafts,tradtion,music,dance,wedding cermony ,ways of conflict resolution by well-organized gada system and etc (Annex 4).

In general, the study indicated that the common complementary products or potentials in and around of ASLNP offered by local people are local handicrafts, story telling by elders, bird watching, , guided walks to look at heritage trails, village and agricultural tours, cultural dances, indigenous conflict resolution by elders, etc. In other words, there is possibility of local people in supporting /promoting development of ecotourism since they have already developed some habits such as selling local handicrafts, story telling, guiding services, etc., to the tourists.

4.1.5. Tourist facilities and services

The information obtained from ASLNP indicated some tourist facilities and services such as main asphalt road on eastern side of ASLNP, 134 km length of track roads in the interior part of ASLNP, mobile networks, guiding services, camping site, guest rest house at South of lake Shala, and view points are offered to the tourists in ASLNP. However, the information of ASLNP also revealed inadequate of tracks, guest rest house, campsites, and other destructed infrastructures since there is non-maintenance of these infrastructures since 1991/92.

As can be observed from Table 9, from four selected hotels or lodges for study, Langano Wabe Shabelle Resort Hotel and Langano Bekele Mola Hotel hotels are relatively large tourists' receivers since they are nearer to the main Asphalt road and they relatively received more tourists and offer more beds than the other two lodges. Figure 6 indicates the location of these hotels or lodges. Nevertheless, the Bishan Gari Lodge and Wenny Lodge might be low tourists receivers since (Tedele Zewdie, 2005) they are relatively far away from the main asphalt in wilderness areas where more diversity of plants and animals are found. Table 9 presents annual tourists' turnover and some facilities offered by Selected 4 hotels/lodges during the period of 2006/07.

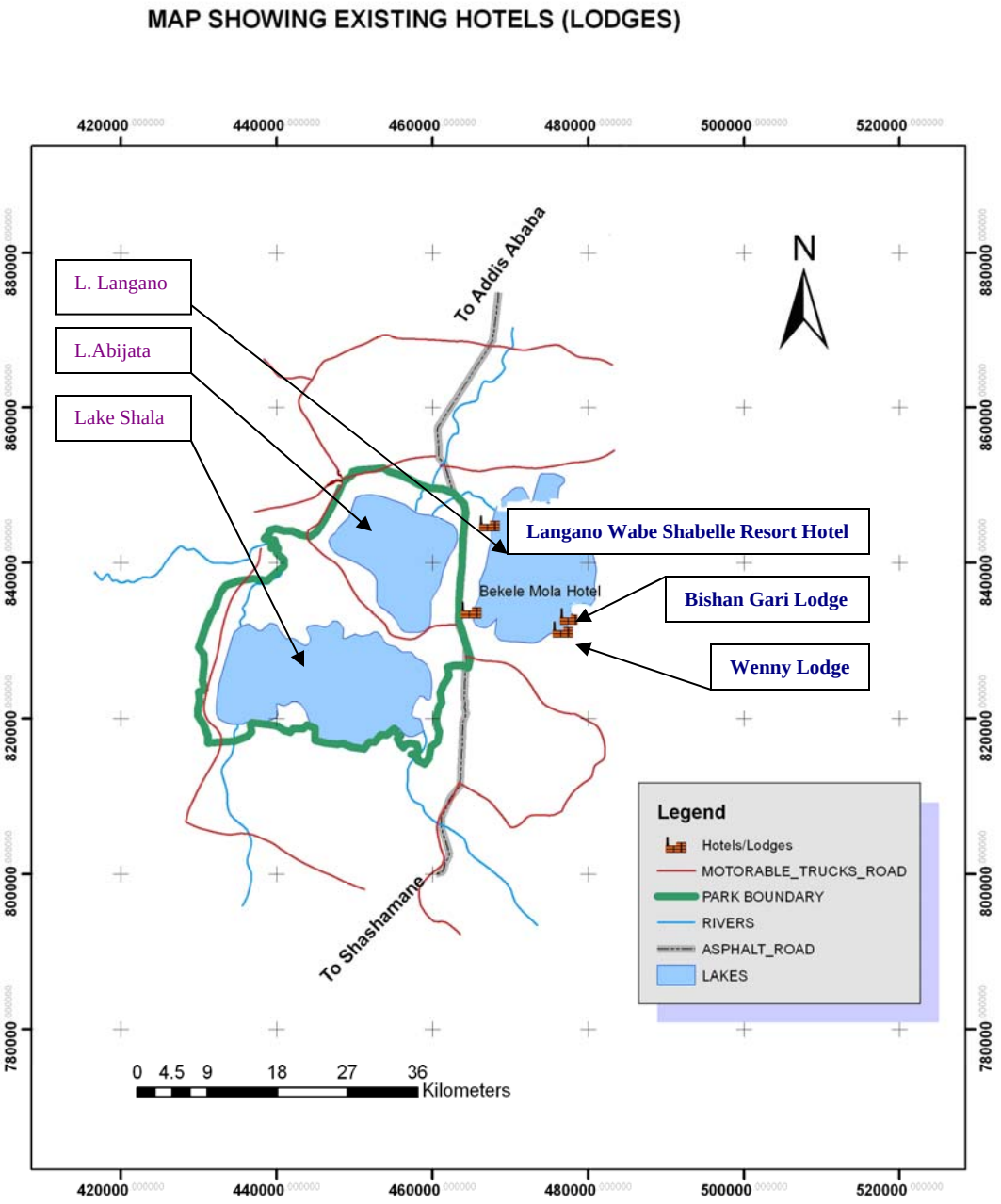

Figure 6 : Map Showing selected hotels or lodges of study

As it could be observed from Table 9 the information from hotels or lodges indicated that Langano Wabe Shabelle Resort Hotel and Langano Bekele Mola Hotel received

about 13,000 and 18,000 customers or tourists annually respectively whereas Bishan-Gari Lodge and Wenny Lodge received about 4500 and 480 customers or tourists annually respectively. On the other hand, Langano Wabe Shabelle Resort Hotel and Langano Bekele Mola Hotel offered 104 and 126 beds respectively whereas Bishan-Gari Lodge and Wenny Lodge offered 48 and 40 beds to the customers.

Table 9: Presents annual tourists turnover and facilities offered by Selected 4 hotels/lodges during the period of 2006/07.

No.	Hotel/ Lodge	Annual tourist arrivals	Distances from main asphalt road in km.	Reasons most tourists visit for	Number of beds offered	Origin of most tourists	Commonly need Heating and light sources
1.	Wabe Shaballe Resort Hotel	13000	3	Recreation or leisure at resort	104	Ethiopia	Hydro Electricity
2.	Bishan-Gari Ecolodge	4500	20	Nature adventuring	48	Foreign	Biogas and solar energy
3.	Wenny Lodge	480	20	Nature adventuring	40	Foreign	Diesel generator, charcoal
4.	Langano Bekele Mola Hotel	18000	3	Recreation or leisure At resort	126	Ethiopia	Hydro Electricity

As could be observed from Table 9 Bishan-Gari Lodge is more environmental friendly than the other lodges or hotels since it uses biogas and solar energy cells for its heating and light sources .But, the other hotels or lodges used charcoal and power diesel plants or fossil fuels which might encourage degradations of trees and increases pollution of the areas .

Furthermore, the information obtained from four hotels or lodges indicated the occurrences of seasonality and leakages in their tourism, which might be indicators of

negative impacts of tourism (Annex 14). The occurrences of seasonality was due fluctuation of tourists coming to these hotels or lodges seasonally.
The creation of leakages indicated purchasing of almost all the raw materials required for hotels or lodges from urban centers such as Addis Ababa rather than from surrounding local farmers or local markets. According to WTO (2002a) and Strasdas, (2002) stated that leakages are marked by importing goods and services, the outflow of foreign exchanges, etc. which reduces the benefits of the local communities.

On contrary, these hotels benefited the local communities through creation of job opportunities. Out of the total employee of the four hotels/lodges, 65 percent of them have been employed from local community (Table 10). Moreover, these lodges or hotels offers different types of recreational activities such as swimming, other recreational activities for tourists who are interested in recreational resorts and nature adventuring.

The analysis of supply-side tourism of four selected hotels indicated about 65 per cent of total employees is employed from local people. Strasdas (2002) and WTO (2002a) stated that one of the positive aspect of ecotourism/tourism is creating job opportunities to the local people. In addition to this, Theodros Atlabachew (2002) argued that creating job opportunities or employing local people in destination areas contributes to poverty reduction through creating income generations. Employment of local communities in the four selected hotels/eco-lodges nearer to ASLNP was presented in Table 10.

Table 10: Employment of Local people in the hotels or lodges near to ASLNP

Hotel/loge/ resort	Form of ownership	Hotel beds	Hotel employees				
			Permanent	Temporary	Total	Employee of local people	% of local employee
Langno Wabe Shbelle Resort Hotel	State owned hotels	104	56	7	63	57	90
Bishan Gari Lodge	Private Limited Company	48	38	2	40	38	95
Wenny Lodge	Sole Ownership	40	18	8	26	18	69
Langano Bekele Mola Hotel	Sole Ownership	126	18	54	72	18	25
Total		318	130	71	201	131	

As could be observed from the above Table 10 that 65 per cent of the employees were recruited from the local areas and 35 per cent of the employees were temporary or seasonal.

The responses from hotels/lodges managers confirmed the presence of temporary employee that may indicate that seasonal tourism activities in these hotels which emanated from seasonal influx of tourists to the hotels or surrounding areas. According to Tsidell (2001), tourism is very seasonal and it increases unemployment of destination areas in addition to increasing fluctuations of tourism income.

Therefore, it is possible to conclude that the occurrences of seasonality in tourism activities of these four hotels/lodges might expose some local people to the problem of unemployment, which in turn affects the natural resources or ecotourism resources. This is because of temporary employments or unemployment could shift to depend on natural resources of the park, which might be lead to degradation of these resources.

As it can also observed from Table 10 the government owns Langno Wabe Shabelle Resort Hotel whereas the rest are owned by private sectors. The heating and light sources for these hotels or lodges are: hydroelectricity, disel-power plants,bio-gas, and solar energy. Even they also used fuel wood and charcoal for their heating sources. But, as Paola and Getahun Demissie (1979) stated that there is large potential of geothermic energy inaddition to solar energy which can be as alternative sources of energy and drinking water in Ethiopia rift valley areas including Lake Shala and Laka Langano areas for further utilization.

4.2. Major Management Problems on Natural Resources in and Around ASLNP

The major problems on the management of natural resources of the in ASLNP are:deforestation, expansion of farming, overgrazing and over extraction of water including conflicts between the park management and local communities. These problems results in soil erosion, vegetation degradation, wildlife depletion, fish reduction and associated factors. The responses of sampled households about management problems of the ASLNP are presented in Table 11.

Table 11: Management problems of ASLNP

No.	Causes of natural resources degradation	Respondents	%
1.	Deforestation	75	45.7
2.	Farming	45	27.4
3.	Overgrazing	35	21.4
4.	Over extraction of water	9	5.5
Total		164	100

Accordingly, responses of respondents during households or socio-economic survey relating to management or conservation problems of natural resources of ASLNP indicated that 45.7%, 27.4%, 21.1% and 5% respondents responded that deforestation, expansion of farming, overgrazing and over extraction of water respectively (Table 11) are the major causes of degradation of natural resources in

ASLNP. On the other hand, 34.8%, 29.3%, 11.6% and 4.3% respondents also responded that soil erosion, vegetation degradation, wildlife depletion, and fish reduction respectively (Table 12) are the effects of these above causes.

Table 12: Effects of degradation of natural resources

No.	Effects of degradation of natural resources	Respondents	%
1.	Soil erosion	57	34.8
2.	Vegetation degradation	48	29.3
3.	Fish depletion	19	11.6
4.	Wildlife depletion	7	4.3
Total		164	100

The respondents of the study perceived that the management problems on natural resources led to severe degradations that can affect the whole ecosystems of the park and the tourists' attraction quality of ASLNP.

For example, estimation based on responses of total sampled household indicated that the recent expansion of farmland and uncontrolled free grazing might be the main management problems of the park, which exposes natural resources for severe degradation. Even when only farmlands (Annex 6) used by them are extrapolated to the total projected households (Section 3.1) of the park over total land area of the park which is 405 km^2 or 40500 ha (Mohammed Abdi, 1993), the park covered by about 11, 324.84 ha of farmland. From this estimation, large part of the park was devastated by expansion of farmlands in addition to other factors such as free grazing.

4.3. Socio-economic conditions of local communities around Abijata-Shala Lakes National Park

4.3.1.Household lıvelıhood resources

According to the respondents sampled hopuseholds most of them were engaged in mixed farming depend only on farming and livestocks production leaving no scope for other livelihood options. The major crop cultivated is maize with the production potentialof about 1921 Quintals and 11.71 Quintals on average per households in 2006/07. The farm land and grazing land used by the respondents were 213.2 ha and 146 ha respectively (Annex 6).The estimated livestock owned by sample households were 984 cattle, 1148 goats, 328 sheep and 328 equines and in total 2788 livestocks (Annex 7).

4.3.2. Livelihood linkages of the local people to the ASLNP

As it could be observed in Table 13 below, households' responses confirmed that farming land, grazing land, fuel- wood and constructions materials are the necessity resources by which the livelihood of the local people linked to the park. Tesfaye Hundessa (1997) confirmed that the Ethiopian rural poor depend on natural resources in reposes of their basic needs. Shibru Tedla (1994) also stated that the local people in and surrounding the ASLNP use grazing land, cut trees and farming lands of the park for sources of their livelihood . Therefore, it is possible to conclude that the livelihoods of local communities are closely related to the natural resources of ASLNP. The major lists of natural resources by which the livelihoods of households linked with ASLNP (Table 13).

Table 13: Responses indicated resources by which livelihoods of households linked with park

No.	Resources	Respondents	Percentage of respondents
1	Farming land	68	41.5
2	Grazing land	46	28
3	Fuel- wood	34	20.7
4	Constructions materials	16	9.8
Total	-	164	100

4.3.3 Major Problems of the the local people and status of thier social services related to management of natural resources

4.3.3.1. Major Problems of the the local people

According to the respondents besides management problems on natural resources, lack of drinking water, food insecurity, limited livelihood and inadequate income are the major problems of local communities in and around the park (Table 14).

Table 14: Major problems of sampled households

No.	Problems	Frquency	percent
1.	scarcity of drinking water	86	52.4
2.	Food shortage	26	15.9
3.	Lack of diversified likelihood	24	14.6
4.	Lack of income	2	1.2
	Total	164	100

These problems of local people are emanated from socio-economic conditions and contributed to increase poverty and consequently can affect the natural resources of study area since local people entirely depend on these resources.

4.3.3.2. Status of social services of local people in and around ASLNP

Based on responses obtained from sample households and secondary data from differnt offices of Arsi-Nagale Woreda in where large area park, there is no sufficient social services for local communties living in and around ASLNP (Table 15).Among social service there is no water supply for drınkıng in ASLNP and in very vicinity areas of the park which is a serious problem for the local communities and other related residents of the park including wardens and park scouts.

Table 15: A summary of social services in and around ASLNP

No.	Peasant Association	Telecommunication	Health service	Electricity	Water Supply
1.	Muli Arjo	0	0	0	0
2.	Shala Bila	1	0	0	0
3.	Gale Kelo	1		1	0
4.	Dekka Harangama	1	1	0	0
5.	Alge Dilbeto	0	0	0	0

Consequently, these problems may affect the local people and made them to be exposed to extreme poverty, which led to degradations of natural resources. According to Brodnig (2006) due to poverty, the poor in rural areas depend directly on natural resources, which might lead to loss of natural resources.

4.4. Alternative options or diversified livelihoods

Table 16: Some of diversified livelihoods or ecotourism activites indicated by sample households.

Responses	Guiding		Local transport			Local drinks		Local foods		Local recreational activities		Handicrafts		Cultural shows (eg.dance, story tellings)	
	Frequency		percent	Frequency	percent	Frequency	percent	Frequency	percent	Frequency	percent	Frequency	percent	Frequency	percent
yes	87		53	93	57	60	37	148	90.2	98	60	162	98.8	104	63.4
No	77		47	71	43	84	63	16	8.8	56	40	2	2	62	36.6
Total	164		100	164	100	164	100	164	100	164	100	164	100	164	100

As it coud be observed from Table 16 the analysis of responses of sampled households indicated the possibilities of some income generating alternatives or ecotourism potentials for creating divesified livelihoods.Table16 presents the diversified livelihoods or ecotourism potentials which were indicated by sample households of local people during interview has been going on in and around ASLNP. On the other hand,based on analysis of responses of sampled households 37.2% of were expressed their intrest if opprtunity of diversified livelihood or ecotourism activitites are created (Annex 8). The results of this findings give clues to say that this possibilities can reduce the present degradations of attractive natural resources of the park.In other words, there are many possibilities for local people to obtain other addional diversified livelihoods that could help to reduce expansion of farm land ,overgrazing and other degradation factors.

The informal discussion with sampled households during interviews showed that honey production along Eastern and Southern edge of Lake Shala and selling of

ripened fruits of Opuntia spp. to be eaten at Sothern of Lake Shala will be the remaining alternative options for local people.

The issue to be noticed that ecotourism activities cannot be separated from existing local activities or agriculture. As Torres and Momsen (2004) acknowledged that, the production of agriculture or farming for tourism shows an opportunity to build on the existing skills of the poor with out requiring a major shift in economic livelihood strategy, lifestyle and tradition. The major reason why linking tourism and local agriculture is due to the majority of potential pro-poor tourism beneficiaries subsist from agriculture. Therefore, agriculture is a significant potential for achieving pro-poor tourism by reducing impacts and maximizing benefits for the poor.

Torres and Momsen (2004) as mentioned above, this study revealed the possibilities of creating diversified livelihood or potentials for ecotourism development in addition to linking it with existing activities of local communities or agricultural activities.

Moreover, based on analysis of annual maize production of 2006/07 of sample households based on approach used in Madagascar to establish park (Dixon, 1994) willingness to accept compensation (WTAC) it is possible to save sensitive areas of the ASLNP. Even though willingness to accept compensation (WTAC) to give up traditional extractive forestry uses of the local people in ASLNP, was not determined directly, based on the estimated yearly maize products of 2006/07 (Table 18) from total of 213.2 hectares of farm land (Annex 6) about 11.71 quintals on average per household were obtained from sample households. This might be indirect estimates of local people' (WTAC), for households of ASLNP.

Table 17: Maize production of sampled households in 2006/07 production year

Total households(number)	Total maize production (Quintals)	Mean maize production (Quintals)	Minimum Maize production (Quintals)	Maximum Maize production (Quintals)
164	1921	11.71	1	40

Therefore, the responses of sample households indirectly indicated that if on average a compensation of about 11.71 quintals or 1171kg of maize per year per households would make the respondents as well off/wealthy with ASLNP as without it. when local people obtained relative equivalent benefit to what produced by them annually using WTAC, ecological sensitive areas or fragile areas of the park could be reserved or free from human or resident interventions. The relevance of maize production by sampled households may indicate estimated benefits obtained by farmers from land-devastated land of the park by farming and some clues for solutions to save fragile ecosystems of the park

4.5. The status of tourists/numbers and income from tourism in ASLNP

4.5.1. The status tourists/numbers of ASLNP

The analysis based on the records from headquarters of park office in the past 11 years (1996 to 2006), ındıcated that the tourists of ASLNP were Ethiopians,resident foreigners , international tourists and students or resarchers in total figured 51724. Table 19 summarizes of tourists' types and numbers of ASLNP in the past 11 years, from 1996 to 2006. So, as it could be oberverd from Table 19, the Ethipopian tourists or visitors covered the largest share (40.32%) whereas the resident foreigners covered the least share (14.02%) of those visited ASLNP in the past 11 years.

Table 18: Summary of visitors' types and numbers of ASLNP from 1996 to 2006.

Year in G.C	Ethiopians	Resident Foreigners	Tourists	Students/ Education	Total customers or visitors	Total cars	Revenue collecd (in Birr)
1996	593	87	229	430	1339	1339	8456
1997	2027	641	709	609	3986	3986	68524
1998	1620	800	1145	220	3785	3855	94263
1999	1208	509	386	466	2569	2570	60739
2000	1837	785	930	392	3944	3944	81800
2001	1912	741	851	842	4346	4346	77609
2002	2298	681	1387	291	4657	4657	102941
2003	1934	515	1697	535	4681	4681	115354
2004	2346	725	2101	1200	6372	6372	147090
2005	2885	907	2900	1652	8344	6692	197605
2006	2194	860	2995	1652	7701	7705	195062
Total	20854	7251	15330	8289	51724	50147	1149443
Percent	40.31	14.02	29.64	16.03	100	-	-

Source: Adopted from ASLNP Headqurter of ASLNP Office

When data of tourists of 1996 to 2006 were analysed, a total of 43,435 paying cutomers and 8289 not paying customers or students visited the park.Based on records of the past 11 years.

On the other hand, responses of 4 hotels manager nearby ASLNP also indicated that recreational resorts and nature adventuring are major purposes of tourists for visiting the areas and the average of tourist stay is 2.25 days (Table 19).The responses of the selected hotel managers indicated that increasing tourist stay days could increase expenditures of tourists which increase the income of hotels or managers and indirectly increase the job opportunities for local people .Their responses also revealed that the staying days of tourists depend on quality of attractions, tourist facilities and services. WTO (2002c) confirmed that creating attractive facilities for

tourists could increase stay days of tourists for larger part of the year, consequently hotels, tour operators, the employee and local people of destination areas or the poor people more benefited.

Table 19: Summary of average number tourists staying days at each four selected hotels nearby ASLNP

No.	Hotel/Lodge	Av.No. of days Tourists stay
1.	Wabe Shabale Resort Hotel	2
2.	BishanGari Eco-Lodge	4
3.	Wenny Lodge	1
4.	Langano Bekele Mola Hotel	2
Average(Av.)		2.25

4.5.2.Income from tourism in ASLNP

Income generatd from visitors of ASLNP was analyzed by collecting information on tourists from records of the park .This analysed or calculated income was entirely entrance fee for the park.But there are also a few addtional income which is not being calculated and could be obtained from tourists by guiding services,selling handicrafts which benefits park scouts and local people repectively. Because the tourists can spend more expenses for various recreational and other purposes outside and inside the park, extrapolating of all expenditures of tourists might be beyond the scope of this research. But the income obtained from entrance fee of the park in the past 11 years from 43,435 paying cutomers was estimated to be Ethiopian Birr 1,149,443 as indicated in Table 18.

Analysis of current customers and income of ASLNP from Otober, 2006 up to September, 2007 indicated that 4758 paying customers visited the park.The income obtained from entrance fee of the park from these customers or visitors was estimated to be Ethiopian Birr 20,270.The number of customers or visitors and revenue collected from Otober,2006 to September,2007 in the ASLNP is presented in Annex 9.

4.5.3. The status of tourist facilities and services or attractions in relation to the benefit of local people and prices in and around ASLNP

4.5.3.1. Positive quality of tourist facilities and services in and around ASLNP

The information obtained from park records, Fekadu Tefera and Rezenom Almaw(2002) and the oral discussion with park warden revealed that the ASLNP offered some tourist facilities such as guiding, camping site, and guest rest house at South of lake Shala.

As responses of warden of the ASLNP confirmed during interview, ASLNP also created some job opportunities for 21 members of local communities from total employee of 27. The responses of the ASLNP warden also revealed that the village women at the vicinity of headqurter of ASLNP, which offered cultural handicrafts to tourists, are other positive aspects of the tourism actvities at vicinity of ASLNP. Moreover, as the four selected hotels nearby ASLNP responses indicated 65% of their total employee are members of local people (Table 10).

4.5.3.2. Limitations of tourists facilities and in and around ASLNP

Eventhough the study revealed the tourism activities in and around ASLNP has benefited some members of local communities ,there is indicators for occurrences seasonality in tourism activities and destructions of natural resources around tourist destination sites like hot springs in ASLNP.Seasonality in tourism as flactuation of customers or visitors in different months from October, 2006- September,2007 of recent year (Figure 7) .

Source: Raw data of ASLNP and own computation

Figure 7: Seasonal distribution of tourists in Abijata Shala Lakes National Park from October, 2006-September, 2007**.**

According to information from ASLNP, the occurrences of seasonality in tourism activities at ASLNP could affect the revenues of the park and the income obtained by guiding services and selling of local handicrats in and at vicinity of the park.The information from the park also revealed that destructions of natural resources at destinations of tourist sites could reduce the attraction quality of the sites which lead to reductions of visitors of the park.

Based on responses of all the four hotels managers, at nearby ASLNP, the occurrence of seasonal tourist fluctuation and leakage in their tourism activities. As their responses revealed the occurrences seasonal tourist fluctuation was due to the seasonal coming of tourists whereas leakages was due to purchasing of almost all the raw materials required for their hotels or lodges from urban centers such as Addis Ababa rather than from surrounding local farmers or local markets. From these results, the seasonal tourist fluctuation could affect the employment opportunities of local people and leakage could enhance outflow revenues and affect development of local economy by importing goods and services. WTO (2002a) stated that seasonality in tourism could lead to increasing of unemployment of local people or seasonal employments and leakage, which led to low expenditure of tourists at local level and affects the development of local economy. The effects of both lead to deteriorations

of natural resources since they contribute to aggravating of poverty and degradations of natural resources as the local people do not have other alternatives.

As to the responses of four hotel or lodges managers, the accommodation offering services based on numbers of tourists received by hotels or lodges and need of accommodation services in a given period of time or season. Furthermore, there were the peak period/months and lowest period/ months offering accommodation services to tourists throughout the year in past 2006/07 year. Table 20 indicates seasonality in tourism activities 4 Hotels and lodges in CERV nearby ASLNP. In other words, Table 20 indicated the numbers of tourists received by hotels or lodges and seasonal offering of accommodation or beds per nights. This finding also indicated the direct occurrences of seasonality in tourism which indicated by numbers of tourist's coming seasonally.

Table 20: Seasonality in tourism activities in selected 4 Hotels or lodges in CERV nearby ASLNP

No	No of Beds	Hotel/Lodge name	No. Peak months	No. Lowest months	No Average months	No Less than average(months)
1	104	Langno Wabe Shabele Resort Hotel	3	3	6	3
2	48	Bishan Gari Lodge	4	2	6	2
3	40	Wenny Lodge	4	4	4	4
4	126	Langano Bekele Mola Hotel	5	5	2	5
Av.		-	4	3.5	4.5	3.5

4.5.3.3 Quality of ASLNP tourist facilities and services offered in relation to entrance fee/ prices

Analysis of WTP for entrance fee using CVM involved evaluation of WTP for entrance fee used to estimate recreational value of ASLNP from the viewpoint of tourists, based on results of tourist respondents of CVM questionnaires. Table 21

summarizes WTP of entrance fee by sample foreign resident tourists in September 2007. The calculated results of WTP for entrance fee from randomly sampled foreign resident tourists in September 2007 for ASLNP was extrapolated to aggregate WTP. The obtained aggregate results showed that, for 43.1% of the tourists WTP for entrance fee on an average was Eth.Birr 38.42, for 36.2% of the tourists WTP for entrance fee on an average was Eth.Birr 79.47 whereas the remaining percentage of tourists WTP was Eth.Birr 8.95 and Eth.Birr 100 and above .

Table 21: A summary of a hypothetical WTP data of entrance fee by sampled foreign resident tourists in September 2007, for ASLNP

Intervals for WTP entrance fee (Et Birr)	Frequency of population	Relative frequency (%)
0-17.89	3	5.2
17.90-58.95	25	43.1
58.96-99.99	21	36.2
100 and above	9	15.5
Total	58	100

The total WTP for entrance fee of the park interpreted as a minimum estimate for the recreational value or attractive value of resources of the park. The objective of using CVM was not only to evaluate entrance fee but also used to estimate the recreational value of the park (Dixon, 1994). Table 22 summarizes the aggregating benefits (WTP) of foreign resident tourists in September 2007, for ASLNP. As it can be seen from description of John (1994) as mentioned above and the result of estimating non-market recreational values of park using Dixon (1994) approach 48.3% of tourists were WTP less than what is expected to be paid (Eth.Birr 50.00) whereas 51.7% of tourists were WTP more than what is expected to be paid (Eth.Birr 50.00). This estimate of CVM may indicate need for improving the recreational quality of the ASLNP, which in turn help to increase the entrance fee for the park or numbers of tourists coming to the park.

Table 22: Summary of Estimating and aggregating benefits (WTP) of foreign resident tourists in September 2007, for ASLNP

Relative frequency (%)	Total population	WTP midpoints (Eth.Birr)	Total WTP for park entrance fee(Eth.Birr per month)
5.2	15	8.95	134.25
43.1	125	38.42	4802.50
36.2	105	79.47	8344.35
15.5	45	100*	4500
100	290		17781.10

* Midpoint of the last category is assumed to be Eth.Birr 100.

CHAPER 5:CONCLUSİON AND RECOMMENDATİONS

5.1 Conclusions

The assessment of ecotourism potentials revealed some of the natural and cultural tourism resources of ASLNP and its surroundings.The absence alternative options or ecotourism and sustainable management of natural resources are the major problems of ASLNP and its surroundings whreas ecotourism potentials are available. The main ecotourism potentials in and around ASLNP include diverse species of birds, scenic landscape, hot springs, ostrich farm and some mammals, cultural and historical attractions, lakes, beaches, and some hotels or lodges and their recreational activities such as swimming, boating, horse riding etc., at nearer of ASLNP.

The diverse species and abundant bird are residing in ASLNP that contributed to attract ecotourists or bird watchers to ASLNP. The hot springs are used for therapeutic and recreational purposes by many local people besde they are one of the attraction attributes for foreign tourists. During the field survey from August 15,2007 to August 21,2007, 553 local people were used the hot springs for therapeutic purposes.Moreover,from those sampled tourists which were visited ASLNP in September,2007,86.21% of them were intersted in attraction attributes of hot springs. Some potentials of diversified livelihoods or alternative options like local handicrafts, story telling , guiding services,local drinks and foods,local recreational activities,cutural shows and historical heritages that could be indicators of ecotourism potentials and could be offered by local communites were also detected. Furthermore, some tourist facilities and services like tracks or trails, camping sites and guiding services in ASLNP and hotels or lodges nearby ASLNP which were offered to the tourists.

On the otherhand, some management problems on natural resources like deforestation and social related problems like food insecurity which are contributed to aggravate poverty that might be a major threat to natural resources of study area were revealed. The attempt of estimate for entrance fee of park for tourists might be indicate the relative quality of park resources that might be need alternative options to increase entrance fee and recreational value of the park.

The study also revealed that offering tourist facilities and services and creating job opportunities for members of local communities are positive impacts of tourism activities whereas seasonality in tourism and leakages are negative impacts. The negative impacts of tourism might be able to aggravate poverty and consequent deterioration of tourism resources or natural resources whereas the positive impacts contributed to reduce degradation pressures on natural resources.

In general, the study attempted to reveal some ecotourism potentials or alternative options, which benefited the local communities while sustainable management of natural resources of the park achieved.

5.2 Recommendations

1. There are some ecotourism potentials and possibilities of alternative options, which are underdeveloped like local handicrafts. Therefore, reinforcing these off-farm diversified livelihoods and introducing additional alternative options is very important for sustainable management of natural resources in and around ASLNP.

2. There are problems of local communities linked with their livelihood and other related social problems that could contribute to extreme poverty, which in turn contributed to degradations of natural resources of the ASLNP. Thus, further study is necessary which contributed to alleviation of poverty of study area.

3. Degradation of natural resources around tourists' destinations sites like hot springs, the seasonality in tourism and leakages in and around are indicators of the negative impacts of tourism. Therefore, the concerned stakeholders are responsible to create alternative options for local communities, create attractive tourist facilities and services, and protect sensitive areas or sites of park and integrating the surrounding tourism activities with local economic development or agricultural activities.

4. Developing and creating diversified livelihood, promoting the development of ecotourism, encouraging benefit sharing and conservation of natural resources of the

park and giving the ownership sense of the local people over the natural resources of the park are very necessary for sustainable use of ecotourism resources of study area.

5.Because of different activities of private investors or hotels/lodges the naural resources of the study areas may degraded as fuelwoods or charcoals for sources of heatings and the study area may also will be polluted.Therfore,the hotels and othe developmental actvities are adivised to develop and increase the use of solar energy and biogas in subsituting for consumption of charcoal and fossil fuels to prevent deterioration of vegetation and avoiding resultant pollution.

6.Increasing the awareness of local communities in and around ASLNP towards ecotourism or nature tourism is very impotant.Therefore,such awareness might be effected through formal and informal meetings of local communities with support of ASLNP and other concerned stakeholders.

6.REFERENCES

Ayalew Sisay. (1992). Development of Tourism in Ethiopia. p. Unpublished Paper

Blower, J. (1969).Wildlife Conservation. Walia, 1**(2)**, 23-26.

Brodnig, G. (2006).Biodiversity Conservation and the Millennium Development Goals: Toward Sustainable Development. Regional Development Dialogue, 27(**1**):1-7.

CPI (Camerapix Publishers International). (2000).Spectrum Guide to Ethiopia (3rd edition).Camerapix Publishers International, Nairobi, Kenya, p.163

Couralet, C. (2004).Growth and population dynamics of Juniperus procera in an Ethiopia dry afromontane forest: dendrochronology and matrix model, Msc. thesis .A Study in Adaba –Dodola Forest Priority Area, P.4, 9, 10

CSA (Central Statistical Authority).(1998).Federal Democratic Republic of Ethiopia Office of population and housing census commission: The 1994 population and housing census of Ethiopia results for Oromia Region, Analytical Report, Volume **2**: p.326

Dagnachew Legessea ,Vallet, C. and Gasse ,F. (2003) . Hydrological response of catchments to climate and land use changes in Tropical Africa: case study South Central Ethiopia. Journal of Hydrology 275:67–85

Dann, Graham M.S., (2006).Content/Symbiotic Analysis: Application for Tourism Research. In Julio Aramberri and Richard Butler (Eds).Tourism Development issues for vulnerable industry, Viva Private Limited, UK

Dixon, J.A. (1994).Economic Analysis of Environmental Impacts (2nd edition). Earthscan Publications Ltd., London.

EFCOT(Ethiopia Forum for Community Based Tourism).(2003).A study into recommendations on establishment of Community Based Tourism Organization to promote, support the growth of Community Based Tourism in Ethiopia and to represent those involved in it. Report paper by consultancy team, November/December p.4

Elizabeth, K. and Willen, E.(1996).Phytoplankton composition and diversity in salinity- alkalinity series of lakes in Ethiopia rift valley. Hydrobiologia 80:1-8

EPA (Environmental Protection Authority), (1997).Environmental Policy of The Federal Democratic Republic of Ethiopia. Environmental Protection Authority in Collaboration with Ministry of Economic and Development, EPA, Addis Ababa.

ETT (Ethiopia Trade and Transportation) (2004) .Summary and Recommendation: Diagnostic Trade Integrity, Study Document Volume **1**, Chapter 12, pp.76-78

EWNHS (Ethiopia Wildlife and Natural History Society). (1996).Important Bird Areas of Ethiopia.1st eds., EWNHS, Addis Ababa.

Fekadu Tefera and Rezenom Almaw. (2002).Conservation and management issues of Abijata-Shala Lakes National Park. Unpublished park office document. Oromia natural resource conservation and environmental protection

Feyera Senbeta and Fekedu Tefera. (2001).Environmental Crisis in Abijata-Shala Lakes National Park.Walia, 22(**3**):29-34.

FNG. (Federal Negarit Gazeta). (2005). Proclamation To Provide Powers And Authority For Definitions Of Powers And Duties Of Executive Organs Of Federal Democratic Of Ethiopia: Proclamation No.471/2005.

Gadgil, M. and Rao, P.R.S. (1995).Designing incentives to conserve India's Biodiversity. In eragelldin I., Dasgupta P. and Mäler k.G.(eds)Property Rights In Social And Ecological Context, The International Bank For Reconstruction And Development/The World Bank, Washington, D.C. 20433 U.S.

Hanna, S. and Munasinghe, M. (1995).An Introduction of Property Rights in a Social and Ecological Context. In Seragelldin I., Dasgupta P. and Mäler k.G.(eds)Property Rights In Social And Ecological Context, The International Bank For Reconstruction And Development/The World Bank, Washington, D.C.20433 U.S.A.

Hengsdijk, H. & Jansen, H. (2006).Agricultural development in the Central Ethiopian Rift valley: A desk-study on water-related issues and knowledge to support a policy dialogue. Plant Research International B.V. Wageningen, the Netherlands, Nota_375_binnenwerk_revisedoc .doc [3/31/2007].

Holden, A. (2003). Environment and Tourism, 1st ed., Rutledge, England: pp.5, 62, 64. 68, 88, 97,165

Jodha, N.S. (1995).Environmental Crisis and Unsustainability in Himalayas; Lessons from the Degradations Process. In Seragelldin I.,Dasgupta P. and Mäler k.G.(eds)Property Rights In Social And Ecological Context, The International Bank For Reconstruction And Development/The World Bank, Washington, D.C.20433 U.S.A.

Lea, J. (1988). Tourism and Development in the Third World. Rutledge, London and New York.

Leizer, M.(2001). Sustainable Tourism Development in Nepal, Vietnam and LAO PDR.Expeience of SNV and partner organizations in Botswana's Netherlands, pp.12-19

Louis, M.P. (2007). Ecotourism in Namibia: Opportunities for Conservation and Development. In: Tadesse Woldemariam Gole (PhD)and Hirko Dibaba ,Department of Natural Resources , Jimma University (eds) Biodiversity Conservation and Poverty Reduction in Human Transformed Landscapes in Ethiopia. Ethiopian Coffee Forest Forum (Publisher), Paper presented to International Workshop, Addis Ababa, Ethiopia, October 3-5, pp. 17-20&31-40

Lovejoy, T. E. (1995) .The Quantification of biodiversity: an esoteric quest or a vital component of sustainable development? Biodiversity measurement and estimation, series B, 345(**8**):81-87

Minagawa Y. and Tanaka N., (1999).The application of Geographic Application Systems to Tourism Development Planning: case Study of Site Selection in Lombok Island, Indonesia, Regional Development Studies, 5(**6**):139-159

MoCT (Ministry of Culture and Tourism of Ethiopia). (2006) (unpublished): Tourism statistics bulletin No.8

Mohammed Abdi. (1993). Impact of Human Activity on Abijata-Shala Lakes National Park.Msc.Thesis, Agricultural University of Norway.

Moyini, Y. (2006). Uganda Ecotourism Assessment, Uganda Export Promotion Board, Uganda, Kampala. [Online] Availability. [8/24/2007]. Report

O'Riordan, T. (1995). Environnemental Science for Environnemental Management (1st ed.) School of Environmental Science, University of East Anglia, London Group Limited, Singapore pp.4, 8

Okello, F. (2003). Tourism and Hospitality Management: Ecotourism in Uganda A Case Study of the Mgahinga National Park. Master Thesis Graduate Business School of Economics And Commercial Law Göteborg University, http://www.handels.gu.se/epc/archive/00003698/ [7/25/2007].

Paola and Getahun Demissie .(1979).Geothermal energy:An inexhausible resources of great economic importance for Ethiopia,SINET:Ethiop.J.Sci.2(**2**):87-109

Perlo, B.V. (1995).Birds of Eastern Africa. Harper Collins Publisher, London.

Rannersmann, J. (2003). Geographer for the GTZ project. Community Based Eco-Tourism**:** Definition and overview of the different approaches and experiences. Unpublished document, Land use Planning and Resource Management of Oromiya Region (LUPO), Ethiopia, p.2

Sarantakos, S. (1988).Social Research (2nded.). Palgrave Publisher Ltd (Formerly Macmillan Press Ltd), Charles Sturt University, Australia. pp. 139-141,144-145,148

Scheyvens, R. (2002). Tourism for development empowering communities 1st ed. Pearson Education Limited, England

Scwenk, T. (2002).Potentials for Community Based Eco-Tourism Project in the Area of the Wenchi and Dendi Crater Lakes. Unpublished Paper, for community based eco-tourism studies, West Shewa, Oromiya Region, Ethiopia

Shibru, Tedla. (1994).Protected Areas Management Crisis in Ethiopia. Walia, 16(**2**):17

Silva, G.and McDill, M.E. (2004).Barriers to Ecotourism Supplier Success: A Comparison of Agency and Business Perspectives. Journal of Sustainable Tourism of the Pennsylvania University (USA), **12**:291- 294

Sindiga, I. (1999). Tourism and African Development: Change and Challenge of Tourism in Kenya. England: Ashgate publishing company.

Strasdas, W. (2002). Ecotourism Training Manual for Protected Area Managers .German Foundation for International Development (DSE) Center For Food, Rural Development and The Environment (ZEL) Feldafing And Zschortatu, Germany.

Sutherland, W.J. (2006). Ecological Census Techniques: Handbook (2nd ed.)Cambridge University Press, New York. P.60, 113-114,190, 196,246

Syvertsen P.O., (1994) .Wintering Water birds on Ethiopian Rift valley Lakes. Walia, 16(**1**):3-16

Tedele Zewdie. (2005). Ecotourism, Community Perception and its Implication to Natural Resources Conservation: A case study at Langano Catchments, South Central Ethiopia. Msc. Thesis, Dresden University of Technology, Faculty of Forest, Geo and Hydro sciences p.35.

Tenalem Ayenew.(2001) .Numerical groundwater flow modeling of the central main Ethiopian rift lakes basin. SINET:Ethiop.J.Sci.24(**2**):167-169

Tesfaye Hundessa, (1997).Major causes for the loss of wildlife resources, Walia 18(**1**):4

Theodros Atlabachew (2004).Sustainable Tourism Development and Ecotourism, Walia, 24(**3**):34-41

Theodros Atlabchew. (2002). Sustainable Tourism Development. Paper presented on the tourism Symposium on Occasion of the World Tourism Day, Sheraton Addis, September 24.

Tolcha Regassa.(2005).An Ecological Study of the vegetation Around Lake Abijata Msc. Thesis, Addis Ababa University, Addis Ababa p.

Torres, R. and Momsen, J.H.(2004).Challenges and potentials for liking tourism and agriculture to achieve pro-poor tourism objectives. Progress in Development Studies 4, **4**:294-318

Tsegaye Tadesse, (2007).Linking Forest Conservation with Rural Livelihoods: Lessons from WAJIB approach. In: Tadesse Woldemariam Gole (PhD)and Hirko Dibaba ,Department of Natural Resources ,Jimma University (eds) Biodiversity Conservation and Poverty Reduction in Human Transformed Landscapes in Ethiopia. Ethiopian Coffee Forest Forum (Publisher), Paper presented to International Workshop, Addis Ababa, Ethiopia, October 3-5, pp.30-31

Tsidell, C. (2001). Tourism Economics, the Environment and Development: Analysis and Policy. Edward Eglar Publishing Limited, Northampton, USA.

Urban, E.K. (1969). A Guide to Birds of Lake Abijata.Walia, 1(**3**), 28-34

Van Ter Beek, M. (2001) .Towards Sustainable Handover of IFMP's Mountain Trekking Project .Assessment and Alternative Scenarios based, on tourism, Management and Development Perspectives. Nijmegen, Netherlands p.25-26, 52

Wearing, S. and Neil, J. (1999).Ecotourism: Impacts, Potentials, and Possibilities. 1st ed. Reed Educational and Professional Publishing Ltd 1999, Great Britain

WTO, (1999).Guide For Local Authorities on Developing Sustainable Tourism. First Edition, WTO

WTO, (2002a).Tourism and Poverty Alleviation. World Tourism Organization, Madrid, Spain. pp.10, 20, 42,65,37,40

WTO, (2002c).Enhancing the economic benefits of tourism for local communities and poverty alleviation .WTO, Madrid, Spain.

WTO, (2002e).Tourism: A Catalyst for sustainable development in Africa WTO, Abuja, Nigeria .p.

Xu and Gormsen. (1999). The role of tourism in the regional economic development in China. Regional Development Studies, 5(**5**):116-119.

Yilma Dellelegn Abebe, (2003).Wetlands And Sustainable water management: An Exigency for Ethiopia, Walia, 23(**5**):28-29

Zelelem Getachew (2005). Determinants of sustainable rural water supply system in Ethiopia: the case of Two Rural water supply System in Amuye Serra and Habru Seftu schemes. Unpublished M.A Thesis presented at school of graduate of AAU in the department of RLDS.

Zerhun Woldu and Mesfin Tadesse, (1990) .The Status of Vegetation in lakes region of rift valley of Ethiopia and possibilities of it recovery. SINET; Ethiop.J.13 (**2**):97-120.

Zinabu Gebre-Mariam. (1998).Human Interaction and Water Quality in Horn of Africa Symposium Proceedings, February 1998, Philadelphia, USA.

Zinabu, G.M.and Elias, D. (1989). Water resources and fisheries management in Ethiopia rift valley.SINET:Ethiop.J.Sci.12 (**2**):95-109

7.ANNEXES

Annex 1: *Inbound (internationals) Tourism receipts from 2002 to 2005 in Ethiopia*

Year	Receipts		% Growth
	Birr	US$	
2002	676100000	77100000	4.5
2003	778000000	89946355	16.6
2004	994408062	114627850	27.5
2005	1202368339	138599940	20.9

Source: Ethiopian Ministry of Culture and Tourism. 2006

Annex 2: *Tourism in the economy of African countries in 1996*

Countries	GNP (US$ million)	GNP per capita (US$)	GNP	Merchandise exports	Commercial services exports
Eastern Africa	50,104	-	4.5	21.8	52.4
Burundi	708	140	0.1	2.5	5.9
Comoros	230	460	9.1	175.0	60.0
Djibouti	485	-	0.8	25.0	2.6
Eritrea	-	-	-	125.5	-
Ethiopia	6218	110	0.5	6.7	7.2
Kenya	9,272	330	5.1	22.9	49.6
Madagascar	3,849	240	1.7	12.7	22.2
Malawi	2,200	180	0.3	1.7	31.8
Mauritius	3,912	3,690	12.9	28.7	55.5
Reunion	-	-	-	124.0	-
Rwanda	1,330	190	0.1	1.7	2.9
Seychelles	515	6,960	20.8	201.9	43.1
Tanzania	3,703	130	8.7	42.5	53.0
Uganda	6,005	290	1.7	17.0	69.0
Zambia	4,168	430	1.4	4.9	72.3
Zimbabwe	7,509	620	2.9	10.4	57.2

Source: World Tourism Organization

Annex 3: *Human and Livestok Population in ASLNP in 1975, 1996 and 2000*

Population type	Population in 1975	Population in 1996	Population in 2000	Remark
Human	8870	20599	24785	3000 households in 2000
Cattle	27670	48890	>50000	
Goats and sheep	11000	19000	>20000	
Equines	5380	6990	>7000	

Source: Feyera Senbeta and Fekedu Tefera, 2001

Annex 4: *Responses of different governmental organizations on ecotourism resources of ASLNP*

No.	Organization	Ecotourism resources indicated	Remark
1.	Oromia Bureau of agriculture and Rural Development	Lifestyle of people, diversity of birds, local handicrafts, hotels	2 experts participated in responses
2.	ASLNP headquarter office	Hot springs, scenery of land, bird diversity, ostrich farm, beaches of lake Shala, some mammals	1 warden,1 officer,3 scouts participated in responses
3.	Ministry of Culture and Tourism of Federal Ethiopia	Lakes, hotels and lodges, diversity of birds,	1 experts participated in responses
4.	Oromia Culture and Tourism Bureau Ministry of Culture	Local handicrafts, Indigenous knowledge like conflict resolution by elder people, diversity of bird, hotels and lodges, story telling, wedding ceremony, conflict resolution system	2 experts participated in responses
5.	Ministry of Agriculture and Rural Development of Federal Ethiopia	Bird diversity, some mammals, hot springs, lakes,	2 experts participated

Annex 5: *Recorded members of Cultural Handicraft Association at ASLNP*

No.	Names	Sex	Age	Literacy
1.	Shibre Kedir	Female	37	6
2	Abebech Merga	Female	45	-
3.	Zeritu Guduru	Female	26	10
4.	Elfinesh Guduru	Female	25	3
5.	Dabale Wekjira	Female	30	-
6.	Waritie Sakalo	Female	40	-
7.	Zewditu Guduru	Female	16	10
8.	Shitayee Guduru	Female	19	10
9.	Genat Keweti	Female	20	2
10.	Dharoo Bude	Female	40	-

Annex 6: *Landuse type and land owned in hectares by total sampled households*

Landuse type	Farm land	Grazing land	Settlement land	Overall Total
Total	213.2	146	73.25	432.45
Maximumn	5	4	1	8
Minimum	0	0	0.25	0.75
average	2.58	1.76	0.88	2.63689

Annex 7 *:* *Livestock owned by total sampled households*

Livestock type	Maximum	Minimum	Mean	Std. Deviation
Cattle	50.00	.00	5.8720	6.4172
Goats	32.00	.00	6.7622	6.7249
Sheep	6.00	1.00	2.3125	1.5370
Equines	5.00	.00	1.5565	1.0843

Annex 8: *Responses on interest in Ecotourism activities by sampled households*

No.	Reponses	Response counts	Percentage of responses
1	Yes	61	37.2
2	No	103	62.8
Total	-	164	100

Annex 9: *Number of visitors or tourists and revenue collected from Otober, 2006 to September 2007 in the ASLNP*

Month Name	Total customers/ visitors	Paying customers	Not paying customers	Total cars	Revenue collecd (in Birr)
October	1071	887	184	203	31,314
November	826	715	111	162	26,433
December	746	746	0	176	24,923
January	939	882	57	195	27,519
February	851	851	0	100	28,207
March	435	435	0	103	11,724
April	672	668	4	111	16,517
May	905	536	369	77	7,768
June	927	693	234	63	6,680
July	1263	823	440	108	11,640
August	1215	1173	42	203	27,973
September	1349	1349	0	174	22,550
;Total	11199	9758	1441	1675	243,248
;Mean	≈933	≈813	≈120	140	20,270.66

Source: ASLNP Headquarter Office

Annex 10: *Lists some peasant associations in and buffer zones of ASLNP with sampled peasant associations and sampled households*

No.	PA	Households	Sampled households	Wereda or Aana	Remark
1.	Mutu Bisho	-	-	Shala	
2.	Ore Shibibo	-	-	Shala	
3.	Labu-Sebuka	220	28	Shala	
4.	Saro Mioftu	-	-	Shala	
5.	Wabani-Laman	-	-	Shala	
6.	Galo-Ilala	-	-	Shala	
7.	Harago-Lemano	185	23	Shala	
8.	Eddo-Jigessa	-	-	Arsi-Nagale	
9.	Alge-Dlbeto	-	-	Arsi-Nagale	
10.	Muli-Arjo	-	-	Arsi-Nagale	
11.	Shala-Bila	333	42	Arsi-Nagale	
12.	Gale Kelo	359	45	Arsi-Nagale	
13.	Daka Harangama	-	-	Arsi-Nagale	
14.	Dallu Harangama	237	30	Arsi-Nagale	
15	Daka Hora Kelo	-	-	Arsi-Nagale	
16.	Dasta Abijata	-	-	Adami-Jiddo Kombolicha	
17.	Hadansho	-	-	Adami-Jiddo Kombolicha	
18.	Adansho-Barnota	-	-	Adami-Jiddo Kombolicha	
Total		1334	168		

Annex 11*:* *Sampled peasant Associations with sampled households those responded interview questionnaires*

No.	Peasant associations	Total Households	Sampled households respondents	Wereda
1.	Labu-Sebuka	220	26	Shala
2.	Harago-Lemano	185	23	Shala
3.	Shala-Bila	333	41	Arsi-Nagale
4.	Gale Kelo	359	45	Arsi-Nagale
5.	Dallu Harangama	237	29	Arsi-Nagale
Total		1334	164	-

Note: Source from Shala, Arsi-Nagale and Adami-Jiddo Kombolicha Agricultural and Rural Development Office

Annex 12*:* *Responses of tourists on ecotourism attractions*

Attraction attributes	**Responses**	**No. of responses**	**%**
Species diversity	yes	42	*72.41*
	no	16	*27.59*
Bird spotting	yes	48	*82.76*
	no	10	*17.24*
Landscape	yes	42	*72.41*
	no	16	*27.5*
Village people or local life style	yes	51	*87.93*
	no	7	*12.07*
Ostrich farm	yes	48	*82.76*
	no	10	*17.24*
Sunset view	yes	46	*79.31*
	no	12	*20.69*
Hot springs	yes	50	*86.21*
	no	8	*13.79*
local handicrafts	yes	50	*86.21*
	no	*8*	*13.79*

Annex 13: *Some related information obtained during tourists' survey*

Sex of tourists	Male	38
	Female	20
Tourist residence	Foreigner	58
Tourist age range	Less 25	16
	26-35	15
	36-45	18
	46-55	7
	56-65	2
Reason tourist visit for	Research	1
	Leisure	49
	Nature	8
Frequency of visiting	1	28
	2	21
	3	6
	4	3
Education level of tourists	High school	3
	College	46
	Post graduate	9
Range of Willing To pay of Tourists for entrance fee(Birr)	0-17.90	3
	17.99-59	25
	59-99.9	21
	100 and above	9

Annex 14: Summary for indication of Seasonality and Leakage in four hotels.

No.	Hotels/Loges	Seasonality occurred	Leakage created
1.	Langno Wabe Shbelle Resort Hotel	✓	✓
2.	Bishan Gari Lodge	✓	✓
3.	Wenny Lodge	✓	✓
4.	Langanno Bekele Mola Hotel	✓	✓

Annex 15 : A-E /Interview Questions/Questionnaires
A. Interview Questions/Questionnaires to sample Households

Addis Ababa University

Environmental Science Program

Title : Assessment of Ecotourism Potentials For Sustainable Management of Natural Resources In And Around Abijata-Shala Lakes National Park

Household Questionnaire of the of local people in and around Abijata-Shala Lakes National Park

The purpose of these questionnaires is to obtain information from household of local community in and around the Abijata-Shala Lakes National Park about personal background information of households, socio-economic conditions of households, management and conservation and management problems o natural resources in and around Abijata-Shala Lakes National Park, present and prospect livelihood options of households and ecotourism resources that can attract tourists to the study area.

Region_____Zone_____Wereda:_____Kebele: _____

Interviewer _____ Date of Interview _____

Name of respondent _____

I/ Personal Background Information (You may circle more than one)

1. Sex: a. Male b. Female
2. Age a.15-30 b.31-45 c.46-60 d.>60
3. Marital Status: a. married b. single c. divorced d. widowed
4. Language: a. Afan Oromo b.Amharic c.specify others
5. Household size/ Family Size including adults and children: Male --. Female --
6. Literacy level: a. illiterate b. able to read c. primary school c. secondary school and above

II /Socio-Economic Conditions of Households

7. Source of livelihood/income: a. crop farming. b. livestock rearing c. mixed farming d. Handicraft e. specify others

8. Do you have adequate schooling facilities? a. Yes b. No

9. Do you have adequate transport facilities? a. Yes b. No

10. Do you have adequate communication facilities? a. Yes b. No

11. Do you have adequate health care facilities? a. Yes b. No

III/.Management and conservation of natural resources

12. Is any conflict over the use of the resources of the park? a. Yes b. No

13. If yes how to overcome this conflict is by: a. by involve local people in park b. by introducing ecotourism development in to the park c. both d. specify others

14. In your opinion the Park is a. Expanding. b. Shrinking. c. No change.

15. If shrinking, what are the causes? a. expanding of settlements into the park b. expanding of farming c. overgrazing c. removing of fuel wood from park d. all above e. specifies others

16. Are there natural resources you need in and around the park? a. Yes b. No.

17. If yes, the main of these resources areas. a. Forests b. lake/water c. wildlife d. all above e. others

18. Have you seen destruction of these resources of the park? a. Yes b. No

19. If yes, the major cause of this destruction is: a. deforestation b. overgrazing by cattle c. Farming d. over extraction of lake and river water e. all above f. specify others

20. What is the effect of this destruction? a. soil erosion b. degradation of vegetation c. depletion of wildlife d. depletion of fish e. all above f. specify others

21. Is it possible way to manage this destruction? a. Yes b. No

22. If yes, the means to overcome causes of this destruction is by: a. introducing ecotourism-diversified livelihood including mixed farming b. involving local people in conservation c. both d. specifies other

23. Have you owned a piece of land? a. Yes b. No

24. If yes, the total area of your piece of land in hectares for: a. for farming __b. for grazing___ c. for homestead __d. for wood lots e. Others_

25. Total size of land owned by you in hectare----------

26. Is there conflict among land users and forms o land use? a. Yes b. No

27. If yes the responsible body to solve this conflict is: a. Government (agriculture) office b. NGOs c. local communities' d. park management e. private sectors f. all above

30. Do you have livestock? a. Yes 2. No.

28. If yes, list livestock types and Number a. Cattle ___b. Goats_____c. Sheep _____d. equines_____ e. Other_____

29. Do you get animal feed/forage? a. yes b. no

30. If yes, the feed for animal/livestock can be obtained from a. grassland from the park b. farmland c. seed crops d. all above e. Specifies others

31. Are there problems related to livestock? a. Yes b. no

32. If yes, which of the following are problems of livestock (rank according to their importance).a. Shortage of forage/ feed_ b. Pests and diseases_ c. lack of water for livestock_ .overgrazing by free grazing animals___ e. others__

33. These problems will be solved by: a. cut and carry method b. diversifying forage development c. using water harvestings techniques d. all above e. specify others

IV/. Livelihood options of households

34. What are the main food crops in the area? a. teff b. maize c. corn d. wheat e. others

35. Do you feel that, the present occupation of food crops can feed your family for the next few years? a. Yes --------b. no----------

36. If no, what are the main causes of food crop reduction/yield? a. recurrent drought b. depletion of soil nutrients c. depletion of fertile top soils d. all above e. specify others

37. How to overcome this problem? By: a. diversifying livelihood/ ecotourism b. growing drought resistant food and fruits all above. d. specify others

38. Do you obtain some products /income from your activities? a. yes b. no

39. If yes, the estimated amount of income/product you obtained per year from: a. grains/crops in quintals /sales is___ animals' number/ sales is_ c. number/ sales of animal products is__ d. other products/services_____

40. Total amount of your estimated product/income from various sales of crops, animals, animal products and other services per year in Birr is_____

41. Do you have any livelihood that is linked with National Park a. Yes-b. No

42. If yes, your livelihood is linked by a. land for farming b. grazing land c. fuel wood d. materials for constructions

V/. Tourism Resources That Can Attract Tourists To The Study Area

43. Mention other purposes of using this park? a. as ecotourism development areas b. as rituals area

c. sanitation place d. all above e. specify others

44. Are there tourism resources in surroundings/park? a. Yes b. No

45. If yes, the main tourism resources that can attract tourists in this location are: a. natural resources b. cultural resources c. historical resources d. all above e. others

46. What are the other advantages of these resources of the park? a. as source of food for livestock b. has research value c. has economical value d. all above e. specify others

47. List natural tourism resources: a. lakes b. birdlife c. wildlife d. hot sprigs e. all above e. others

48. List cultural and historical tourism resources: a. museum collections b. local handicrafts c. religious sites d. folklore/story telling, tradition e. all above except a f. specify others

49. What are the special features of this tourist spot? a. scenic beauty area endowed with bird life b. area of recreation c. favorable area for visiting d. all above e. specify other

50. Are you interested in ecotourism activities or diversified livelihoods? Yes/No

What tourist services /facilities members of local communities will offer in this spot? Give answers for 54-61 questionnaires.

51. Guiding Yes/No

52. Local transportation to go round the spot Yes/No

53. Local drinks yes/No

54. Local foods yes/No

55. Local recreational sports Yes/No

56. Local handicraft products Yes/No

57. Local culture, skills included in offering services Yes/No?

58. Do ecotourism resources of the area affected. Yes/No

59. If yes what are the most difficulties/problems face you to implement ecotourism and other developmental activities of this area. a. lack of food crops b. lack of drinking water

c. inadequate skills d. all above e. specify others

60. What important assistance you need to solve these problems? a. adequate skills/training b. cooperation c. loans/ credits d. investors partnership e. all above f. specify others

61. Are residents of the park or surrounding areas? Yes/No

62. If yes when do you start to reside here? a. I am already living here b. I came here to live before 20 years c. I live here since I was child d. I live here since fall of Derg Regime

Thank you!

B. Interview Questions/Questionnaires to Visitors

The purpose of this questionnaire is to obtain information from visitors on attraction ecotourism resources and evaluation of the these resources of in and surrounding of Abijata-Shala Lakes National Park including other areas Central Ethiopian Rift valley.

Name of interviewer----------Address/country----------Phone--------

1. In which country do you permanently reside? ---------- --------

2. Please check one: a. male b. female

3. What is your age group? a. less than 25 years b. Between 26 and 35 year c. between 36 and 45 years d. Between 46 and 55 years e. between 56 and 65 years f. over 65 years

4. What was your primary reason for visiting this area? a. Research b. leisure c. nature d. business e. specify others-- (Please choose one)

5. How far do you have to travel to visit this site?

6. How many times have you visited this place? a.1 b.2 c. 3 d. 4 e. 5 and above

7. Please list the figure that is closest to your annual income: (according to the local currency in Birr) if not your country currency. _____

8. What is the highest level of education that you completed? a. Primary school b. high College d. Post-Graduate e. other (specify

9. Would you willing to pay Birr_____? a. Yes b No

10. What would be willing _to pay for entrance fee to have satisfaction or benefit from this park? In Eth.Birr----------

11. What attributes of this site of park is attractive? (Choose one) a. species diversity a. bird spotting or watch c. landscape viewing d. sunset e. others

12. What do you comment/suggest about this park?

Thank you for participating in our visitor survey!

C. Interviews or questionnaire to senior experts of natural resources, park managers/wardens (ASLNP) and other concerned stakeholders about natural resources management of Abijata-Shala Lakes National Park

The purpose of this questionnaire is to obtain information from experts, managers/wardens from agricultural and rural development at different levels and ASLNP about management problems natural resources and ecotourism potentials including the alternative livelihoods options that contributed to sustainable utilization of natural resources around Abijata-Shala Lakes National Park.

Personal Background Information

I. Personal Background Information about informants/interviewers.

1. Name: ----------

2. Age: ----------

3. Educational status: ----------

4. Occupational status: Government/private/NGO/others----------

5. Name of organization: _____

6. Designation: _____

7. Years of working experience: _____

II. Part B: Assessment of the problems with Natural Resource Management and mitigation measures

8. What is legislation of this area? a. Fully protected b. inadequately protected

9. Can you brief about boundaries of this area? a. Has physically demarcated

b. has some boundaries demarcated c. Lacks demarcation boundaries

10. What are socio- economic influences of this area? a. Human habitations

b. Grazing by cattle c. Fuel wood removals d. Hunting e. Specify others

11. What are external threats of the park? a. Mining operations b. Industrial development c. Agricultural activities d. Settlement e. Specify others

12. What looks-like the protection of natural resources this area? a. appropriate level c. Suffers from human interferences

13. What is the extent of local participation in this area? a. Has a local advisory committee b. Does not involve local people at all c. specify others

14. What are the benefits to local people in this area and its surroundings?

a. employment opportunities, b. grazing on grasses of the park and cultivates land c. obtain constructions and wood fuels c. specifies others.

15. What is the extent of budget to this area? a. sufficient b. No sufficient c. Lack

16. Are there sufficient personnel in this area to protect?

17. Indicate the ecotourism resources of the park:----------

18. Who is responsible for managing the natural resources development?

19. What are the major problems with the natural resources of the park? ----------

20. Who are responsible for this destruction? ----------

21. Describe the expected impacts of the problems ----------

22. What measures can be envisaged to overcome these problems? ----------

23. What are the different livelihoods options can be suggested for the local people?

24. What are the major sites of the park, which attracts tourists?

25. What are the ways of financing the park from tourism income?

26. List a. strengths –

b. weakness-.

c. opportunities

d. threats

28. What are the objectives of entrance fee?

29. What is the area of closed part of the park?

30. about hot springs

a. What are number of local customers uses hot spring?

b. What are the season/months of a year has

1. Peak period for customers or visitors
2. Low period customer or visitors
3. Average period for customers or visitors

c. hot springs used for 1. Agricultural and rural development at different levels and ASLNP stakeholders bathing. 2. Drinking by livestock or cattle and surrounding people

d. What is the temperature of hot spring water for?

a. bathing.

b. drinking by livestock or cattle and surrounding people

c. cooking food such as eggs and ripened maize

e. what is the fate of hot springs?

31. Is there historical caves or heritages in this park?

32..Is there an teaching trails in the park?

33..Is there guesthouse? what is its capacity?

34. Is there widlife museum?

35. Number of visitors and revenue collected 1996 to 2006 in the Abijata Shala Lakes National Park.

36. What was the human population number of the park in past year?

37.What are the social problems of the pepople living in the park?

38.What are social services for local people in and around the park?

Thank you!

D. Questionnaires/Interviews to Managers tourist establishments, facilities, or tourism enterprises

The purpose of this section is to assess tourist facilities and services offered by tourism enterprises/hotels or lodges / in Central Ethiopian Rift Valley around ASLNP.

Business Name_____

Manager Name_____

Address_____

Phone_____

Part I/About tourist establishments or facilities

1. Is there parking at the establishment? a. Yes b. no
2. What the lodging facility offer?
3. What is the profile of those employed? a. Owners b. hired c. others
4. What training/educational needs of tourism? a. Guest reception b. food preparation c. tourism and environmental management d. specify others
5. What is the number or percentage of local people employed in this tourism business? –
6. Since when facility of tourists exists? ----years.
7. What is the capacity of the accommodation facility? …. number of beds and ----------number of seats
8. How many people work in the establishment now? -------in number.

----- Permanent in number and Part-time..... temporary in number,

9. How many of the employed are a. female.....number b. male.....number
10. What local particularities (crafts, cuisine, folklore, etc.) do you offer to the visitors of your establishment / hotel / enterprise? ----------
11. How many tourists visited/came here in the past year? ----------
12. Do you experience seasonality? Yes/no

13. If so, how much, peak, average, and low season in moths? ----------

14. What was the average number of days your guests staying in the past year? -----

15. Where do most of your guests come from?

16. What are the reasons tourists visiting here? a. nature/wildlife b. culture c. others

Part II/ Regarding To Ecotourism Activities

17. From where do you obtain most of your raw material/commodities/ services?

18. What is the form of ownership of this ecotourism business?

19. How are the attitudes of government/ local authorities/NGOs to your ecotourism-enterprise?

20. If supportive to Q.19, what type of assistance does you gets?

21. What heating source do you use? Solar or wind energy, composting, water

22. What are the sport, recreation and other activities used by tourists----------?

Thank you!

E.Interviews or Questionnaire to professionals/experts of tourism, natural resources management and other related stakeholders

The purpose of this questionnaire is to obtain information from professionals/experts of tourism about natural resources base, tourism potentials which can be good attraction for the eco-tourism development and evaluation of the ecotourism potentials in and around ASLNP.

I. Personal Background Information

The purpose of this section is to get Personal Background Information about informants/interviewers.

1. Name: ----------

2. Age: ----------

3. Educational status:----------

4. Occupational status: Government/private/NGO/others

5. Name of organization: ----------

Designation: ----------

7. Years of working experience: _____

II. Natural resources base and ecotourism potentials

8. Does the area have? a. Beach or lakeside recreation facilities b. River, falls or swimming pools c. No water-related recreation

9. Is the area closure enough to other sites of tourist interest to be part of a tourist circuit? a. Yes b. Moderate potential c. Low or no potential

10. Is the surrounding area? a. of high scenic beauty b. Moderately attractive c. Rather ordinary

III. Part C Ecotourism initiatives and tourists facilities

11. What are the different initiatives or tourism activities undertaken in this area relating to relating to the recreational spot?----------

12. What are the different initiatives or tourism activities undertaken in this area relating to relating to the lodging? ----------

13. Who has initiated these activities? a. Government b. Private c. Local community d. Others if any please specify_____

14. What are the tourist facilities available in this spot?----------

15. Are local culture, skills included in offering services? Yes/No

16. Are the tourist facilities environmental friendly? Yes/No

17. Is the facility in local style? Yes/No

18. Does the facility interfere with the natural ecosystem? Yes/No

III. Part C: Regarding to tourism policy

19. When was the ecotourism development started in the in the region ---------- in the Central Ethiopian Rift Valley in----------.

20. What are the main objectives of the ecotourism development? ----------

21. What are focus areas of ecotourism strategy/programs? ----------

22. Why? ----------

23. Is there tourism or ecotourism policy/ strategy/programs in Ethiopia? 1. Yes 2.no

24. If yes, to what policy/ strategic framework exist for them? ----------

Annex 16: Literacy levels of sampled households by sex

		Literacy				
		Illiterate	Able To read	Primary school	Secondary and above	Total
Sex	Male	37	33	55	13	138
	Female	12	2	7	5	26
Total		49	35	62	18	164

Annex 17: Members of household respondents by sex

Male	Female
597	602
7.236364	7.236364

Annex 18: Lteracy level of sampled households with ranges of their ages.

Age range	Illiterate	Able to read	Primary school	Secondary and above	Total
18-26	4	6	12	5	27
27-35	10	7	18	2	37
36-44	13	8	17	6	44
45-53	9	6	8	2	25
54-62	6	3	7	2	18
63-71	4	5	0	1	10
72-80	3	0	0	0	3
Total	49	35	62	18	164
Percent	29.9	21.3	37.9	10.9	100

Annex 19: Reponses of sampled households whether they get the adequate services of the social services indicated in table below saying yes if adequate no if not adequate.

Reponses	Schooling facilities		Transport facilities		Communication facilities		health care facilities	
	Frequency	percent	Frequency	percent	Frequency	percent	Frequency	percent
yes	27	16.5	18	11	10	6.1	9	5.5
no	137	83.5	146	89	154	93.9	155	94.5
Total	164	100	164	100	164	100	164	100

Annex 20: Data on schools with students and teachers in and at vicinity of the

No.	Name of school	Level of school	Students			Teachers			Peasant Association where school found
			Male	Female	Total	Male	Female	Total	
1.	Dekka Langanno	1-8	362	293	655	6	2	8	Dekka Hora Kelo
2.	Dekka Hora Kelo	1-4	190	149	339	2	0	2	Dekka Hora Kelo
3.	Dekka Dellu Harangama	1-4	116	123	239	3	0	3	Dekka Harangama
4.	Alge	1-8	290	152	442	6	0	6	Alge Dilbato
5.	Muli Arjo	1-8	339	271	610	7	0	7	Muli Arjo
6.	J/Fikee	1-8	360	290	650	8	0	8	Shalla Bila
7.	Dole	1-8	430	458	888	8	3	11	Hadha Brisoo and Gale-kelo
8.	Gale	1-4	97	113	210	3	0	3	Galee and Keo
		Total	2184	1849	4033	43	5	48	

ASLNP

Source:Planning and Staistics section of education office Arsi-Nagelle Woreda

Annex 21: Paying and non-paying visitors and revenues collected 1996 -2006 in ASLNP**.**

Year in G.C	Paying visitors or customers	Not paying vitors or Students/resarchers	Total customers or visitors	Total cars	Revenue collecd (in Birr)
1996	909	430	1339	1339	8456
1997	3377	609	3986	3986	68524
1998	3565	220	3785	3855	94263
1999	2103	466	2569	2570	60739
2000	3552	392	3944	3944	81800
2001	3504	842	4346	4346	77609
2002	4366	291	4657	4657	102941
2003	4146	535	4681	4681	115354
2004	5172	1200	6372	6372	147090
2005	6692	1652	8344	6692	197605
2006	6049	1652	7701	7705	195062
Total	43435	8289	51724	50147	1149443
Percent	83.97	16.03	100	-	-

Source:ASLNP Headqurter of ASLNP Office

It assumed that 1988 Ethiopian fiscal year to corresponds to 1996 Gregorian calener and

Upto 1998 Ethiopian fiscal year the same is true respectively.

Annex 22: Paying customers and non-paying customers' visitors and revenue collected from Otober, 2006 to September 2007 in the ASLNP

Month Name	Total customers/ visitors	Paying customers	Not paying customers	Total cars	Revenue collecd (in Birr)
October	1071	887	184	203	31,314
November	826	715	111	162	26,433
December	746	746	0	176	24,923
January	939	882	57	195	27,519
February	851	851	0	100	28,207
March	435	435	0	103	11,724
April	672	668	4	111	16,517
May	905	536	369	77	7,768
June	927	693	234	63	6,680
July	1263	823	440	108	11,640
August	1215	1173	42	203	27,973
September	1349	1349	0	174	22,550
Total	11199	9758	1441	1675	243,248
Mean	≈933	≈813	≈120	140	20,270.66

Source: ASLNP Headquarter Office

Annex 23: Responses of sampled households about conflicts on park resources

Responses	Conflicts on park resources	
	Frequency	Percent
yes	150	91.5
no	14	8.5
total	164	100.0

Annex 24: Visitor types, their numbers and revenue collected from them October 2006 to September 2007 in the ASLNP

Name of Month	Ethiopians	Resident Foreigners	Tourists	Students	Total	Revenue collecd (in Birr)
Otober	275	105	507	184	203	31,314
November	208	80	427	111	162	26,433
December	234	121	391	0	176	24,923
January	352	97	433	57	195	27,519
February	289	144	418	0	100	28,207
March	204	73	158	0	103	11,724
April	251	201	216	4	111	16,517
May	399	58	79	369	77	7,768
June	585	52	56	234	63	6,680
July	626	58	139	440	108	11,640
August	651	97	425	42	203	27,973
September	943	116	290	0	174	22,550
Total	5017	1202	3539	1441	1675	243,248

Source: ASLNP Headquarter Office

Note: Except students for education or research, the remaining customers were paying entrance fee.

Annex 25 :

A. The major tourist attractions that the park offers are:

No	Attractions	Visiting site	Distance	Accessibility	Maximum time to visit
1.	Ostriches	Ostrich Farm	50-100 meters	By vehicle or on foot	Less than 30 minutes
2.	Some mammal species	Grants Gazelle, warthogs ,within park headquarter compound	100-300 meters	By vehicle or on foot	Less than 30 minutes
3.	Landscape scenery viewing -Sunset viewing	At view point	5 kilo meters	By vehicle or on foot	30 minutes to 1 hour
4.	Shala hot springs	Near lake Shala	10 kilo meters	By vehicle or on foot	1hour to 3 hours
5.	Bird watching –spectacular wetland bird life	-Along lake Abijata shore	-	By vehicle or on foot	1hour to 3 hours

Source: ASLNP Headquarter

B. Entrance and camping fee for 48 hours stay per person

Type of visitors	Entrance fee	Camping charge
Ethiopian visitors		
Adult	3 Birr	2 Birr
child	2 Birr	1 Birr
Foreign residents		
Adult	30 Birr	10 Birr
child	10 Birr	5 Birr
Tourist-what kind?		
Adult	50 Birr	20 Birr
child	25 Birr	5 Birr

Source: ASLNP Headquarter

C.Vehicle charge for 48 hours for entrance and camping or guarding

Number of vehicle seats	Charge for seats
5-8 seats	10 Birr
9-11 seats	15 Birr
12-20 seats	20 Birr

Source: ASLNP Headquarter

PHOTOS

Photo 1: Ostrich farm at ASLNP

Photo 2: Quarrying at South –East of Lake Abijata which is one of the negative impacts on ASLNP

Photo 3: Doddota Viewpoint between Lake Abijata and Lake Shala

Photo 4: Devastating acacia trees for charcoal production at Dallu Harangama Kebele in ASLNP

Photo 5: Attractive beaches of Eastern Lake Shala at vicinity of hot springs

Photo 6: Livestock in Eastern side of Lake Shala in ASLNP

Photo 7: BishanGari-Eco-Lodge Water Supply (Bishan Gari Spring Water) in forest area at Eastern shore of Lake Langano.

Photo 8: Tukuls at Bishan Gari-Eco-lodge

Photo 9: Lake Chitu, a small lake with abundant birds of Greater Flamingoes and Lesser Flamingoes at vicinity south –West of Lake Shala**.**

Photo 10: Grave arts reflecting pastoral tradition in and around ASLNP**.**