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**The challenges of tourism resources conservation and
Management in Abijata- Shala Lakes National Park,
Central Rift Valley, Ethiopia**

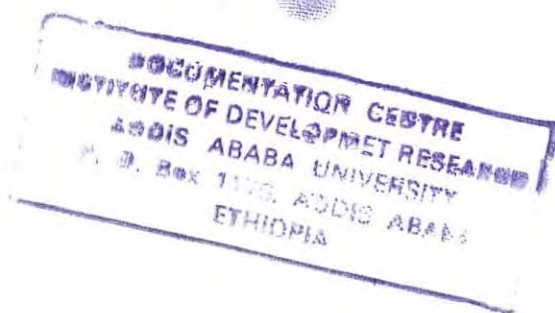


By

G/Michael G/Medhin Teferi

June 2008

Addis Ababa



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ADDIS ABABA UNIVERSITY
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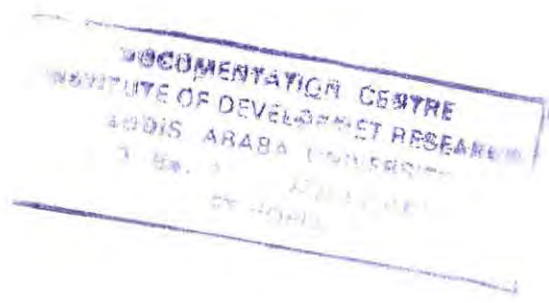
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ACRONYMS

ASLNP	Abijata-Shala Lakes National Park
CRV	Central Rift Valley
CBNRM	Community Based Natural Resource Management
EBAs	Endemic Bird Areas
ETB	Ethiopian Birr
ETV	Ethiopian Television
EWCO	Ethiopian Wild life Conservation Organization
IBAs	Important Bird Areas
IUCN	World Conservation Union
MoAFWCDD	Ministry of Agriculture, Forestry, and Wild life Conservation and Development Department
MoARD	Ministry of Agriculture and Rural Development
MoCT	Ministry of Culture and Tourism
PAs	Peasant Associations
SNNPR	Southern Nations Nationalities and Peoples Region
UNEP	United Nations Environmental Program
UNESCO	United Nations Educational, Scientific and cultural Organization
UNWTO	United Nations World Tourism Organization

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Abstract

The Abijata-Shala Lakes National Park (ASLNP) was established in 1970 over an area of 887 km² of land, to conserve the spectacular aquatic birds and the biodiversity of the locality. It is one of the most beautiful spots of Ethiopia, possessing blue lakes edging with flat-topped acacia trees, magnificent wealth of avifauna, the lava caves, and hot springs. Two Important Bird Areas are registered within this park where it contains over 436 bird species, and is a home for a total of 76 mammal species. Besides of their ecological values, the park resources enabled to generate about 2.1 million ETB to the national economy through tourism provision between the years of 1989 to 2007, and created job opportunities for citizens.

However, most of the objectives for the establishment of the ASLNP are not yet implemented and realized. Conflicting objectives are prevailing concerning the conservation of resources among stakeholders. There are two types of incompatible land use systems, consumptive and non-consumptive, going on in the national park, which affected the natural resources to the extent that the whole ecosystem functioning and its biodiversity is put in jeopardy. Currently population settlement, farm land expansion, overgrazing, tree cutting, fishing, sand mining, mineral salt extraction, and water abstraction constitute the major challenges of nature conservation with their serious consequences on the tourism resources. Population pressure, land scarcity, poverty, loose stakeholders coordination, and the conservation policies and approaches practiced for decades are found to be among the major driving forces for the huge resource degradation in the park. This study made a thorough investigation on the existing conservation and management challenges, their sources, causes, and consequences on the tourism attractions in the national park. For this purpose, adequate data was generated from different primary and secondary sources using various techniques. In the primary data collection process, 100 households, 24 visitors and other stakeholders from the surrounding were administered by way of survey questionnaire. The process was backed by discussion, interview and observation in the study area, where the author believes it was vital to understand the perception, outlook and resource handling mechanism of different actors within the ASLNP.

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1. Introduction

1.1 Background of the study

The term tourism has been defined by many commentators. According to Herbert (1994) tourism refers to the idea of trips or excursion away from the normal place of residence; involving at least an overnight stay. The tourism encyclopedia also defines it as *"the act of travel for the purpose of recreation, and the provision of services for this act."* Mathieson and Wall (1982) cited in Ratz (2000) defines the word in a more broader way as *"Tourism is the temporary movement of people to destinations outside their normal places of work and residences, the activities undertaken during their stay in those destinations, and the facilities created to cater their needs"*. A tourist, on the other hand, as defined by the United Nations World Tourism Organization (UNWTO), is some one who travels at least 80 kilometers from home for the purpose of recreation. It occurs in specially designated blocks of time. People become tourists when they leave their homes for a significant period of time to visit places, to experience a range of activities, and to enjoy time spent in relaxation (Herbert 1994).

The origins of tourism are ancient. Wealthy people have always traveled to distant parts of the world to see great buildings or other works of art, to learn new languages or to taste new cuisine ([http:// Encarta.msn.com](http://Encarta.msn.com)). Tourism was known in imperial Rome with the use of sea side resorts. Certainly, in medieval time pilgrimages to the holy land involved pleasure and sight seeing as well as religious duty (Urry 1990). As long ago as the time of the Roman Republic, places such as Baiae were popular coastal resorts for the rich (Repanshek 2007). But the terms tourist and tourism were first used officially in 1937 by the League of Nations.

Mass tourism began to develop with improvements of transport technologies. This has allowed the transport of large numbers of people in a short space of time to places of leisure interest. Historically the development of tourism has been closely associated with the advancement of transport technology which has facilitated access between markets and destination (Pearce 1989). The early developments of spas and seaside resorts depended largely on the development of the railways. The invention of the

railways brought many of the sea side towns within easy distance of urban center (Herbert 1994). In the post-war period, the rapid rise in automobile ownership has been responsible for the vast increase in domestic tourism in western societies. And improved aircraft technology has led to a boom in international travel.

The growth of tourism has been one of the features of the 20th C that has now become the world's largest industry, and is expected to continue to grow and maintain that status well in to the future. Many countries depend heavily up on travel expenditures by foreigners as a source of taxation and income, with rising visitation. The number of international tourists was 14 million, 340 million, and 403 million in 1948, 1986 and in 1989 respectively. According to the World Tourism Organization, about 691 million tourists were registered all over the world in 2003, and this figure rose to 806 Million in 2005, and in 2006 International tourist arrivals reached 846 million (i.e. 6.5% growth a year from 1950-2006). The UNWTO forecasts that international tourism will continue growing at the average annual rate of 4%, to reach nearly 1.6 billion by the year 2020. Space tourism is expected to take-off in the near future, and under water tourism as well (Pearce 1989; UNWTO 2002; The Middle East 2007).

As stated by Pearce (1989) tourism attributes are characterized by the demand for and provisions of a wide range of goods and services. In terms of the tourists' destination, these can be grouped in to four broad sectors namely; attractions (which encourage tourists to visit the area), accommodations (such as restaurants, bedrooms...), supporting facilities (shops, banks, insurance...), and infrastructure (which assures the essential functioning of all of these). Tourism attractions are of two types, natural and man made. The man made attractions include: art, architecture, cultural monument, museums, local traditions, food and drink, music and drama, as well as important historical, archeological and political sites. The natural attractions are the physical resources such as the naturally occurring features of an area which might attract tourists. These include the physical landscape; National Parks, scenic views, beaches, mountains, rivers, lakes, glaciers, natural ecosystems such as rain forest, tropical grass land, as well as weather and climate ([http:](http://)

//Encarta. msn.com). The natural world provides one of the most important tourism resources, of which National Parks are the main components. A National Park is a reserve of land, usually but not always, declared and owned by a national government, protected from most human developments and pollution (Repanshek 2007). They are unique public lands, or bodies of water within a country, set aside by the government to protect ecosystems, plant and animal species, scenic land escapes, geologic formations, or historical and archeological sites (Repanshek 2007), designated as special land use to protect areas of natural beauty or communities of organisms thought worthy of protection.

The idea of establishing national parks goes back to the early 19th c, where the painter George Catlin wrote in 1832 that the Native Americans in the US might be preserved by *"some great protecting policy of government.....in a magnificent park...a nation's park, containing man and beast, in all the wild and freshness of their nature's beauty"*. Similar ideas were expressed in other countries. But the Scottish-American naturalist John Muir was inspirational in the foundation of national parks, anticipating many ideas of conservationism, environmentalism, and the animal rights movement. (<http://encarta.msn.com>). The world's first national park, Yellowstone, was established in the US in 1872. Since then countries of the world have established more than 4000 national parks and reserves, to protect remote, and unspoiled natural environment, or islands of wilderness with in heavily populated regions. These protected public lands are, in principle, off-limits to hunting, livestock grazing, logging, mining, agriculture, and other activities that exploit natural resources (Repanshek 2007).

National park management, based on the concept of biodiversity, is intended to protect all natural resources within park boundaries (<http://encarta.msn.com>). This involves managing plant and animal species to accommodate both species and genetic diversity. However, biodiversity management often conflicts with public access in national parks that promote recreation as well as wild life conservation. The conservation of the natural environment in the form of National Parks and other protected areas, however, has always been entangled with multitude of problems. Although, the environment supports life sustaining resources, human beings, in their

desire to exploit these resources unsustainably, have severely damaged nature in various ways. The loss of biodiversity, land and habitat degradation, the scaring of land escapes, etc are the major threats to the integrity of national parks and other protected areas. The balance of the demand for extraction of the resources from national parks, against the damage this might cause, is often a very important challenge in national parks management (<http://encarta.msn.com>).

Many National parks around the world are considered as 'ecological islands' subject to direct and indirect modification by activities and conditions in the surrounding areas. There is a pressure on the land surrounding the National parks. In some instances there is intensive agriculture and settlement within, and practically right up to the boundaries of National Parks. This problem is bound to get worse since the early times in African national parks with serious impact on wild lives. Wheatear (1968) indicated the problem in Murchison fall national park, Uganda in the early 1960s where settlement along the southwest boundary resulted in increased poaching, hunting and ecological imbalance in general.

Ethiopia owns both types of tourism attractions (natural and man-made tourism resources), which made it an ideal destination for visitors. With its 11 national parks, and other attraction resources, the country attracts international tourists. However, the national parks are at the centre for conflict over natural resources by different stakeholders such as; the local resource users, park authority, local administration, tourists, investors and others. Like any where else, the problems faced by Ethiopian National parks are many, complex and interrelated. The major conservation challenges in the Ethiopian National parks are; encroachment of local communities, farm and grazing land expansion, habitat degradation, poaching, hunting, and settlement. Of all, human settlement in and around National Parks is the biggest challenge (MoAFWCDD 1980) to nature conservation in national parks.

The dependence of many Ethiopians on National Parks is direct and immediate. It has led to the excessive depletion of the environmental resources. Activities like overgrazing, fuel wood consumption and encroachment into parks in search of arable

land are creating an environmental imbalance like deforestation, desertification, land degradation, and water scarcity in many national parks of Ethiopia (Almaz 1996). Most of these problems are prevalent in the Abijjata-Shala lakes national park with their severe impact on the tourism attractions. The conflict over the natural resources has led to an overall depletion of tourism attractions. This study investigated the main challenges of nature conservation, the sources and root causes of tourism resources depletion in the ASLNP.

1.2 Problem justification

Environmental science defines natural resources as the body of natural products, ecosystems and abiotic elements that constitute the earth, as well as the various forms of natural energy (Haslinge 2004). The relationship between human well-being and the natural environment is mediated by services provided by ecosystems. Changes to those services, as a result of changes in the environment, affect human well-being of all people, rich and poor, urban and rural, and in all regions that rely on natural capital (UNEP 2007). Never before, however, have human beings so strongly been caught in environmental challenges as today due to jeopardizing their survival by destroying the natural environment. Today, the global biological biodiversity is in greater jeopardy than it has been at any time in the last 65 million years (Ehrlich, P.R and Ehrlich.A.H, 1981) in Tadesse (2007). The major human induced threats today can be categorized as habitat degradation and loss, overexploitation, and introduction of exotic species. Management of environmental resources in a sustainable manner is, therefore, not only essential, but also prerequisite for our very survival.

To protect, conserve, and save the remaining life giving environmental resources, many countries have established conservation areas such as national parks, wild life sanctuaries and reserves, and controlled hunting areas. But, despite the official protection granted them by governments, National parks world wide face threats from outside their boundaries. These challenges range from logging, mining and livestock grazing to the encroachment of growing human population. Associated activities like poaching and illegal capture or killing of wild life within National Parks produce at least \$5 billion annually (Repanshek 2007). Likewise, the case in the Ethiopian national

parks is not unique. Human induced threats are challenging these conservation areas, where Abijata – Shalla Lakes National Park (ASLNP) is one of the most endangered parks in the country. Settlement, overgrazing, deforestation, farm land expansion, and water abstraction... have all highly influenced the fragile ecosystem of the national park. Based on the current status of the park, it can be said that ineffective management and conservation affected the tourism resources. Therefore, it became essential to study the sources, and the causes of all the problems for better understanding of the general situation in the park, as well as, to promote an integrated management plan for its conservation and restoration program. Different studies conducted in the area so far are found to be incomprehensive for most of them do not touch the internal factors and the problems in the tourism provision. This study incorporates all the major elements and fills the gap in previous assessments in the Abijata-Shala Lakes National Park.

1.3 Objectives and research questions

Nature conservation stands for the management of human use of organisms, or ecosystems, including natural resources (Haslinger 2004). But in Ethiopia in most instances nature conservation is not compatible with most forms of resource uses in protected areas. The overall goal of this thesis is, therefore, to assess the sources of the incompatibility of nature conservation with resource use in the Abijata Shala Lakes National Park (ASLNP) and to see requirements for the realization of park objectives with ecologically sustainable development in the area.

Specific Objectives; this study aims specifically on

- ✓ Assessing the discrepancy between the park objectives and the actual reality(between the ideal vision and the actual practice within the ASLNP)
- ✓ Identifying the effects of the differences between objectives and realities
- ✓ Identifying the geographic sources of the resource conservation challenges
- ✓ Explaining the underlying causes of resource conservation challenges, and
- ✓ Analyzing the effects of the challenges on the tourism attractions

Research questions

1. What are the objectives for the establishment of the ASLNP, and what policies and strategies are set to achieve these aims?
2. What characterizes the interaction between the stakeholders with regard to the use and the conservation of natural resources?
3. What are the most serious challenges of tourism resources conservation?
4. What are the effects of these challenges on the tourism resources?
5. What are the driving forces for the pressure on the tourism resources?
6. What are the requirements to realize the objectives of the park and to bring about ecologically sustainable development in the locality?

1.4 Research significance

The author believes that inadequate study in the Ethiopian Natural Tourism Attractions in general, and in the Abijata Shala Lakes National Park (ASLNP) resources in particular might have partly contributed to their mismanagement. Inadequately investigated problems, that do not enable to take appropriate measures, aggravate the challenges to nature conservation. This study did a thorough investigation on the conservation challenges and somehow pointed out the requirements to realize the objectives of the protected area. Therefore, it would benefit the Tourism, Environment and Development actors, as well as policy makers at all levels of government to bring change on that fragile ecosystem. It would contribute towards the effort of poverty reduction and will serve as an input to attain ecologically sustainable development in the Central Rift Valley (CRV). The literary review, findings and recommendations in this study would improve the knowledge and understanding of nature conservation and management of natural resources for local government bodies in particular. Besides, this study would provide an initial view and supplementary information for researchers who would like to see the problem in ASLNP differently.

1.5 Scope and limitation of the study

The Geographic scope of this study is confined to the ASLNP proper, to investigate the tourism resources conservation and management challenges, to find out their sources, the underlying causes and their consequences on the natural tourism attractions. It is limited to address the research objectives listed in this thesis. Due to resource constraints the study could not address and assess other issues in the national park which could have had, otherwise, vital importance for its betterment.

1.6 Thesis Organization

This thesis is organized in eight chapters. The first chapter is aimed at introducing the study as a whole. Mainly it focuses on the background explanation, briefing the aim and objectives as to why the study is being conducted in that area on that particular research problem. In chapter two the methodology behind this thesis is outlined. It explains what methods are employed to address each research questions, it explains the kind of data generated using each instrument, and looks at how the results are analyzed and presented. The third chapter is all about literature, concepts and approaches. The concept of sustainability served as the basis for the discussion about resource use and nature conservation. It goes through the main literary review that backed the study, and gives a full picture and understanding of the concepts used in this thesis. Further more, approaches toward combining nature conservation with the human dimension of resource use are outlined under this chapter. Discussing the results of the study begins in chapter four, which deals with the social and physical attributes of the study area. It gives description about the physical setup, the various tourism recourses, about park significance to ecology and economy, and about the community and their livelihood activities. The objectives, realities, and the challenges of tourism resources conservation are assessed in chapter five, while the geographic sources and the causes of the challenges are listed in chapter six. The internal management problems in ASLNP, which fueled the external challenges, are discussed in chapter seven. The overall situation and the current status of the park are summarized by way of conclusion in chapter eight. Also in this chapter some points are recommended from the author's point of view as requirements to realize park objectives.

2. Literature Review, concepts, and approaches

2.1 Literature Review

2.1.1 Tourism, Environment and Development

"The environment is where we live; and development is what we all do in attempting to improve our lot within that abode. The two are inseparable" (UNEP 2007).

Tourism is one of the sectors by which to exploit the Environment for development. People, as day and weekend visitors or as tourists, need a range of places where they can go not only to relax, to be informed, or even educated, but also to be entertained. The natural world, by providing some of these places, has become a strong component of the tourism industry.

Tourism has backed the economy of many countries at a time of declining industrial activity and rising unemployment in western society. It has provided alternative forms of enterprise, creating jobs and generating wealth for local economies. It has emerged as one of the world's major socio-economic sectors, and has been steadily expanding at an average rate of about 4-5% annually during the latter half of the 20th c. Many countries are cashing from this sector. Egypt earns about 700 million USD per year from the tourism industry. In Ethiopia, according to some official statistical figures, the income from tourism has increased from 279 million Birr in 1997 to 1.2 billion in 2005. There are around 5 million visitors a year to morocco, where the government wants to double that figure in 2010. According to the UNWTO, International tourism receipts totaled \$ 733 billion or 2 billion USD a day in 2006 (Herbert 1994; UNWTO 2002; BBC focus on Africa 2007).

Moreover, the sector is playing a significant role in creating employment opportunities for citizens of many countries. In North Africa 1 in 8 jobs is tourism related, while it is 1 in 17 for sub Saharan Africa (BBC focus on Africa, 2007). Jobs for local peoples are created from tourism, giving people the chance to learn new skills in tourism services. Foreign currency brought to a region by tourists can be invested for improving local education, health and other services. Construction of tourism infrastructure creates

jobs, and develops skills for local people. Local infrastructure is improved as those are provided for tourists (Pearce 1989; [http:// Encarta.msn.com](http://Encarta.msn.com)).

However, there are also disadvantages from tourism. Profits from the sector could go to foreign companies, such as tour operators and hotel chains rather than to local communities. For instance most of tourist hotels, resorts and restaurants in Africa are owned by western companies, where 80% of the income goes back to the west. Foreign companies may bring foreign workers to do the skilled jobs, so that local people only do the low-skilled and poorly-paid work. The communities' traditional work patterns might be seriously affected, resulting in the abandonment of agricultural occupations. House prices are pushed up when foreign companies and investors buy property for hotels and holiday homes. This often makes houses too expensive for locals. Important projects for local communities might be also side-lined as infrastructure developments are more focused on tourists (BBC focus on Africa 2007; Verbole 1995, Crick 1996 in Ratz 2000).

Pollution and disruption to wild life habitats and to wild life behavior could also occur if there are too many tourists. '*Honey pot*' is a name given to a tourist site that attracts a lot more tourists than the local infrastructure can cater for (Repanshek 2007). Over tourism which occurs at a site of natural beauty or areas of historical significance leads to problems such as littering, congestion on roads, lack of parking facilities, and foot path erosion. To minimize the negative impacts of over tourism, some African countries began to limiting the number of visitors to their natural attractions for sustainability. In Tanzania, experts say" *while there could be as many as 1.5 million tourists a year visiting the country, any more than that could lead to the degradation of the very thing that attracted the tourists in the first place , the country's savannah*".

Apart from the obvious and visible effects on economy and ecology, tourism brings social and cultural changes in host societies, including changes in value systems, traditional life styles, family relationships, individual behavior or community structure (Ratz 2000). In a very useful review of the sociology of tourism, Cohn (1984) in (Pearce 1989) identified the sector as an "*acculturative process and a form of*

neocolonialism". During their stay in the destination, tourists interact with local residents and the outcome of their relationship is changes in the host individuals' and host community's quality of life, value systems, labor division, family relationships, attitudes, behavioral patterns, ceremonies and creative expressions (Fox 1977; Cohn 1984; Pizam and Milman 1984) in (Ratz 2000). Some tourists may act against the local custom and tradition, diffuse culture, and disturb the life style of the first people. Citizens of some countries say" *tourism brings only illnesses and social deviance* "(BBC focus on Africa 2007). In general the interaction between Tourism, Environment, and Development can be demonstrated by the following diagram, which shows how one influences the other.

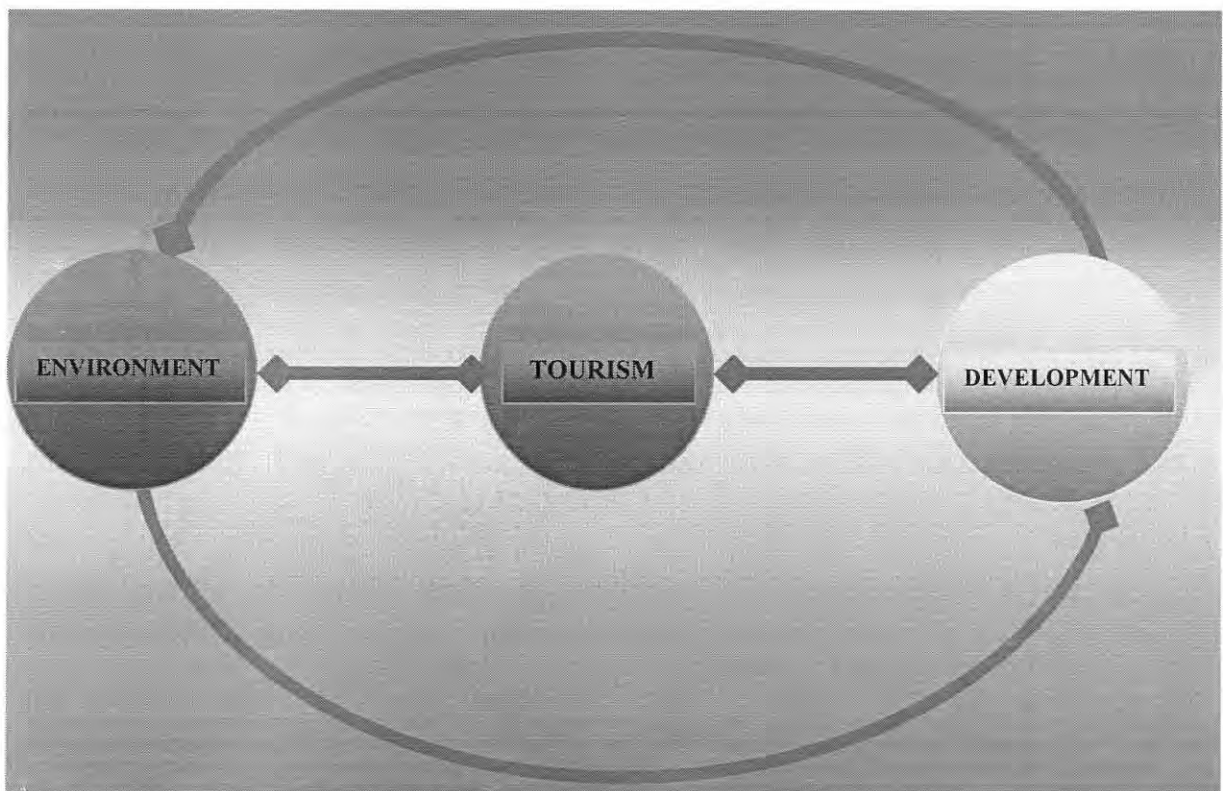


Fig. 1, *Tourism, Environment and Development Nexus*
Source: the author

2.1.2 Ecosystem management and Environmental degradation

Ecosystem management; an ecosystem is a biotic community together with its physical environment, considered as an integrated unit (Bedru 2006). Heywood et al (1995) in Haslinger (2004) on his part defined ecosystem as "a dynamic complex of plant, animal, fungal, and micro-organism communities and their associated non-living environment interacting as an ecological unit".

Formal attempts to define the term ecosystem management proliferated in the late 1980s. Clark and Zaunbrecher (1987) in Burnside and Rasmussen (1997) defined Ecosystem management as "*Management of natural resources using systems wide concepts to ensure that all plants and animals in the ecosystem are maintained at viable levels in native habitats and that basic ecosystem processes (e.g., nutrient cycling) are perpetuated indefinitely.*" Grumbine (1994) in Bromley (1999) presented a list of 5 objectives within the overall goal of ecosystem management: (1) maintain viable populations of all native species in situ; (2) represent, within protected areas, all native ecosystem types across their natural range variation; (3) maintain evolutionary and ecological processes; (4) manage over periods of time long enough to maintain the evolutionary potential of species and ecosystems; and, (5) accommodate human use and occupancy within these objectives.

Ecosystem management requires the skillful use of ecological, economic, social, and managerial principles in managing ecosystems to produce, restore, or sustain ecosystem integrity and desired conditions, uses, products, values, and services over the long term. It recognizes that people and their social and economic needs are an integral part of ecological systems. This type of management requires both the community and agencies to develop "people skills" for effective implementation. It involves short and (or) long term measures undertaken by concerned body so as to gain more sustainable use of natural resources by identifying the socio-economic and institutional variables that affect land management interventions (Blaike and Brookfield 1987; Andres, 1993; all in Abdela 1996).

Model for ecosystem management

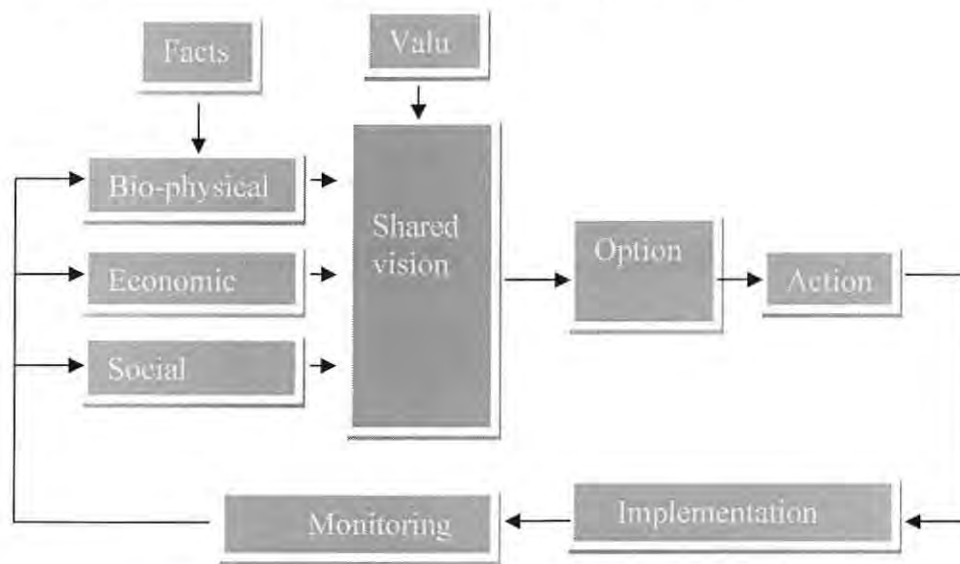


Fig. 2, model to develop effective ecosystem management plans
Source; Burnside and Rasmussen, 1997

The concern for managing natural resources dates back to the 1970s, since the emergence of alternative development approaches. Different actors/stakeholders have attempted to treat the environmental problems with simple, neat solutions focusing on biological and/or technical solutions and neglecting the social dimensions. Contrary to such views, however, resource management comprises ecological, technical, social, economic, legal, and political aspects (Castren 2005). Taking this under considerations, Karki (2001) defines resource management as: *"The process, by which resources are allocated, regenerated, managed, and conserved over time and space to meet the needs and aspirations of humankind. It involves an interaction of three major elements; the physical resource base (land, water, forests, wildlife, etc.); the production system (a mix of technologies and productive activities), and the social regulation (laws, rules and principles) that govern access to resources, their distribution and use"*

In general there are two broad perspectives dictating resource management so far. These are the modernization perspectives and the post modernist approaches. The

basic assumption behind the modernization approach is that farmers are the cause of natural resource depletion such as deforestation, soil degradation and overgrazing. Thus, it recommends the exclusion of people from forest to protect trees and wildlife, and the adoption of externally developed conservation technologies (Pretty and Shah, 1997). Most African forest and national parks management systems have been dictated by modernization approach. Government policies have been influenced by this approach, only focusing on biological values of resources and ignored the traditional conservation mechanisms and the people who depend on such resources (Berkes, 2004). Local communities do not participate in the management, as the basic concept in their design and management is to protect from them. As a result, most past conservation efforts of many countries ended up in little success. They couldn't bring lasting effect; rather, in most circumstances have aggravated resource degradation.

In response to this, alternative approaches to resource management have been developed starting from mid 1980s and mid 1990s (Craney and Farrington 1999). Post modernism, the new approach to resource management rejects the "meta- narratives or large scale plans, technologies or theoretical interpretation that purport to have universal application" which were made so far in modernization framework (Pretty and Shah 1997). This new approach to resource conservation rather incorporates and glorifies the term 'participation' of particularly local people in natural resource management (Pretty and Shah 1997). Hams (1994) in Ginjo (2001) similarly noted that local use and management of natural resource should underline the application of the participatory development approach. That means decision making power and responsibilities should be entrusted to the local population as far as possible and feasible, as the people should have an important share in the benefits of their efforts.

The participation of affected community in the planning and designing of natural resource management technology enables to incorporate indigenous natural resource management knowledge to the intervention package. The new post modernist approach is generally dictated by the principle of holistic and integrated approaches for sustainable resource management (Karki 2001) which is part of a great transition

towards what theorists call 'new conservation'(Berkes 2004). Participatory approach in resource management is believed to bring many benefits that include enhancement of efficiency, transparency and accountability, empowerment of the poor and disadvantaged, sense of belongingness and capacity to learn and act (World Bank 1994).

In the case of Ethiopia, the past government agencies were not willing to implement programs encouraging public participation to attain development (Merera 2006). Weldeamlak (2003) in Debele (2007) added that in Ethiopia rural people are often considered ignorant of land management, and not allowed to give comments on the introduced conservation systems which are mostly alien and strange to them. The farmers on their part are dissatisfied with the systems due to the failures of the envisaged programs either to address their problems or fit to the existing local farming practices. This non participatory approach could not bring about either sustainable development in the local communities' livelihood, or environmental protection.

The other major impediment for environmental management and administration in Ethiopia is the lack of coordination and overlapping of responsibilities among pertinent government agencies. This has been the major drawback to tackle environmental problems, especially resource degradation in the country. The repeated restructuring of government institutions involved in natural resource management and environmental protection has also contributed to failures in natural resource management (EFAP 1994; Getachew, et al, 2001; Demel 2001) in Debele (2007).

Property rights regime; Institutional arrangements like property rights regime have also important bearings on resource conservation and management. This is because some property right types provide incentives for such activities while others not. Bromley (1991) defines property rights as institutional arrangement to govern access to land and other resources, as well as the resulting claim of the title holder on those resources and the benefit they generate. Property rights regimes define actors' rights of access and control to property (Yeraswork 2001). They are, hence, socially defined entities.

The property rights regime literature examines the management of natural resources by local users and the conditions under which self-governance may be successful. Unclear, loosely defined and insufficiently enforced land management rights of national parks and forest conservation areas are some of the bottlenecks hindering proper natural resources management and conservation activities. Frequent conflict and excessive use of resources emanate from such vague ownership arrangements (Bedru 2006). Sustainable resource management is dependent on the establishment of a well-specified property rights regime and on ensuring the consequence of the regime with its ecological and social context.

Economists traditionally distinguish between four broad types of resource management regimes: state property regimes, private property regimes, common property regimes, and open-access regimes (Bromley 1991). In a state property regime, ownership and control of resources rest with the state, which may directly manage and control the use, or grant organizations or individuals Use rights over them. Private property regimes are characterized by the sole control and use of resource by an owner. Under the common property regime, a group of individuals, such as a group of people from the same village, tribe, or family, hold ownership rights of resources. The behavior of all members of the group is governed by accepted rules over the use of resources and the distribution of its benefits. Common property is fundamentally similar to private property in regards of the fact that non-owners are excluded from decision-making and from using resources. Thus, common property is essentially private property for a specific group. Open-access regimes are characterized by the absence of any kind of property rights; the resource is available to any individual who captures it first. The concern of this study is, therefore, resource management under *state property regime*.

Environmental degradation; although, the concept of degradation varies according to the interpreter's background, the explanation given by Feyera (2006) seems more comprehensive and elaborative. He explained the term as "*the loss of land productivity and the associated ecosystem through various processes like*

erosion, deforestation, depletion of nutrients, deterioration of soil structure, and water, etc". He adds the complex phenomena of environmental degradation by explaining its occurrence under diverse social and environmental conditions, and as it poses disturbance on the socio-economic condition of society and all the stakeholders.

According to Kundanlal (1997), the major causes of environmental degradation are: character of development, technological change, massive mass poverty, large and rapidly growing population, and market and policy failures. Population is an important driver behind environmental change, leading to increased demand for food, water and energy, and placing pressure on natural resources (UNEP 2007). The environment can not accommodate indefinitely the tremendously rising human and livestock population. As a fast growing population exhaust the nearby resources, it is inevitable that through time arable and grazing land-hungry farmers and pastoralists encroach into marginal areas and forest lands. Particularly, there is a growing concern that much of sub-Saharan Africa's natural resource base and ecological environment are deteriorating mainly due to high population growth combined with unsustainable consumption pattern (Gibson 2000). The main problems related to environment in the region are the loss of natural vegetation because of accelerating deforestation, intensive cultivation over grazing, land degradation, and drought. The cumulative impact of all those challenges is loss of habitat, biodiversity, stored carbon, soil water retention and regulation, disturbance of biological cycles and food web (UNEP 2007).

Nature has provided Ethiopia with magnificent sceneries, various species of fauna and flora coupled with fascinating landscapes. The country is said to be one of the most bio-diverse country in Africa with exceptionally high level of endemism. This assumed to be the result of large diversity of ecological conditions determined by topographic variations (Solomon 2004). However, for many reasons the country is loosing its natural resources, including its fauna and flora, caused by environmental degradation, where the country finds itself in an environmental crisis (Tewoldeberhan 1988, in Almaz 1996). According to the explanation given by Muluneh (2006) and Dessalegn (2001) in Debele (2007) some Ethiopian academicians and most government authorities associate the environmental degradation with the growing of

population. However, such conclusions are unrealistic and do not fully address the real cause of the problem. Dessalegn (2001) even argue that *"the worst enemy of environmental protection program in this country was not peasant agriculture, nor population pressure, but the government itself"*, for it does not involve the community in natural resource management.

Ermias (2003) on his part blames both the fast growing population and government policies to have caused the problem. He categorized the causes of environmental degradation in Ethiopia as proximate and underlying factors. In his proximate causes of degradation he included; increased cultivation on steep slopes, loss of vegetation cover and declining use of fallow, lack of adopting soil fertility conservation practices, etc. The underlying factors for degradation are; population pressure, poverty, food insecurity, absence of appropriate/effective policies and institutional arrangements, poor governance, entrenched bureaucracy and corruption. The consequences of environmental degradation in Ethiopia are many, divers and complex. According to Ermias (2003), some of them are the loss of soil fertility, food insecurity, displacement of people, and forest degradation which enhances loss of biodiversity. In many instances, areas that were classified as forest land 30 years ago have to be called bushy areas in the later times (Hurni and Ludi 2000).

The Challenges of Nature Conservation in National Parks

In Ethiopia, the demand for agricultural land, fuel wood, and grazing land and the resultant deforestation, desertification, and unsustainable land use is leading to resource degradation in many National Parks (Almaz 1996). They are facing problems like; deforestation for charcoal making, fire wood collection, clearing of habitats for cultivation, permanent settlement and overgrazing. The Abobo large scale mechanized farm was established within the boundary of Gambella National Park resulted in the devastation of wildlife habitat. Local people use fire to clear vegetation for agricultural land. This uncontrolled fire has been changing the vegetation type and species composition as the case in Omo National Park (EWCO, 1993). As the largest proportion of household energy consumption comes from the forest, this demands in

destroying the forest cover. For example, the heavy over utilization of the forest of the Siemen Mountain National Park for wood takes place inside the park. The grazing pressure has also been a chronic problem for many national parks. The Awash National Park has been experiencing serious problem. Documentary analyses of audiovisual sources indicate that 70% of the Park is inhabited by pastoralists namely Kereyu, Ittu and Afar (ETV 2003). These groups of people have been using the park as a grazing land for their cattle, with deforestation, the combined effect of which has resulted in the decline of Oryx population in the park from more than 4 thousand to less than one thousand in 40 years time. This number keeps on declining that may approach to extinction in the near future. This is also true for other National Parks in Ethiopia. Equally serious problem, that is threatening the wild life in the parks, is dissemination of diseases from domestic to wild animals. In 1999/2000 wild life in Mago National Park faced this problem, where over 2,260 wild lives, which amount to 27 million ETB in legal hunting, died of a disease called anthrax (ETV 2004).

The extreme case is that resource degradation in the parks is becoming a source of conflict between the near by communities. For instance the conflict between the Surma and the Bume pastoralists in the Omo National Park (EWCO 1993) illustrates this case. Illegal hunting has also been a serious problem for many national parks. Many residing communities used to hunt wild animals to supplement their diets and for commercial purpose. Furthermore, for many cultures killing wild animals is considered to be a sign of bravery and pride (Solomon 2004). The implications of such habitat destruction and fragmentation are diverse. It is resulting in the migration and death of the wild lives, which implies again the loss of the major attraction resources in wildlife tourism.

2.1.3 Environmental instruments and Conservation Measures in Ethiopia

Environmental policy and legislation; although the evolution of environmental policy has been pointing in the direction of sustainability concepts for many years, the path has seldom been straight and easy. Ethiopia has a long history of environmental

legislation, even if the more formal ones emerged during the reign of emperor Menelik the second. Since then various legislations have been enacted with the view to reduce the ever increasing resource destruction. Although many laws were made and various institutions were established for the purpose of implementing those laws, they were unable to stop or even to reduce the massive destruction of the natural environment (Melesse and Mohammed 2007) in Tadesse (2007). Even now there is a good constitution with regard to protection of the natural environment. Recognizing the serious impact on the natural resources and the threats it poses on the future development of the country, the Federal Democratic Republic of Ethiopia issued an environmental policy on April 2, 1997 (Gedeon 2003). The policy has an overall objective of improving the livelihood of the people through sustainable development using sound natural resource management. It also indicates the government's commitment to establish protected areas and to conserve their ecosystems and habitats. In addition it gives emphasis to the importance of local community participation in the planning and management of protected areas, and sharing of benefits obtained from conservation (Zewdu and Yemeserach 2003, in Debele 2007).

The 2005 wild life development, conservation and wild life policy and strategy also deals with wild life development and protection, utilization of wild life resources, participation of the community and investors in the sector, and conservation education and information network (MoARD 2005). Especially it gives due attention to benefit sharing. It says "*The income secured from wild life resources will be used to benefit local people, wildlife conservation endeavors, as well as for the overall growth of the national economy.*"

Several international instruments recognize the role of traditional people in environmental protection. The convention on biological diversity is among the binding documents adopted at the 1992 Rio-conference and executed in 1993. The convention was ratified by more than 150 states including Ethiopia. Despite what is stated in the environmental policies of Ethiopia, the prevailing conservation strategy is still traditional, implementation of the policies seems very slow. The local participation and benefit sharing strategies of the policies seem to remain on paper, while

enforcement of conservation laws and strategies that stimulate public support to increase benefits to the local people seem to be successful in many areas through benefit sharing mechanisms (Almaz, 1996). Ethiopian National Parks have no such developed mechanisms. Most of the parks' management has not yet been institutionalized; community participation in the conservation endeavors is still little, revenue from the parks do not trickle down as benefits to the community, and environmental education is still low. Instead, the different laws and strategies have often had a negative impact on the livelihood of the majority of the local people. Pastoralists in the Awash National Park, for instance, get no benefit from the park. It rather curtailed their access to the Awash River for watering their cattle, and they forced to pay heavy fees when their cattle are caught within the Park boundary. In general, the features of the Ethiopian national parks conservation schemes under the past two regimes were restrictive and had damaging impact on the livelihood of the people living in and around the national parks. This situation has provoked the local population to invade and occupy the protected areas so as to show their resentment to such unpopular conservation schemes envisaged by the governments (Almaz 1996; Dessalegn 2001; Zewdu and Yemeserach 2003).

Biodiversity conservation in Ethiopia

The philosophy of wild life conservation in Ethiopia is based on the principle that " *the wild life has the right to exist, and that the wild life resources are a proud national heritage to be conserved and developed for the continued benefit of the present generation and for the generation to come* " (MoAFWCDD 1980). This needs the rational use of the environment to provide the highest sustainable quality of life for humanity. The world conservation strategy document in Dasman (1995) defines conservation as "*the management of human use of the biosphere so that it may yield the greatest sustainable benefit to the present generations while maintaining its potential to meet the needs and aspiration of future generations.*" Different criteria may be used to identify areas of high priority for conservation. But the most identifiable areas for biodiversity are those ecosystems and habitats that contain species that occur no where else (endemic species), as well as ecosystems and

habitats that are taken to be representative samples , major or rare ecosystems, or which contain large numbers of genetic lineages of economic value. The most known types of priority areas for conservation of biodiversity include: Endemic Bird Areas (EBA's), Centers of Plant Diversity, Biodiversity Hot Spots, Mega Diversity Countries, and centre of crop origin and diversity regions. Because of exceptionally high level of diversity and uniqueness of its flora and fauna, and the threats on them, Ethiopia is included for all types of Global priority areas for biodiversity conservation (Tadesse 2007). Specifically, Conservation and Management of wild life deals with preservation of the wild life, preservation of the endangered species, protection of their habitat, protection from diseases, preservation of their ecological balance and impact, regular wild life census and monitoring, prevent poaching and ensuring maximum protection for wild life, range and habitat management practices, wild life behavior studies, and the preparation, revision and updating of wild life management plans.

There are always reasons for conserving wildlife and plants in a particular area. According to Cole (1994), the main reasons for the conservation of species diversity is their economic use for human basic needs such as health, social well- being, and aesthetic satisfaction. In a more detail manner, Gilg (1985) identifies major reasons of conservation. According to him, conservation serves as: a contributory component of ecological stability, a monitor of environmental pollution, uses for the provision of source of renewable biological resources, for the maintenance of genetic variability, for the needs of scientific research, for its recreational values, for environmental education, for the economic value of its resources, and provide future generations with a wide choices of biological capital. To meet these objectives, the usual tradition has always been the establishment and management of National Parks and other protected areas. They are seen as the cornerstone of the world's conservation efforts. National parks are however, late comers to the protected area movement. For thousands of years people have been setting aside and protecting areas of natural value. Some Arabian hemas are more than 1000 years old, as are the sacred groves and temples of Asia (Child 2004). They are usually set aside by local communities to conserve environments of value to them.

In Ethiopia, until 1965, there was only a hunting license department in the forestry division of the ministry of agriculture (MoAFWCDD 1980). In 1965 the hunting department was named wild life conservation department. In 1971 the wildlife conservation organization was established to look after wildlife conservation. Wild life conservation programs began to emerge after the 1974 revolution, which over threw the imperial regime. The provisional military government declared the following proclamation. *"It should, however, be emphasized that the conservation of wildlife, bird life etc. ..., particularly of the rare species....., will be viewed primarily as national objectives in their own right, and not only as a matter of attracting foreign visitors. This task of preservation will be actively pursued by the state"*. Based on this proclamation, the forestry and wild life development department was established.

Ethiopia is a biodiversity rich country with more than 850 bird species, of which 23 are endemic, and more than 260 mammal species, 7 of them are endemic. The existence of great altitudinal variations and climate also made the country to be a home of different species of plants (MoCT 2006; Theodros 2004). To maintain such biodiversity, conservation areas have been established in the country. The justification of establishing such areas in Ethiopia lays on the argument that; they contribute to the maintenance of the natural ecological process upon which man and the natural ecosystem depends, they represent a store of genetic material that contains unrealized potential for the future, the different species of fauna and flora have the right to exist, and they potentially contribute to the national economy (EWCO 1993).

In Ethiopia Serious attempts to delineate conservation areas started when United Nations Educational, Scientific and cultural Organization (UNESCO) personnel visited the country from 1960-1965 and gave recommendation for the establishment of protected areas. Accordingly the first two, Awash and Siemen mountains, national parks were established in 1966. Since then, different protected areas have been established in different parts of the country. Ethiopia now has 11 National parks, 13 wild life reserves and sanctuaries, and 18 controlled hunting areas (MoCT 2006; Theodros 2004; Almaze 1996).

Table 1, List of Ethiopian National Parks

No	Name of national parks	Regional location	Year of establishment	Area (in sq km)	Attitude (in meter)
1	Awash	Afar/Oromya	1966	756	750-2700
2	Siemen Mountains	Amhara	1966	225	750-4620
3	Omo	SNNPRS	1966	4,068	450-2528
4	Bale Mountains	Oromya	1970	2,470	1500-
5	Abijata-Shalla Lakes	Oromya	1970	887	1540-
6	Gambella	Gambella	1973	5,061	400-800
7	Nech Sar	SNNPRS	1974	515	1100-
8	Yangudi Rasa	Afar	1976	4,700	400-1460
9	Mago	SNNPRS	1978	21,620	450-2528
10	Mazie	SNNPRS	1997	202	-
11	Chebera-Churchura	SNNPRS	1997	1190	-

Source: Ministry of Information, 2006

2.1.4 Economic and Ecological importance of National Parks

In 1903, the US President ,Theodore Roosevelt ,dedicated a monument on which is written; ' for the benefit and enjoyment of the people, yellow stone National park, created by an act of congress ,march 1,1872'(Child 2004). Thus was born the modern concept of a national park, set aside for the benefit of people. Scholars like Sandura (1987) and Cardine (1990) have conceptualized three basic objectives that should be fulfilled by national parks namely; protection, entertainment, and research and education. According to them for educational purpose national parks offer the opportunity of examining the fauna and flora and the dependence that exist among them. National parks serve the purpose of educating the public and introducing practical knowledge of the ecological principles which is the essence of the school environmental education programs.

They also offer different alternatives for the question of the natural resources conservation by relating to the rational use of wild life. Furthermore, national parks attract many tourists to observe, entertain, and learn more about the wild life and to become more directly involved in nature conservation. Most national parks have a dual role, as offering a refuge for wild life and serving as popular tourist sites to

generate revenue for national economies. Visitors spent 10.6 billion dollar in local regions around national parks in 2001 (<http://encarta.msn.com>). The direct effect of this spending on community was 3.1 billion dollar in wages and salaries. Protected area tourism in the USA and Canada had an economic impact of between 236 and 370 billion USD in 1996.

Moreover, national parks have great ecological significance. More land, ecosystem and biodiversity are protected by national parks. National park establishment involves water, soil, and vegetation conservation, which benefits the entire ecosystem. National parks in Central America protect lush tropical rainforest, with a seemingly infinite diversity of plants and animals. In Costa Rica, national parks, reserves, wild life refuges and corridors blanket more than a quarter of the country. Bolivia's Madidi national park, with an area of 4.7 million acres, a bit smaller than New Jersey (state of US), is claimed to be one of south America's most biologically diverse rain forest. *"The various habitats in the national park and their interactions nurture distinct flora and fauna, making the park one of the richest in the diversity of plant and animal life in the continent"* (National geographic, March 2000). Zimbabwe's largest national park, huange, is home to more than 2000 elephants and other precious wild lives. Ethiopian national parks, too, are major tourist destinations and homes for the country's wild lives. They are established to protect species, sites and habitats of special scientific, educative, and receptive interest or a natural land escape of great beauty (MoAFCDO 1980).

Table 2, Tourism receipts of Ethiopia

Year	Receipt in million Birr	% growth
1997	279.0	-
1998	225.0	2.4
1999	252.0	2.8
2000	578.8	102.4
2001	631.8	8.5
2002	676.1	4.5
2003	778.0	16.6
2004	991.2	27.0
2005	1.2 billion	17.7

Source: Ministry of Culture and Tourism, 2006

They are serving as sanctuaries for most of the endemic fauna and flora species of the country. As tourism resources, together with other historical and cultural attractions, national parks have been contributing significant amount to the GDP of the country through income generated and employment created in tourism.

2.2 Concepts and Approaches

2.2.1 The concept of Sustainable Development

By far the most common usage of the word sustainable is in combination with the word development, the idea of which dates back to the 1850's. In 1857 John Stuart Mill discussed the idea of sustainable development under the label of the "stationary state", i.e. a steady-state economy, by which he meant a condition of zero growth of population and physical capital stock, but with continued improvement in technology and ethics (Daly 1996). Mill recognized that "*a stationary condition of capital and population implies no stationary state of human improvement*"; and that in fact there would be more likely hood of "*improving the art of living when minds ceased to be engrossed by the art of getting on*". In today's meaning Mill was arguing for sustainable development; i.e. development without growth or qualitative improvement without quantitative increase.

The term sustainable development was formally introduced in the world conservation strategy (IUCN 1980), in Haslinger (2004), and more popularized by the World Commission on Environment and Development in 1987. Since then it has become the "guide star" of international efforts to reconcile economic and ecological imperatives. In 1987, the world commission on environment and development chaired by the Norwegian prime minister Gro Harlem Brundtland publicized the approach of sustainable development in the report "*our common future*". This report significantly influenced the international debate about development and environment. The commission perceived sustainability as a "*development that corresponds to the needs of today's generation without endangering the options of future generations to satisfy their own needs and to choose their own life style*", which means development which does not impoverish the future. According to Wiesmann (1995) in Haslinger (2004)

sustainable development has three main components namely: economy, environment and society. The land use system builds the initial focus point of effects to evaluate the sustainability of the use of resources. Since the land use system is embedded in a dynamic socio-economic and socio-cultural system, the use of natural resources is subject to a temporal and spatial dynamic.

The three dimensions of sustainability may be assessed independent from each other; the effects however are not independent. Therefore, changes in one dimension cause changes within the other dimension. These changes do not have to be parallel. Wiesmann points out those especially positive changes in the economic dimension often lead to negative changes in the ecological dimension. This means that sustainable development is conflicting so that the changes in one sphere have to be balanced with the changes in the other sphere.

The focus of this study, therefore, is set on the interaction between stakeholders with the natural tourism attractions inside the ASLNP. Many of these interactions are affected by the land use system which is situated in between the three spheres; economy, society, and ecology.

The land use system focuses on consumptive elements (such as the use of natural resource by local resource users) and none-consumptive elements (like the conservation of nature and natural resources by park administration, and the use of tourism attractions by tourists). The consumptive use of resources is not, however, compatible with nature conservation and natural resources management in the park, while it is only if the two types of land use (resource use and conservation) are integrated that they can bring about sustainable use of resources.

limited inequality in a single time period. But it can be also applied over time if people guided by the idea *"the present people collectively shouldn't be too rich, if that implies the future people will be too poor. Or conversely, present people shouldn't be made too poor for the purpose of making future people richer than they need to be"*. He argues *"it is meaningful to keep the rich from leaning too heavily on the poor, and the present generation from leaning too heavily on future generation. It is also relevant to keeping human beings from leaning too heavily on other creatures whose habitats must disappear as we convert more and more of the finite ecosystem into a source for raw materials.... Therefore, we will not be able to bring sustainable development without insisting limits to inequality"*. The elimination of poverty requires recognition of limits, not faster growth, limits to growth in per capita resource use, limits to population growth, limits to the growth of inequality. Refusal of these limits result in growth beyond the carrying capacity of the earth which leads again to degradation and pollution of the environment.

2.2.2 The Concept of Sustainable Tourism

As tourism becomes increasingly important to communities around the world, the need to develop tourism sustainably also becomes a primary concern. Exploring Communities' culture is a basic reason for tourists to travel. Communities shape the natural landscape which many tourists consume. Sustaining the communities has therefore become an essential element of sustainable tourism. The rationale of sustainable tourism development usually rests on the assurance of renewable economic, social and cultural benefits to the community and its environment. Without community sustainability, tourism development can not be expected to be sustainable (Richards and Hall 2003). For this reason, as Taylor (1995) argues *"The concept of community involvement in tourism development has moved nearer to the center of the sustainability debate"*.

The concept and approach of sustainable development is important in tourism. The UNWTO has defined sustainable tourism as follows: *"sustainable tourism development meets the needs of present tourists and host regions while protecting and enhancing opportunities for the future. It is envisaged as leading to management*

of all resources in such a way that economic, social, and aesthetic needs can be fulfilled while maintaining cultural integrity, essential ecological processes, biological diversity, and life support systems". This can be further elaborated as "the natural, historical, cultural and other resources for tourism are conserved for continuous use in the future, while still bringing benefits to the present society" (UNWTO 2002). For sustainable tourism development, the preservation of the natural environment must be grounded in the communities and societies which exploit and depend upon it. Most natural environments are culturally constructed (Richards 200), and local communities and economic systems may hold the key to their survival or destruction. Bramwell and Sharman (2000) argue that sustainable tourism should enable members of the community living in a tourist destination to participate in decision- making about tourism activity which affects their lives.

Approaches to sustainable tourism; there is no universal approach to sustainable tourism among tourism planners. Mention is made here of four features of tourist destinations, which are likely to influence local approaches to sustainable tourism. **First**, tourist destinations differ in the extent to which tourism is considered to depend directly and overtly on the maintenance of a high quality environment, whether natural, man-made, or socio-cultural (Bramwell 1999). **Second**, the stage of development of a tourist destination is likely to influence the scale and types of tourism considered appropriate by planners (Butler 1980). **Third**, there are differences between tourist destinations in the diversity and mix of stakeholders affected by tourism, which can affect the range of views and also the relative difficulty of developing appropriate mechanisms to incorporate divergent views (Williams and Gill 1994). **Forth** related issue is the political and institutional culture affecting the tourist destination, which may favor some stakeholders over others and may encourage or hinder wide participation in the planning process (Amin and Thrift 1995; Wahib 1997).

Community participation in tourism planning; there are many potential benefits if the community living or working in a tourist destination is involved in tourism planning. Importantly, political legitimacy will be enhanced if this involvement means

conservation. CBNRM is described as *“a creative process that relies on adaptive learning and action involving people and organizations that share and use natural resources”*. It differs from traditional policies in that it works with the local communities most directly involved with natural resource management. CBNRM recognizes that those people have an intimate knowledge of the local resource base and are motivated to ensure it remains productive if they can be assured of benefiting. It is also called ‘community conservation’, which Adams and Hulme (2001) define it as *“Those principles and practices that argue that conservation goals should be pursued by strategies that emphasize the role of local residents in decision making about natural resources”*. They contrast this instance with the earlier traditional conservation strategy *“fortress conservation”* which sought to reserve places for nature, and to separate humans and other species. The objectives of CBNRM are two-fold.

1. To ensure that adequate land and local support is secured for biodiversity conservation.
2. To contribute to poverty alleviation in local communities living in landscapes with wildlife (Murphree 1993; Wright 1993; Western 1994).

Many Southern African countries have been implementing this new approach of conservation and Natural resource management. According to Jones and Murphree (2004) CBNRM activities across the region have typically focused on: Developing enabling policy and legislation, Institutional development, Capacity building, and Resource monitoring and management. The results of CBNRM in terms of ecological impacts have been considerable in these countries. It has made conservation a legitimate and attractive form of land use.

According to Child (2004) in Botswana, Namibia and Zimbabwe wild life conservation has increased in line with increasing benefits to land holders and communities as a result of CBNRM: It secured additional habitat for conservation, It helped rural communities to tolerate the negative impacts of wild animals, It has reduced poaching and unsustainable harvesting of natural resources, It has led to Game Re-introductions, It has created mechanisms for communities to enjoy the existence value of wildlife, It provides opportunities for supporting existing state- run protected

areas, and has generated income for communities with high-value wild life and tourism assets. Therefore CBNRM policies seem vital for sustainable national park management, where the Economy, Society and Ecology benefit equally.

The constitution of the federal democratic republic of Ethiopia (1995) lays down the general legal framework for the conservation of the environment and natural resources of the country. The wild life development, conservation and utilization policy (2005) deals with *'wild-life development and protection, utilization of wildlife resources, participation of the community and investors in the sector, conservation education and information network* (MoARD 2005). A target of this policy is to involve local communities in participatory benefit sharing through wildlife management areas to increase conservation incentives. But the work on the ground is very different. Community participation in park management is none existent.

There is a huge gap between the CBNRM approach and the conservation system of protected areas in Ethiopia, which resulted in many challenges on the conservation zones. ASLNP is one of them, which suffers from human induced threats. Ineffective management and conservation challenges have put the park in Ecological crisis. Hence, investigation of the key problems and assessment of the sources of the incompatibility of the consumptive and non-consumptive land uses in the park's ecosystem are the aim of this study.

2.2.4 Analytical framework

Conservation mainly focuses on the protection of biodiversity and natural resources. The major causes of biodiversity decline are habitat loss and degradation. These processes constitute threats to sustain biodiversity with conservation. The root causes of biodiversity loss are found in the socio-economic and political context that motivates local action. *"Conservation is inherently political, and the most significant challenges facing conservation efforts are not biological, but social and political"* (Brandon 1998). As a consequence, threats to biodiversity are over-determined, since they have many causes and addressing only one or a few of them will not result in sustainable conservation.

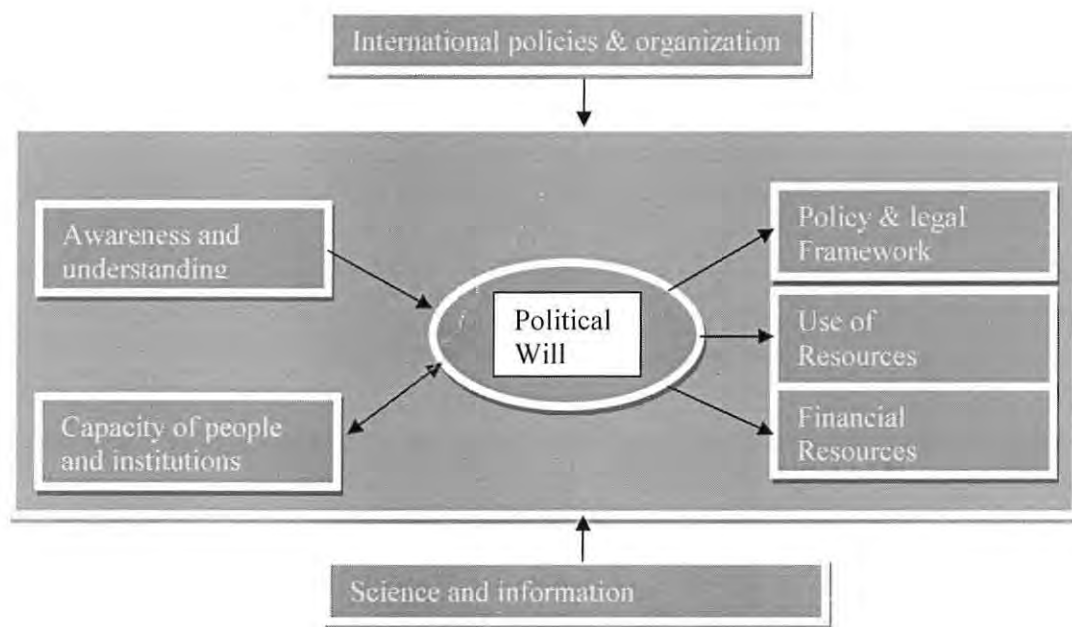


Fig. 4, factors that influence sound conservation of biodiversity and natural resources (according to Smith 2000 in Haslinger 2004)

The figure above shows the factors that influence conservation as assessed by Smith and Martin (2000) in Haslinger (2004). According to them, the central and thus critical ingredient is political will to conserve biological diversity and natural resources. Political will is essential not only on the national, but also on the international, regional, and local levels. Key factors that influence the political will are awareness and understanding of the value of biodiversity and the benefits of its conservation. Capacity of people and institutions are important to influence policy, engender commitment to conservation, effectively channel resources, and to carryout actions in the field.

Institutional capacity however is also affected by the degree of political will. In addition, three other important ingredients to conservation are largely the product of adequate political will. The policy and legal framework provides incentives for or against conservation. Political will influences the extent to which the value of biodiversity and the services provided by robust biodiversity ecosystems are real and

immediate. Political will is also crucial for the adequacy and diversity of financial resources allocated for conservation. Finally, two additional factors impact in these other six in a cross-cutting way. The international context of policies, commitments, and organizations is a very important determinant of conservation nationally and globally. The availability of scientific data and reliable information is essential ingredient to support all of the other ingredients needed to achieve sound conservation (Smith and Martin 2000 in Haslinger 2004).

3. Research Methodology

3.1 Sample Site description

One of the defining geologic features of Ethiopia is the Great Rift Valley, slicing through the eastern part of the country from the Red Sea to Kenya. In the floor of the valley are a series of deep lakes, which have become a great attraction for birds and visitors. In the central rift valley two lakes, Abijata and Shalla, with the surrounding wood land and grass land form a national park. It is set aside to protect the two rift valley lakes, and the many aquatic bird species that use the lakes as feeding, nesting and breeding sites (Fekadu and Rezenom 2002).

Abijata Shalla Lakes National Park (ASLNP), established in 1970, is found 200 km south of Addis Ababa. It is located in west Arsi and East Showa zones of the Oromya Regional State. It is situated in the land area of three districts namely; Arsi Negelle, Shalla and Adami tulu Judo Kombolicha. The three districts have a total of 128 Peasant Associations (PAs), of which 15 of them fall within the boundaries of the ASLNP fully or partially with a direct impact on the tourism resources. Eight of the 15 PAs are from Arsi Negele district from which the two sample PAs for this study are selected. Based on the survey conducted by the local districts for agricultural purposes in 2006/07, a total of 8,851 house holds or about 77,636 populations are living within and in the immediate surrounding of the park. The communities are permanently settled inside, except for some members who move with their herds in search of grass and water in different seasons (NACID 2004).

3.2 Research design and data sources

The nature of research problems most often dictates the methodology of the study (Creswell 2003). The current study aimed at examining the various factors affecting the conservation and management of the tourism resources in ASLNP. Hence the study commands methodological pluralism (i.e. a combination of different data collection techniques), where both quantitative and qualitative data collection and data analysis methods are employed in order to answer the research questions in this

study. Such methods helped to find adequate information, and to get individual, group and institutional views on the various natures of the problem. Both primary and secondary sources of data are used in this study. The primary data is gathered through household survey, tourist survey, focused group discussion, key informant interviews and direct observation techniques. Secondary data sources included published and unpublished materials, books; journals, reports, maps and photographs.

3.3 Sampling procedure and sample size

According to Fekadu and Rezenom (2002), 85% of the park area is found in Arsi negelle district, followed by 10% in Shala, and the rest 5% in Adami Tulu Judo Kombolicha. Hence the Arsi Negele district is selected from which to take the sample PAs. Preliminary survey, discussions with various woreda officials and park staff members, and literature review helped the author in identifying the sample PAs. The Arsi Negele district is selected based on the reasons that; the largest portion (85%) of the park is found here; it is the most accessible district for data administration, it is an area of rich resources of the park, an area of tourist zones, area of high community impact on tourism resources, area of high interaction among stakeholders, and is an area that represents all types of resource uses by the local communities with regard to this research context.

Table 3, List of PAs from Arsi Negele district, found in ASLNP

No	Name of PA	Household (HH)	Population in PA	Sample size (10% of HH)
1	Daka Dalu	237	1910	
2	Daca Horan Kollo	466	3248	
3	Gale fi Qello	359	2457	40
4	Hadha Gosu	489	3232	
5	Shalla Bila	598	4125	60
6	Mudhi Arjo	801	5322	
7	Algee	413	2799	
8	Gubata Arjo	286	1960	
	Total	3649	25053	

Source; Arsi Negele Agriculture and Rural Development Office, 2006/07

From the 8 PAs in Arsi Negele district, two of them; Gale fi Qello and Shalla Billa are selected for the household survey based on the above same criteria (accessible for

data administration, areas of rich resources of the park, tourist zones, high community impact on tourism resources, high interaction among stakeholders, they represent all types of resource uses, and their proximity to the main road). Shala billa is totally found in the park, while part of Gale fi Qello is inside. From each of the two sample PAs, 10% of their total households (see table 1), a total of 100 households are taken for the survey. This sample size (10%) is assumed to be representative, for the population is homogenous with regard to resource use from the park.

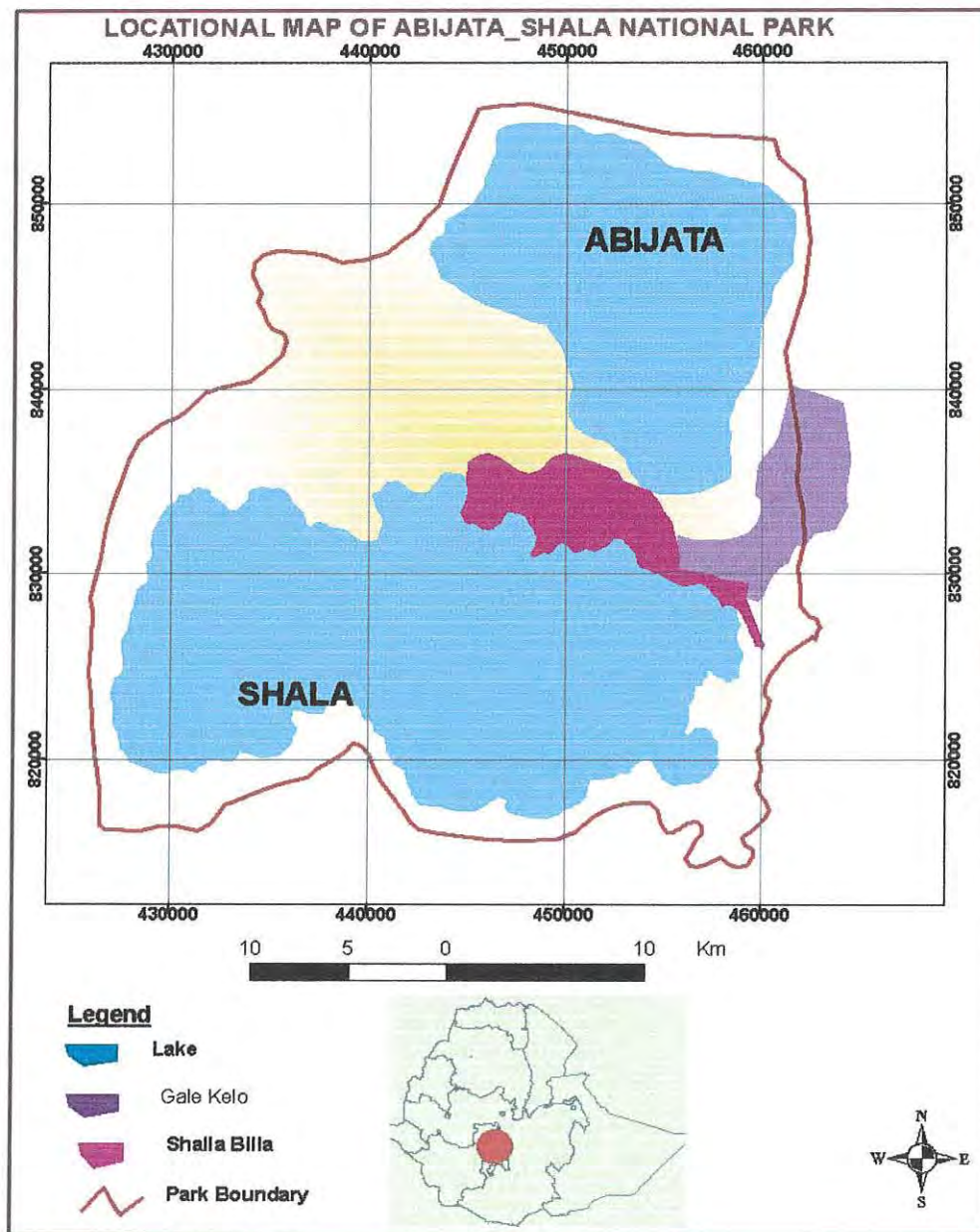


Figure5, the proposed map of ASLNP. The sample PAs Gale fi Qello and Shala Billa are taken from Arsi Negele district. Map prepared by Negasi Fesseha, February 2008

3.4 Sampling method

The agro-pastoralist people who live in the three districts move with their herds in search of water and pasture to surrounding areas. Some move to as far as Shashamne district and Alaba border during the dry season of October to March (NACID 2004). There is temporal and spatial mobility of people in the sample PAs as well. Of course, not all community members leave their home; some remain to safeguard their land and property.

The situation of people's mobility couldn't enable the author to use random sampling. Convenience sampling is found to be suitable to address and interview the sample households in this study. Therefore, the household survey was conducted on 100 respondents in Shala Billa and Gale fi Qello PAs. Regarding the assessment of the tourist view, 24 local and foreign visitors were asked by way of self-administered questionnaire using purposive sampling. This method was also used to interview representatives at Soda Ash factory, Bekele Mola and Wabishebele resort hotels with the instrument of self-administered questionnaire purposefully.

3.5 Data collection methods

1. Primary Data

Survey questionnaire: This method was used to assess and identify the types of resource use from the park, the way how resource users access those resources, their perception on the park, their reason to trespass the protected area, and to investigate other related issues. This aimed to investigate the different uses of resources by different groups of population such as the local community, the investors, the public investment, and the tourists. Household survey is conducted using questionnaires administered to 100 sample households. Enumerators with better education (diploma holders) are hired to collect the data. They have been given a three day training and adequate elaboration on the aim of the study, contents of the questionnaire, and regarding the ethical considerations during interview of households. Assessment of tourist view on the tourism resources and on the services

was also conducted using self-administered questionnaire in the park's office and in the nearby resort hotels.

Key informants interview (KII); collecting information from different stakeholders was believed to increase the quality and reliability of the data. Accordingly interview with key informants is found to be crucial. Hence consultation and interview with stakeholders, such as government officials at local, regional, and federal levels, as well as with park staff members, is conducted using purposive sampling. This helped to know the opinion, interest, importance, influence, short coming, the interaction, willingness and commitment to cooperate with others in the use and management of the park resources.

Focused group discussion; this was another qualitative method of data collection instrument. It was arranged to support the data obtained from the household survey and from interview of various stakeholders. For this purpose, discussion with one group that consists of 10 individuals was conducted. Individuals were selected using snowball sampling, and the discussion was made using the local language (*Afan Oromo*).

Field observation; in addition to the data collected using the above techniques, Field visit in the National Park enabled the author to identify the different tourism resources, to see the challenges, and somehow to observe their sources. Informal discussion and interview with park staff members and local resource users were important instruments of this technique. Field observation in the area was possible with the help of guides from the park staff members.

2. Secondary data: The primary data collected using different techniques is backed by information from secondary sources. In each stage of the study, reviewing different documents was the basic means of information retrieval. This is done through internet search of journals, books, scientific literature and other published and unpublished sources. It was helpful in generating second hand information to support

and compliment field observation data, discussion and interview results. In some instances, literature review was the main information source. Official documents from organizations and offices were also used to compliment information from key informants' interview.

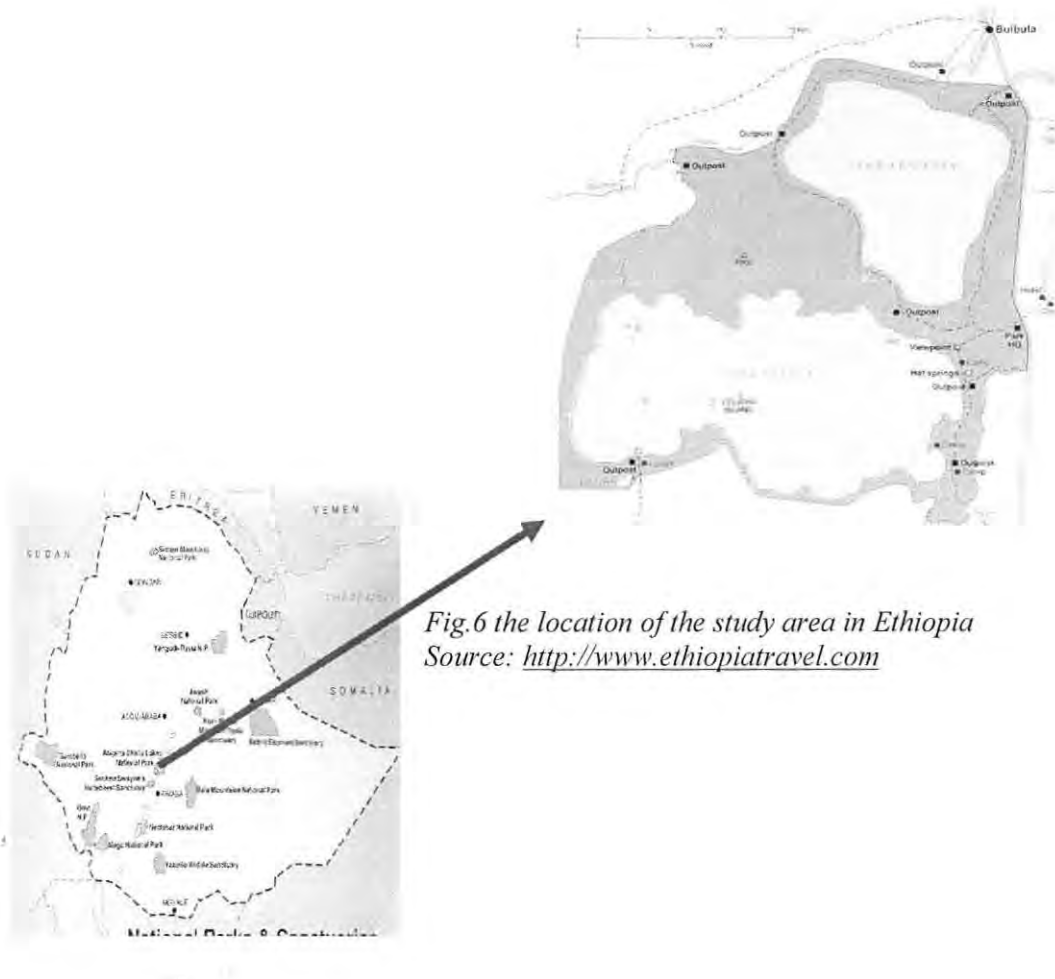
3.6 Data analysis

The process of data analysis is carried out using qualitative description and descriptive statistics. The household and visitors survey data is analyzed employing descriptive statistics with the help of statistical packages for social sciences (SPSS) soft ware. Therefore, frequency tabulation is used for statistical description. Non-quantifiable information from open- ended questions, key informant interviews, observation and focus group discussions, which was used in the triangulation of evidences, is analyzed through qualitative description.

4. Social and physical attributes of the study area

4.1 Background of ASLNP

The Great Rift Valley, formed about 20 million years ago, is the single largest geographical feature on the African continent. It is also probably one of the world's greatest geological features. It runs from North Jordan in SW Asia through Ethiopia and other countries to Mozambique in the Southern Africa. In Africa alone it covers more than 5,600 km from the Red Sea to its southern end. Owing to its structural features, the Rift Valley in Ethiopia is divided into three geographic zones. These are: The Northern Rift System ranging from Fentale to Adama, The Central Rift System ranging from Adama to Awassa, and The Southern Rift System from Awassa to Chewbahir (Bedru 2006). The study area covers the Abijjata-Shala Lakes National Park (ASLNP), located in the Central Rift Valley, some 200 km south of the capital city Addis Ababa. Its centre is located at 38°30'E and 7°30'N.



4.1.1 Physical features of ASLNP

The total area of ASLNP is 887 km², 482 of this being water and the remaining 405 km² is land. Its altitude ranges from 1540 to 2075 meters above sea level, the highest peak being mount Fike, situated between the two lakes. ASLNP attracts attention for its aquatic birds and a reasonable amount of other wild life species.

Climate; The Ethiopian Rift valley is characterized by its semi-arid climate with a long summer season (late June - mid September) bringing heavy rains from the Indian and Atlantic Oceans, a dry season (October – February), and a small rainy season (March - May) bringing moisture from the Indian Ocean and Red Sea. In particular, for ASLNP area the rainy season is from March to April and June to September. It gets annual mean rainfall of 650mm, with a range of 500 to 700mm. The relative humidity in the park ranges between 48 and 68% with high evaporation throughout the year. The temperature can be high, reaching 45 degrees Celsius at maximum in the warmest months (May and June), and 5 degree Celsius at minimum in the coldest months (December and January) with an annual average of 27 °C. This area is classified within the climate zone of upper-kola or semi desert based on the Ethiopian climate zoning system (Ayenew 2004; Yilma and Mengistu 2002).

Hydrology; The central rift valley in Ethiopia forms a complex and vulnerable hydrological system with unique ecological characteristics. The rift valley, as it moves towards the south, has a chain of lakes along its course. According to Grove et al (1971) in Bedru (2006) around 9200 ± 190 years B.C., Lakes Abijjata, Langano, Shala and Zeway were all together a single big water body covering the areas in between. During the Early to Mid Holocene and the Late Pleistocene wet periods, the four lakes were united, forming one large freshwater lake which overflowed to the Awash River to the north (Gasse and Street 1978; Street 1979 in Dagnachew 2002). They were later isolated by faulting and other crustal movements and desiccations. Some geological layers indicate that Lake Awassa was also probably part of the larger water body that covered the Zeway-Shala basin (ibid). Lake Awassa and the Cheleleka swamp, a small water body near to it, were a single entity during the last century

(Bedru 2006). The whole study area is located in the Ziway-Shalla Basin (Fikadu and Rezenom, 2002). Lake Ziway overflows in the Bulbula River that drains into Lake Abijata on its southern borders. Lake Langano, again fed by several smaller rivers, flows into Lake Abijata via the Horakello River (Mohammed 1993). Lake Shala, a deep terminal saline lake on the other hand has an independent sub-basin and is principally fed by the Gido and the perennial Dadaba Rivers as well as the hot springs.

Soil Character; According to FAO digital soil map (FAO 1997 in Bedru 2006), there are up to 24, 12 and 7 different soil units in the Central and Southern Rift, the Zeway-Awassa basin, and the National Park including its environs respectively. While Eutric vertisol is dominating the former two categories, Vitric andosol covers more than 1/3 of the park and its 10km radius. This has a wide range implication in agriculture land use and natural resources conservation. In fact more than half of the terrestrial land is covered solely by Andosols in the park area. It is usually associated with vertisols forming vertic andisols. In this particular locality this soil type is more of highly basic. In general soils around the lake areas tend to have high PH, which means more nitrification.

Vegetation Type; different studies at different times indicate that the rift valley floor has been largely dominated by woodland and wooded-grasslands that are increasingly becoming more open. The most common tree species along the rift floor belong to the deciduous *Acacia* while the cooler escarpments on both sides support a wide diversity of both broadleaves and conifers. Prior to intensive anthropogenic processes, the Zeway-Awassa basin woody vegetation composition was dominated typically by *Acacia albida*. In relatively protected areas through fencing, the natural dominance tends towards acacia species (Grove et al. 1975; Bolton 1969; Feoli et al. 2000 in Bedru 2006; and Zerihun et al. 1990).

4.1.2 History of ASLNP

There are six protected areas designated for nature conservation in the Rift Valley, of which ASLNP is one of them. It is composed of the two saline lakes, the surrounding wood land and savanna grass land, and it was established as a national park in 1970 in response to two important missions carried out in 1963-1965. The rift system of the two lakes and their surroundings were supposed for this purpose in 1963, on a mission headed by Huxley. Similarly it had been visited by UNESCO consultant mission led by major E.R Grim wood and Dr. L.H. Brown in 1964-1965 who examined the possibility of establishing a national park in the area (Mohammed 1993; EWCO 1993). Later, Melvin Bolton, a wild life advisor to the Ethiopian government in the 1960's recommended the site for national park, where his recommendation approved by the government. Following this decision, ASLNP was established by the Ethiopian wild life conservation organization in 1970. The park was designated; to conserve the biodiversity of the locality and the aquatic birds, to maintain the ecological process, to generate economic benefit by promoting tourism industry and to promote scientific research and education (Feyera and Fekadu 2002; Dagnachew et al. 2005). Since 1970 the park was under the jurisdiction of EWCO until it transferred to the Oromia regional state natural resource and environmental protection authority in 1992 after 22 years time (Fekadu and Rezenom 2002).

4.1.3 Tourism attractions in ASLNP

The ASLNP is one of the most scenically beautiful spots of Ethiopia, possessing a unique aspect of blue lakes edged with flat-topped acacia trees and alive with a spectacular wealth of avifauna (Stephenson 1978). More over the park offers attractive features due to its possession of other unique natural resources like lava caves, large number of hot springs, and mammalian species (RATSON 2004, Fekadu and Rezenom 2002). The two lakes are both terminal, their beaches are unstable, and saline. They are very different in character.

A. The Lakes and Hot Springs

LAKE ABIJATA; Abijata is an alkaline blue colored shallow lake with a depth of only 14 meters and an area of 176 km². It is specially known for the large number of Lesser Flamingo, and as a major feeding ground for the Great White Pelican. The alkalinity of Lake Abijata encourages the production of phytoplankton, zooplankton and fish (Mohammed 1993). More over its alkaline edge and the surrounding lake side pasture attract arthropods required as food for shore birds. Such nature of the lake makes it an ideal site for bird watching (Yilma and Mengistu 2002 in Debele 2007). Much frequented by water birds for drinking and bathing, the lake is surrounded by gentle, grass covered slopes and acacia woodland.

LAKE SHALA; Surrounded by steep, black cliffs and peaks that reflect in its water, is the deepest lake in the rift valley. It has a depth of 266 meters and an area of 329 km², with a longest diameter approaching 28 km. Due to its depth it has by far the largest volume of Ethiopian lakes amounting to 42 km³. There are very little algae and photosynthetic activity due to its depth and very alkaline content. Lake Shala has eight islands with different sizes ranging from a few hundred square meters to over 25 hectares. These are known by the names Cormorant, Abdims, Pelican/tulu, Sacred, Edo, Little island, Flat island, and Rock islands. Out of them the first four are used as breeding sites for some birds (Fekadu and Rezenom 2002). Compared to that of Lake Abijata the number of birds found in this Lake is few though they are with great diversity of species. In this lake over 150 bird species have been recorded (Humber and Kebede 1987 in Debele 2007).

LAKE CHITU; with its pea-green water in a cup sided crater, about a kilometer far from Lake Shala, Lake Chitu is the only known example of the explosion occurred in the center of the Ethiopian rift valley (Fekadu and Rezenom 2002). It is very small in size, only 0.8 km², with a maximum depth of 21m. Lake Chitu, the most saline lake is known to be an important feeding site for lesser flamingo. Its water has high soda content provided the blue/green algae as food for the thousands of flamingos throughout the year.

Table 4, Features of Lakes Shalla, Abijata and Chitu

VARIABLES	SHALLA	ABIJATA	CHITU
Type of lake	Rift	Rift	Crater
Altitude (m)	1558	1578	1600
Area (km ²)	329	176	0.8
Maximum depth (m)	266	14	21
Mean depth (m)	87	7.6	-
Salinity (g ⁻¹)	18.1	26.4	44.9
Alkalinity (meg ⁻¹)	218	325	573
PH	9.7	9.9	10.2

Source: Kebede 1996.

THE HOT SPRINGS; ASLNP is endowed with numerous hot springs and hot ground water potentials, which are associated with the geological faults striking parallel to the direction of the rift (Fekadu and Rezenom 2002). These springs are found along the eastern and southwestern shores of Lake Shala. The Hot Springs are basically similar in their chemical composition, but vary in their temperature, size and discharge rate. The hot spring located on the north eastern shore of Shala is the largest with a temperature of 97 degree calices with a discharging rate over 50,000 litters of boiled water a day. Many studies conducted on these springs revealed that their water has curative effect for a number of dermatological, respiratory, and neurological diseases.

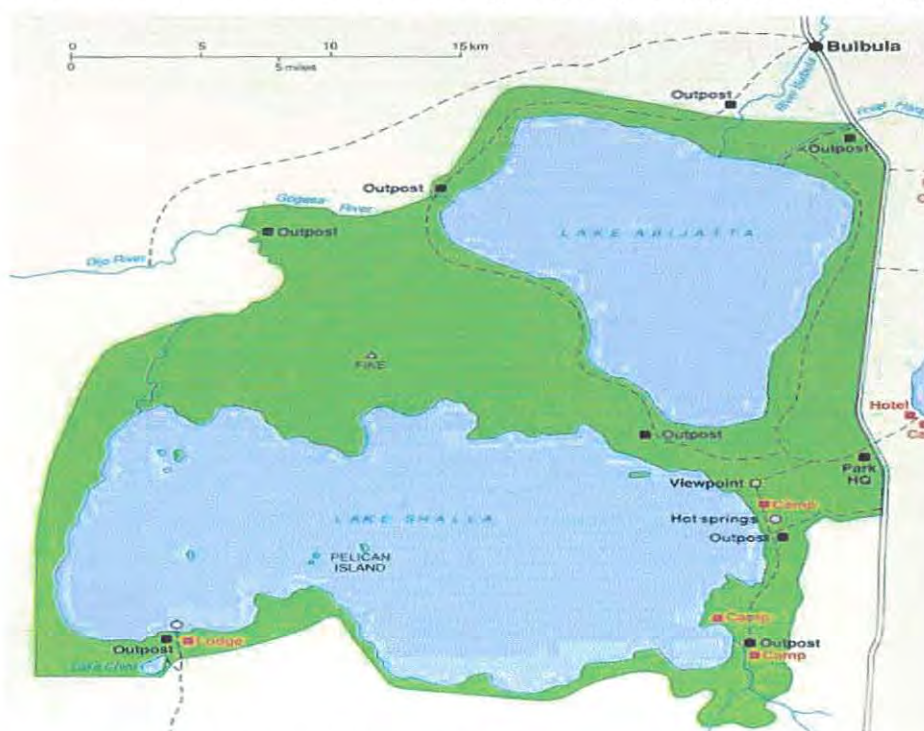


Fig.7, location of the three lakes, shala islands and the hot springs in ASLNP.
Source: <http://www.ethiopiatravel.com>

B. The Birds, Fauna and Flora

THE BIRD SPECIES; A study of restricted range bird species identified 221 endemic bird areas (EBA's) in the world where endemic birds are confined. The study showed that about 26% of all bird species are limited to less than 5% of the world's land area, where conservation action on just 2% of the total land area could greatly enhance the survival prospects of one in five of the world's birds, including a high proportion of those at risk (Tadesse 2007). There are four EBA's in Ethiopia namely the central Ethiopian highlands, Juba and Shebele valleys, southern Ethiopian highlands, and northern Ethiopia.

There are also Important Bird Areas (IBAs) which are sites whose global importance for bird conservation is vital at both national and international levels. IBAs have been selected after fulfilling strict criteria and periodically monitored by the IBA Program of Bird Life International (Arinaitwe 2001, Fishpool 2001, and Birdlife International 2005, all in Bedru 2006). Out of the 69 IBAs in Ethiopia about 15% are actually located in the protected areas. Sixteen IBAs exist in the larger rift valley area where the two are in the ASLNP. Many migrating birds often avoid large desert areas and dense tropical forests as most of the birds are adapted to habitats near to water bodies. Hence coastal areas are rich in migratory species, of which the Rift Valley lakes region is the preferred destination to most of the migrating birds. The two lakes inside the ASLNP and the adjoining lake Langano provide the feeding and nesting grounds for migrating birds.

A great number of the bird species that prevail in the lakes are seasonal migrants and the area thus is a paradise to ardent bird watchers. The lakes provide an important staging point for thousands of migratory birds but perhaps the bird of greatest interest to a nature lover and of concern to the world is the Great White Pelican (Fekadu and Rezenom 2002). The Pelican breeds in its thousands (up to 12,000 pairs in a year) on the pelican island in Lake Shalla where it finds the undisturbed conditions essential to its successful breeding (Stephenson 1978).

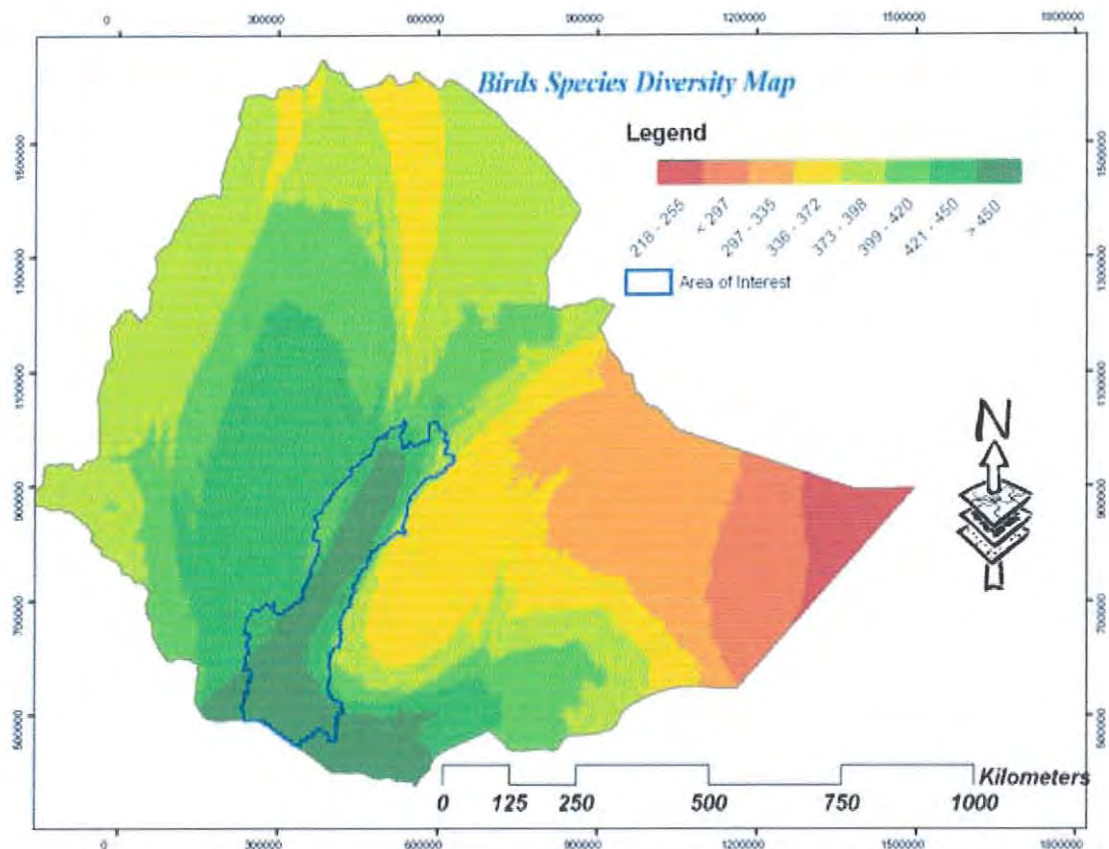


Figure 8, the central rift valley of Ethiopia is one of the world's biodiversity hotspots for Bird species where the ASLNP is at the center (Source; Bedru Sherefa 2006)

Lake Shalla, being too alkaline, contains no fish, the only diet of the Pelican, so the bird does its fishing elsewhere, mainly in the northern waters of Lake Abijata and the parent birds fly the fish to the Pelican Island to feed their young. This indicates the great importance of the lakes to the ecology of the Great White Pelicans. Lake Shalla is the second most important of the eight regular pelican breeding grounds in the whole of Africa (Stephenson 1978).



Fig. 9 "The birds'paradise", ASLNP is a home of diverse bird species. The great white pelican found in the pelican island of lake shala are the most attractive bird species in the park. (photo; www.ethiopianlink.com)

The ASLNP has over 436 bird species, of which 6 are near endemic to Ethiopia. The most notable have been the Great White Pelican, Stork, Flamingo, Egrets, Herons, Cormorants

and Plovers. Lake Abijata is specially known for the large number of Lesser Flamingo, and as a major feeding ground for the Great White Pelican. This park is especially known for its significance to migrating wetland birds from the arctic during northern winter months. It also serves as a stopover for a high population of different birds' species. During the annual African Waterfowl Count of 1992/93, a total of 37,000 Shoveler; 700 Black-winged Stilt; 11,000 Avocet; 7,000 Little Stint; and 10,000 Ruff were counted (Syvertsen, 1995 in EWNHS 2002). The African Waterfowl Census conducted for over ten years indicated that the ASLNP entertains unusual records of birds including Dunlin, Mongolian Sand Plover, Pacific Golden Plover, Kentish Plover, Grey Plover, Pectoral Sand Piper, Red-necked Phalarope, Wattled Crane, Southern Pochard, Great Black-headed Gull and Yellow-legged Herring Gull (EWNHS 1996).

The Ostrich farm in the park is the other tourism attraction, perhaps the most accessible resource that can be seen easily for the ostriches are found in the sanctuary around the park's head quarter. They are non-flying bird species brought from afar area, the eastern savannah grassland of Ethiopia in 1983. Their number was more than 50 upon a time in the nearest past. But now it declined to 19 due to various reasons.



Figures 10, Ostriches are the first attractions to welcome visitors in the park (photo: the author, February 2008).

Even the life of the remaining ostriches is highly endangered (*personal communication with staff members, January 2008*). The Afar grassland was their natural environment in which they can run and escape easily from their predators. But here they are in ex-situ conservation in a forest of acacia woodland, unsuitable environment to live in, to run and escape from their enemies, hence easily eaten by hyenas. In addition to this habitat management problem, the ostrich farm is not functioning well to save the remaining resources. As a result they are exposed to lack of feed, and various diseases. Mengistu and Yirmed (1999) have prepared an exhaustive bird checklist for

the park (436 species) and the following birds recorded within the park are significant for their global status.

Table 5, Birds with global status within the park

No	Name of species	Global Status			
		End	NE	NT	Vul.
1	Yellow-fronted parrot	♣			
2	Watt led Ibis		♣		
3	Black-winged love bird		♣		
4	Banded Barbet		♣		
5	White-winged cliff chat		♣		
6	Abyssinian Black-headed oriole		♣		
7	Lesser Flamingo			♣	
8	Pallid Harrier			♣	
9	Basra Reed Warbler			♣	
10	Black-winged pratin cole			♣	
11	Imperial Eagle				♣
12	Lesser Kestrel				♣
13	Wattled crane				♣
14	Ferruginous Duck				♣

*Key: End = endemic; NE = near endemic; NT = near threatened;
Vul. = vulnerable. Source; EWNHS 2002*

FAUNA; Fikadu and Rezenom (2002) have noted that the park has a total of 76 mammal species representing 9 orders and 27 families. Historically abundant species including Oryx, Swayne's Hartebeest, Buffalo, Waterbuck, Giraffe, and Lion have been exterminated and are replaced by other species like Grant's gazelle, Colobus Monkey, Warthog, Greater Kudu, Klipspringer, Oribi and Jackal.



Figure11. These are some of the present wild lives in the park (Photo: from www.ethiopianlink.com).

These species are rare nowadays and there are only exceptional sights if one ever sees them at all. The abundant species that one can see often would be Jackals, Hyena, and Baboons. The park has endemic small mammals including Scott's Hairy Rat, White-toothed Shrew,

Mahomet's Mouse, White-toothed, Ethiopian Grass, and Harrington's Scrub Rats.

FLORA; The vegetation zone is identified to be savannah and the habitats surrounding the lakes are largely Acacia and Ficus savannah, Acacia-Euphorbia woodlands with small areas of riverine forest and open shrub on the rocky slopes. Lakeshores around Lake Abijata have short grasslands comprising of Cynodon and Sporobolus that are important for stabilising the fragile soils. Among the dominant tree species in the park are Acacia tortilis, Acacia Senegal, Acacia seyal, and Acacia gerrardi.



Figure 12, partial view of the park. The dominant tree in the park is acacia. Photo; by the author (left) and Rezenom Almaw(right).

4.1.2 Major significance of ASLNP

A. Economic and Ecological values

The park derives its name from the two lakes, Abijata and Shalla that together make up for over 50% of the total area. ASLNP is a sanctuary for the birds and mammals inside, and has prominent ecological features with a great ecological significance. As noted by Fekadu and Rezenom (2002), it is the richest wetland in bird diversity, and is the only protected representative Alkaline Lake Biome in Ethiopia. It is designated as IBA based on the fact that it holds: Category I Globally Threatened Species including Lesser Flamingo, Pallid Harrier, Basra Reed Warbler and Black-winged Pratincole; and Category IV Congregation of birds. It annually holds more than 20,000 water birds on a regular basis. It is a wintering ground to 11 migratory species, and for thousands of Palearctic birds including ducks, waders, terns, wagtails and pipits. It has six near-endemic, one endemic and four vulnerable bird species, with 144 wetland bird species whose proportion makes up for 70.6% of the total wetland

species for the country. ASLNP is the best place in the country where the Lesser Flamingo can be found in maximum numbers (EWNHS 2002).

The conservation value of the ASLNP does not rest only on its wealth and diversity of mammals and bird species. The national park has a great potential and significant contribution to tourism development of the country. The two lakes with their bird species and scenic beauty are famous in the world. Its diversified tourism attractions, its accessibility, and its central location, all have created good opportunity for the park to attract the attention of visitors, whose stay and visit can benefit the local community and the national economy.

The park is within manageable distance from Addis Ababa, the capital of Ethiopia, and therefore forms an excellent tourist destination. Its adjacent location to the visitor facilities including resort hotels located along the adjoining Lake Langano is also the other opportunity that adds tourists to the park. Hillman (1988) reported that, ASLNP had the highest tourist visitation rate and was the highest revenue earner of any national park in the country. Although there is no disaggregated data on tourism income of national parks to see if that status (in both tourist flow & revenue generation) persists until now, it is obvious that the ASLNP is contributing substantial amount of revenue to the national economy (see table 6).

Besides of being a source of income through tourism for the national economy, ASLNP is benefiting people in the surrounding and other places in various ways. Though very few, the park has created jobs for the local communities. Most of the staff members, especially the game guards, are from the surrounding areas. Indirect beneficiaries such as local transport providers and those providing and selling local souvenirs to tourists are there getting their share, although not in a very organized way, and not that much significant. They are only indications of the future hope if an integrated tourism activity is to take place in the park.

Table 6, Tourism revenue of ASLNP (1989-2006)

No	Fiscal year	Type and number of visitors			Total revenue
		Ethiopian visitors	Foreign residents	Tourists	
1	1989/90	1504	1731	-	56442
2	1990/91	941	1596	441	72753
3	1991/92	542	862	308	42886
4	1992/93	-	25	153	8400
5	1993/94	-	-	-	-
6	1994/95	687	324	76	15581
7	1995/96	1350	418	285	30840
8	1996/97	1789	530	723	5417
9	1997/98	1914	841	1191	90522
10	1998/99	1690	800	1145	86320
11	1999/00	1208	509	386	38194
12	2000/01	1837	785	930	75561
13	2001/02	1912	741	851	70516
14	2002/03	2298	681	1387	96674
15	2003/04	1934	515	1697	867102
16	2004/05	2346	725	2001	133838
17	2006/06	2085	909	2913	101175
18	2006/07	2194	860	3010	102882
19	Total	27031	12852	17597	2,107,503

Source: Debele (2007). Key: ETB= Ethiopian Birr



Figure 13, Accommodation is one important component for tourism development. These are Wabishebele resort hotel (left) and Sabana beach resort (right), on the shore of Lake Langano, which contribute to the tourist flow of ASLNP (Photo; the author, 2008).

The tourism resources are attracting the attention of investors to engage in tourism services such as resort hotels and other development projects, which would benefit the local people and the country one way or the other. One investor already has begun construction along the shore of Lake Shala, and another foreign company known as international investment house (IIH) is on process to construct a city named 'alkhair' (good city) between Lakes Shala and Langano.



Figure 14. selling of souvenirs has already begun to be a means of livelihood, though a very recent phenomena. (Photo; the author, April 2008)

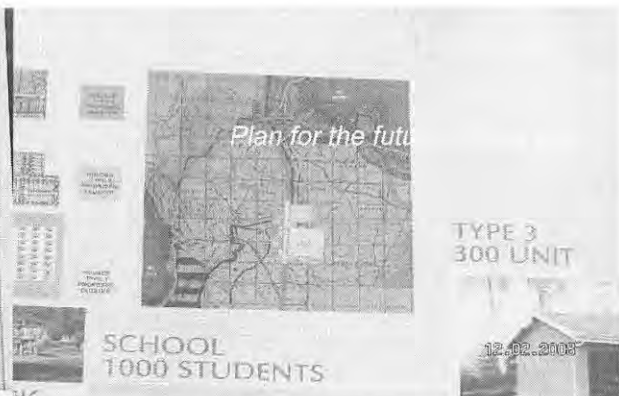


figure 15. Plan for a big city in the future by IIH (Photo; the author, February 2008)

B. Education and Research values

Natural resources have specified values within the society. These values derive from the different functions that are associated with natural resources. According to Kohler (2000) cited in Haslinger (2004), natural resources take in three basic functions. The first one is function of production such as timber and meat production. The second is function of protection such as conservation of biodiversity, protection from natural hazards, and regulation of ecosystems. The third one is function of culture and social welfare such as protection of cultural and spiritual values, recreation, education and creation of awareness.

Haslinger (2004) stated that natural resources in protected areas can generate income and create jobs, use for research and monitoring, and for conservation education. Scholars like Sandura (1987) and Cardine (1990) also stressed on the importance of national parks for educational purposes. According to them National parks serve the purpose of educating the public and introducing practical knowledge

of the ecological principles which is the essence of the school environmental education programs. Promoting research and education is therefore among the objectives of national parks.

One of the most important objectives of ASLNP is to allow scientific research and studies. Documentary analysis from the park shows that ASLNP has a meaningful interest to these purposes, and is contributing a lot to the scientific and academic world. Different scientific researches have been conducted in the park by various national and international researchers to add more on the existing knowledge about natural resources, community-nature interaction, and environment and development. Much of the scientific findings have been published in books and various journals. According to Fekadu and Rezenom (2002), about 62 research works on ASLNP are listed in Hillman's (1994) bibliography. Also it is contributing much to the academic institutions. Visitor's document in the park office shows that within nine years time (1988/89-2000/01) the park offered opportunities of field study and education for more than 4,112 students and teachers. Especially since 1993, the visit for field study by students and teachers has increased by 30-40% a year.

Table 7, visitors in ASLNP for research and education purposes in half year 2006/07

Month	Visitors No	Visitors' Origin in Ethiopia
January	121	Addis Ababa, Wondo, Holeta,
February	6	Ziway
March	42	Addis Ababa, Ziway
April	110	Addis Ababa, Awasa
May	223	Addis Ababa, Jimma
June	133	Addis Ababa, Arbaminch, Dilla
July	62	Hawasa
August	12	Mersa Vocational School
Leap year	100	Wondogenet forestry collage
Total	809	From all the places above

Source; the park office, February 2008

C. Special significance

Inside the ASLNP, there are many culturally significant natural resources and landscapes. Local communities use resources of cultural values and practice traditional beliefs with sacred trees, rivers, landscapes, and the lakes. A household survey in the area shows that they use herbal medicines (62%) and ornamental resources (21%). Evidences from Communication with key informants and survey questionnaire indicate the use of park resources for cultural purposes by the locals. In describing the religious beliefs of the Arsi Oromo, NACID (2004) also reported that some of the local communities still hold a belief based on a deep respect for their ancestors and a belief that trees, mountains and other objects have spirits.

Response	Frequency	Percent
Yes	62	62.0
No	38	38.0
Total	100	100.0

Table 8, Distribution of sample household response to Medicinal resource use from the park (Source; field survey 2008)

ASLNP is also a place of great aesthetic value. Besides of the bird species and mammals found there, its scenic beauty is attracting visitors. A tourist survey conducted for this study shows that some of the tourists motivated to visit the park for the beauty of its landscape (30.4%) and to enjoy being in the nature (21.7%). Nature lovers admire the spectacular scenery and the silence inside. Similarly some of the local communities in a household survey responded that they spend their leisure time being in the view point watching the scenery.

Table 9, Tourists reason for visiting the park

Responses	Frequency	Percent
For the beauty of landscape	7	29.2
To enjoy being in the nature	5	20.8
To watch wildlife and Birds	7	29.2
To do sports	1	4.2
Educational purpose	2	8.3
Organized activity	1	4.2
Total	24	100.0

Source; field survey, 2008

4.2 The Community and their Livelihood System

4.2.1 Culture

Most of the inhabitants in the surrounding of the ASLNP are Agro-pastoralists. They are Muslims with the exception of the Kelo-Chanco, who are Christians, and belong to the Arsi Oromo ethnic group (Ijuin 1996). The name Arsi Oromo refers to the dominant population living in the low and high lands of Bale, Arsi and Rift Valley area including the national park. The elderly men appreciate the name Arsi when speaking about themselves and their connection with the other neighbouring Oromos. There are several legends and traditions among the Arsi Oromos about their remote past, especially their coming from "Mada - Wolabu", the place of great destiny (NACID 2004). The Oromo in Arsi Negele have similar customs and traditions as those in the neighbouring districts. For instance, most of the people live in circular huts that have mud walls and thatched roofs. The Arsi Oromo have their own ways of marriage, law enforcement, and rich socio-cultural system. Often they use a family tie to establish a legal claim to an inheritance of property. The wife usually goes to live with the husband's family. Men own property and pass it on to sons. The first born male usually inherits most of the wealth in the family. Family ties are in general strong in Arsi community. The father remains the dominant figure in the family while the wife and children obey him.



Figure 16, the Arsi Oromo own rich culture. A man dressing his wayya, and a woman with her cultural materials (Photo; Arsi Negele, culture and tourism office)

Under the traditional system of the Arsi Oromo, the judges are the community elders of the village. Whenever a case arises, the elderly men ("Mangudo") gather in an open place and discuss the matter. When the conflict is between two or more clans, elderly

men of the respective parties come together to settle the differences (NACID 2004).

mostly for transhumance grazing. Settlements were slowly formed when people thought it was easier to have a temporary house in the lowlands with a small family outpost for their transhumance needs. This slowly developed into stronger relations with the lowland entity and people started living on a permanent basis in the lowlands after some time (EWNHS 2002). In this study an assessment is made to know the local communities' view on the history of settlement in the area by asking Households about their duration inside the park, and the result shows a gradual process of settlement expansion.

Response	Frequency	percent
5-15 years	5	5
16-26	37	37
27-37	26	26
38-48	18	18
49-59	9	9
60-73	5	5
Total	100	100

Table 11, households' response on their duration inside the park (Source: field survey, February 2008).

Of the total respondents, about 32% said that they have been living in the park for about 38 to 73 years. The other 68% answered that they have been living for less than 38 years. These

views indicate settlement in the park's proper to have a history of at least 73 years time. In general the survey shows 81% of the sample households inhabited the park during the period of 1960-1992 (lived 16-48 years), and 14% inhabited before that (lived 49-73 years), which indicates that settlement expansion in the park to have somehow a longer history, surely started prior to its establishment, and expanded further in the later years.

But gradual inflow of people to the park from the surrounding areas is also a factor for the settlement expansion inside the park. On the survey questionnaire, households are asked about their previous place of residence, where 93% of them answered they have been living inside the park for their entire life time since child hood, and the rest 7% answered that they were living outside but through time they settled in the national park area.

Table 11 above shows that 37% of the households (the largest size) have been living for about 16-26 years. This means that some of them inhabited the park between 1982 and 1992, where the year 1991, a time of government change in Ethiopia, is in

4.2.2 Sample population characteristics

The total sample size used in this study is 100 households permanently settling inside the ASLNP. These households were drawn from two PAs that are found in Arsi Negele district. The two PAs contributed to the sample population proportional to their household size.

Age	Frequency	Percent
15-25	36	36
26-36	28	28
37-47	19	19
48-58	11	11
59-69	5	5
70-73	2	2
Total	100	100

*Table10, Household age distribution
Source: field survey, February 2008*

As can be seen from the age distribution table, 36% of the respondents are within the age group of 15-25, and 64% are within the age group of 26-73. Out of the total households administered in the survey for this study, 90% are male, and the remaining 10% female. With regard to their educational status about 22% of the total households are illiterate, 74% with educational level of grade 1-8, and the remaining 6% are with educational status of grade 9-12.

4.2.3 History of settlement in the area

The central rift valley region has been inhabited by the Oromo people since the 16thc. (Zerihun 1990). He reported that permanent settlement in the park and its surrounding took place gradually since the Oromo expansion into the area at this period. According to Hilman (1988) the shores of the two lakes were traditionally used as wet season dispersal areas and grazing land by pastoralist Oromos coming from Arsi highlands. Bolten (1969) also indicated that settlers in the surrounding highlands had been using the low lands of the lakes region for wet season grazing, and the pastoralists temporarily used this locality as a shelter site in former times. Gradually they settled permanently in the park's surrounding and land proper about 150 years ago, and started to use a significant area of the land for cultivation and livestock grazing.

Conversely, others argue that settlement in the park has no long history and there is a general hypothesis that people have not lived long. The inhabitants in the national park came from the highland areas, but previously they were using these lowlands

savings mechanism, power for ploughing, and security for crop failure or emergency cash needs (Bedru 2006), they are also kept for their supply of milk and a form of wealth. The ownership of cattle is a symbol of respectability and a means of gaining high social status. A popular proverb expresses this notion, "*Horin malee Horominni hin jiru*", to mean 'there is no life with out the possession of cattle' (NACID 2004). The survey result on livestock possession (table 13) shows that about 62% of the sample households have between 1 and 11 cattle, and 28% of them have between 12 and 44. The extreme cases are 11% with no cattle at all and 1% owns 100 cattle. In general it indicates that more people have less numbers of cattle. From this result one can infer that, with the exception of the 11% no cattle response, the pattern of having fewer cattle is increasing.

Cattle	Frequency	percent
0	11	11
1-11	62	62
12-22	17	17
23-33	9	9
34-44	2	2
100	1	1
Total	100	100

*Table 13, Households' response on cattle possession
(Source: field survey, February 2008)*

The idea obtained from the key informants interview and from the group discussion with elders backs this finding. They say that the current generation has significantly fewer cattle per household. Among the reasons they gave for the decline of cattle size, the most frequent one is feed shortage due to a decline in grazing land (which they claim the problem to be a result of population expansion in the area).

Dagnachew et al (2005) argue that population increase in this area led to a declining in livestock herding, and made the quest for farm land mandatory, which resulted in a shift of livelihood activity. Livestock diversification, as a coping mechanism to a decline in quantity and quality of grazing land, is the other factor for a decline of per capita cattle possession. According to Bedru (2006), herders react to the changing environment by modifying their herd composition, such as raring more goats at the expense of cattle in recent years. Goats are known for their ability to survive even in a degraded environment.

Although the main livelihood activities of the local community are related to animal husbandry, mixed agriculture, and farming, they supplement their livelihood using different mechanisms. Among the sample households asked about their source of supplementary income, most of them said they use sand and mineral salt extraction, charcoal, timber and farm tool production, fruits, fuel wood, and clay soil collection, and use of animal products. Some of them generate income by way of producing and/or selling these items, and others use the resources directly to add on their daily needs. Among the respondents in this study 16% said they produce charcoal for sale, 36% for domestic consumption, and 2% produce for both purposes. Among the fuel wood collectors from the park, 4% collect for selling, 78% for domestic use, and 12% do it for both purposes. Others supplement their livelihood in fishing, bee keeping (apiculture), collection of ornamental and medicinal resources. By collecting these products from the park they directly or indirectly use them as additional sources of income.

Table 14, Purpose of producing charcoal from ASLNP

Response	Frequency	Percent
Sale	16	16.0
Domestic use	36	36.0
Both	2	2.0
Not using	46	46.0
Total	100	100.0

(Source: field survey, February 2008)

5. Objectives Vs Realities within the ASLNP

5.1 The Objectives of ASLNP

The World Conservation Union (IUCN) agreed upon a single definition of protected area as follows: *"an area of land and/or sea especially dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, managed through legal or other effective means"* (IUCN 1994 in Phillips 2002). The same source indicates that national parks are protected areas managed mainly for ecosystem protection and recreation.

The objectives that have led to the establishment of the ASLNP are similar to other national parks. It is a protected area that has been established to conserve an important bird species, natural areas, the lakes, and to give ample protection to a diverse ecological setting not well represented in other conservation areas. The park is seen as an ornithological spectacle which is the prominent bird sanctuary in Ethiopia. Its primary objective is therefore to conserve biodiversity and maintain vital ecological processes. This outstanding objective is followed by an economic goal of raising the national income of the country and improving the livelihood of the community through tourism industry, and promoting scientific research and education.

According to Mihret (2001), and Fekadu and Rezenom (2002) the specific objectives for the establishment of ASLNP are: conserving the very large number of aquatic birds particularly the spectacle of the Lesser Flamingo and the large breeding colony of the Great White Pelicans, conserving representative wetland habitat in the country that serves as a feeding/staging ground for a diversity of Palearctic migrant birds, generating income through tourism development, and promote scientific research and education. In general the objectives of the ASLNP focus on three different spheres namely; conservation, economic development, and research and education.

Although there are no particular legal instruments and operational guidelines designed for ASLNP, the most relevant policy and strategy designed to realize the objectives of all national parks is the 2005 wildlife development, conservation, and

utilization policy and strategy of Ethiopia (MoARD 2005). Part of it says *"efforts will be made to gazette national parks and other wildlife protected areas according to international standards and principles and administer them by the federal government, regions, private investors, and through community participation"*. The other important instrument in it also has the following idea *"the income secured from wildlife resources will be used to benefit local people, wildlife conservation endeavors, as well as for the overall growth of the national economy"*. A number of strategies are listed in the document which further specifies the policy. Despite the formulation and specifications of these policies and strategies, neither of them is implemented on the ground to maintain the conservation areas.

5.2 The Main stakeholders within the scope of ASLNP

The analysis of the status of ASLNP focuses on the characterization of resource use within its area. The uses of resources include the consumptive use and the non-consumptive use as elements of the land use system in the park. This system is a result of the interactions between different stakeholders with various natural resources inside. The natural resources in ASLNP includes the water bodies, the fish population, the bird species, the mammals, the vegetation, the grass land, the landscape and all the other living and non-living wealth in the park's proper. But the park is not yet split in to zones which will specify the use of resources, such as recreational areas, strictly protected zones, sustainable natural resource management areas, etc. The different patterns of utilization are not yet marked off. Hence the resources are being exploited spontaneously by the stakeholders.

Stakeholders are defined based on their use and handling of resources. Within the scope of the ASLNP there are various stakeholders, which are the main actors in the management and conservation of the national park. The main stakeholders are identified by EWNHS. They are composed of various groups or clusters of actors.

1. The Users group: this includes the mineral salt extractors, sand miners and loaders, Charcoal and fuel Wood retailers, Fuel wood collectors, Charcoal producers, Shifting agriculturalists, Pastoralists, Soda Ash Factory, and "Tourists" (which are non-consumptive resource users). In addition to these, the flower farms and resort

hotels, whose effect on the tourism resources have now become influential, but not considered as stakeholders by EWNHS, have to be included here in the users' group category.

2. Environmental Organizations (Governmental and NGOs): this include the Oromya Natural Resources Development and Environmental Protection Authority, Abijata-Shalla Lakes National Park, Federal Environmental Protection Authority, Bureau of Energy and Mines, Ministry of Water Resources, Oromya Agriculture Bureau, Ministry of Agriculture, Institute of Biodiversity Conservation and Research, Birdlife International, and Ethiopian Wildlife and Natural History Society (EWNHS).

3. Policy making and endorsing bodies: this group includes the Council of Ministers, and the House of People's Representatives

4. Policy implementers: Regional Council, District Councils, and Peasant Association Leaders. The EWNHS has included many groups of actors as secondary stakeholders in addition to the above four main ones.

5.3 The Objectives of Stakeholders

Decisions on land use at any level and the way the stakeholders interact to each other have important impacts on the functioning of socio-economic and environmental systems with lasting implications to sustainable agriculture, household food security, continuity of ecosystems functioning, and biodiversity (Geist et al. 2002). In the ASLNP the decisions and intensity of land use is influenced by stakeholders interaction based on their objectives. The stakeholders have conflicting and shared objectives with respect to nature conservation and management of tourism attractions inside the park. They have conflicting objectives in that some work for and others perform against conservation of resources. But they also have shared objectives. For instance, both the resource users and the conservationists recognize that the resources will not be around forever, with the existing rate of exploitation, and that an intervention is needed. This shared objective emanates, however, from different perspective. The users see it from a point of being able to continue life in the area without shifting to another area in case the whole system fails. The conservationists see it from an angle of not losing the biodiversity (EWNHS 2002).

Objectives of Users: Communities living inside and further away from the site but who depend on the resources of the area in one form or another either directly or indirectly are termed as users. The main objective of a user is mainly the extraction of a livelihood from the area. While the main accrual will be the maintenance of day-to-day lives, communities take this further by finding a market and therefore an added benefit of commercializing the area's resources to others.

Objectives of Environmental Organizations: Members of this group have peculiarities amongst themselves because each can have a different emphasis on their objectives. It is understood, however, that all have a main general aim, at least theoretically, of seeing a better environment where people and nature live in co-existence. Both NGOs and Government institutions nowadays concentrate not only on the natural environment per se, but also include the human aspect of conservation in the well being of the environment. Government institutions have a strong mandate from the State to enable them to implement policies in their respective area. In other words, they can be seen as policy implementers with other political offices. NGOs are known to have specific objectives in trying to conserve this, or carry out certain activities. They can create a favorable working condition and be convincing if it is able to assist Government policies being implemented on a wide-scale.

Objectives of Policy makers and endorsers: While the Council of Ministers provides policies and legal frameworks, the House of People's Representatives endorses these policies and legal frameworks. These policies can be cross-sectoral or sectoral. In the case of the environmental conservation, policies endorsed for example in the Conservation Strategy of Ethiopia are mainly cross-sectoral and require a number of players for effective implementation.

Objectives of Policy implementers: The various council offices at District and Zonal level are primarily expected to implement the policies of the Government. Government offices, with defined mandate usually work closely to realize policies with council offices. Both international and indigenous NGOs usually find a niche where

they can actively play a part in the national plan of action. Peasant Associations' leaders form an important link with the communities they represent and the District council to expedite policies at local level (EWNHS 2002). Although some of the stakeholders have conflicting objectives, others have shared objectives towards nature conservation and natural resource management in the national park. Hence, integrating stakeholders' objectives towards sustainable use of resources is important for the conservation and management of ASLNP.

5.5 Land use system and the challenges of

Nature conservation in the ASLNP

The objectives of ASLNP, as outlined in one of the subtopics in this chapter, focus on numerous aspects which when combined would contribute to an improvement in the regional development in various ways. However, the definition of the goals lacks sound scientific data, clear administrative structure and other instrumental specifications which are needed for decision-making. Besides, the objectives primarily focus on nature conservation, while the main focus of a national park shouldn't be only directed to strict nature conservation alone, when it has to get the support of the local population. Because handling of only one may have an adverse effect on the other (Haslinger 2004). There is a need for the balance of the benefits from protected area on the economy, society, and ecology to sustain the natural resources, for the reason that protected areas cannot survive in complete isolation.

Despite the need for zoning (laying down regulations about how the resources in question may be used) in protected areas, the statement by Hillman (1993) indicates that Ethiopian national parks are set aside for the conservation of biodiversity and should be free of human induced consumptive activities. That means the land use system in national parks is restricted to non-consumptive elements. Failures to follow and implement the appropriate strategies to realize these objectives have led the national parks to host two non-compatible land use systems which focus on consumptive and non-consumptive elements within them.

5.4.1 Types of consumptive use of Resources

The uses of natural resources inside the Abijata Shala Lakes National Park are diverse and complex, and include various stakeholders one way or another. There are different ways of natural resource handling by different resource users, most of them destructive to the natural environment. In Ethiopia the goal to improve the state of the natural environment, which is the key objective of establishing protected areas, seems to be subordinate to economic improvement, hence nature conservation is paid less attention in the country.

A. Use of land and vegetation

The deliberate intervention of human beings on nature via land use is as old as the age of agriculture itself. The reputation of Ethiopia as one of the earliest crop domestication countries indicates that ecosystem modification has probably been an age-old phenomenon (Tewolde-Berhan 2006). As it has been stated elsewhere in this thesis the ASLNP area is inhabited at least since the last 80 to 100 years. Through time the area in the Park and its surrounding has been heavily influenced by settlement of large population including large area of cultivation, and a large number of domestic livestock. Regardless of the unsuitability of the soils for agriculture, the people have flooded into the park proper clearing the forest cover for cultivation, grazing and settlement. There are mainly two types of cultivation; One type is usually restricted to homesteads while the other type is a practice of shifting agriculture usually scattered in the park area (Mohammed 1993), one of the main factors for forest degradation.

From 1973 to 2000, agriculture alone was the driving force for about 83% of the natural vegetation loss in ASLNP (Bedru 2006). Currently communities at least from fifteen PAs are found either fully or partially within the Park proper engaged in farming and livestock herding. The local governments have already recognized the land holding by individual farmers in the Park area and collect tax for the farmland. As estimated by Ijuin (1996), the size of cultivated land was 4% of the total park area and the total livestock population was 3.5 times more than the human population. Currently much of the park proper (except the ostrich sanctuary) is under intensive

between. At this transitional period more people settled in the park. This idea is backed by the key informants from the park staff who said *"it was during the collapse of the derg regime people from the surrounding invaded the national park, destroyed all properties, and settled inside"*. Therefore, it can be said that migrant settlers are part of the inhabitants who gradually increased over time, although there might have been first people who were living inside. Elders in the group discussion witnessed that during the park establishment the inhabitants of the area were evicted out of it. They believe the park area has been inhabited by people at least for the last 100 years.

4.2.4 Livelihood system of the community

The simplest definition of livelihood is the means of living of people. Livelihood comprises of the capabilities, assets and activities required for living. Under conditions of fragile environment leading to famine, people take all actions, where some of them may not be beneficial either to the environment or to the households (Chambers 1997; Webb 1994). In this study in a survey of livelihood activities it is found that 98% of the respondents lead their life in agriculture (a combination of farming and livestock herding), and the rest 2%, with no land and livestock, use employment and fuel wood selling to lead their life.

Response	Frequency	Percent
Agriculture	98	98.0
Employment	1	1.0
Selling	1	1.0
Total	100	100.0

Table 12, Households' response to their means of livelihoods (Source: field survey, February 2008)

Many researchers have also indicated that livestock centered semi pastoralism is the center of rural households' livelihood around the rift valley region, even though it is loosing its importance to cultivated agriculture, which seems a recent activity in the ASLNP area. The people in this area practice farming, even though the land is not suitable for agriculture. Most farmers, who are cultivators of cereal grains such as maize, sorghum, teff, haricot bean, wheat and barely, rely on horizontally expanding rain fed crop production (NACID 2004; Stephenson 1978; EWNHS 1996; Jacobs et al. 2001).

Inhabitants use the park's degraded forest area for grazing, while the plains are used for farming and rearing of cattle. Although, livestock constitutes the chief principal



Figure18, the acacia trees once known as the "green umbrellas" have now become the main source of household energy. (Photo: Rezenom Almaw 2005)

People practice tree cutting for fuel wood, to produce charcoal and other materials to supplement their livelihood. They also make money by selling charcoal,

firewood and other wood products in major towns and cities around the park. This supplements their livelihood and is an important component, though it is destructive activity. Mohammed (1993) estimated, for the 930 ha of study area he covered, that a total of 1498 m³ of tree was removed from May 1991 - April 1993. According to him the amount of charcoal extracted from ASLNP in 1991 was 6,297 sacks, which amounted to 2.6% of the charcoal needed for the whole country.



Figure19, car loaded with charcoal. ASLNP serves as the main source for the increasing energy demand in the nearby towns. (Photo Rezenom Almaw 2006)

Bedru (2006) discovered that between 1973-1986 nearly half of the landscape in ASLNP underwent land cover change processes with more than 26% of

the entire area experiencing forest or land degradation. Only 1/5 of the degraded area has a chance to revive, while the remaining has undergone a permanent degradation. The rate of degradation processes in the ASLNP is almost three times more than the rate at which the ecosystems replenish themselves naturally (ibid).