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COLLEGE OF SOCIAL SCIENCES

DEPARTMENT OF SOCIAL ANTHROPOLOGY

NATURAL RESOURCES USE CONFLICT IN WILDLIFE PROTECTED AREA: THE CASE OF ABIJATA-SHALLA LAKES NATIONAL PARK, WEST ARSI ZONE, OROMIA REGIONAL STATE, ETHIOPIA

BY: JEMANESH KASSAW

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PRESENTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF ARTS IN SOCIAL ANTHROPOLOGY

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This is to certify that the thesis prepared by Jemanesh Kassaw Mekonnen titled: Natural Resources Use Conflict in Wildlife Protected Area: the Case of Abijata-Shalla Lakes National Park, West Arsi Zone, Oromia Regional State,Ethiopiaand submitted in partial fulfillment of the requirements of the Degree of Master of Arts in Social Anthropology. The thesis complies with the regulations of the university and meets the accepted standards.

Approved By Boards of Examiners and Advisor

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DECLARATION

I declare that this thesis entitled: Natural Resources Use Conflict in Wildlife Protected Area: the Case of Abijata-Shalla Lakes National Park, West Arsi Zone, Oromia Regional State, Ethiopia is my original work and has not been publishedby any other person except where proper citation and due acknowledgement has been made.

This is a true copy of the thesis.

Jemanesh Kassaw Mekonnen

Signature_____ Date_____

Addis Ababa University

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ACRONYMS

ACCORD	African Center for the Constructive Resolution of Disputes
ANP	Awash National Park
ASLNP	Abijata-Shalla Lakes National Park
BMNP	Bale Mountain National Park
CBC	Community Based Conservation
CRV	Central Rift Valley
CSA	Central Statistical Agency
DDWS	Dhudpukuria Dhopachari Wildlife Sanctuary
EIA	Environmental Impact Assessment
EWCA	Ethiopian Wildlife Conservation Euthority
EWCO	Ethiopian Wildlife Conservation Organization
EWNHS	Ethiopian Wildlife and Natural History Society
FAO	Food and Agricultural Organization
FDRE	Federal Democratic Republic of Ethiopia
FGDs	Focus Group Discussion
GDP	Gross Domestic Product
IBA	International Important Bird Area
ICDP's	Integrated Conservation and Development Projects
IUCN	International Union for Conservation for Nature
KM	Kilo Meter
NGOs	Non-governmental Organizations
NP	National Park
PAs	Protected Areas
PhD	Doctor of Philosophy
SMNP	Siemen Mountain National Park
UK	United Kingdom
UNEP	United Nation Environmental Programme
UNEP	United national environment protection
US	United States
WWF	World Wildlife Fund
WTO	World Trade Organization

Glossary of Local Terms

Abba	Father, owner, or any important Picture in the community
Abba gadaa	Leader of gadaa system of Oromo
Abbeera /adara	Father's brother and maternal kin
AddaBaanee/Aseennaa	Elopement
Afaan Oromo	Oromo language
Akaakayyuu	Grandfather (father's or mother's father's)
Akko	Grandmother (father's or mother's mother)
Anaa/Ardaa	Closely related kin groups
Arsooma	Arsihood
Balballa	Sub- lineage
Bimbetoo	Substituted marriage
Buttaa	Abduction, marriage constructed by force
Dhaala	Widow Inheritance
Dhirsa	Husband
Dubarooleehinheerumiin	Unmarried daughters
Dubartii Takkaa olFuudhuu	Polygamous marriage
Eesuma	Mother's brother
Fira	Relative
Firumma	Affinal group
Fudhafi heeruma	Marriage
Gabbara	Bride wealth marriage
Gadda	Mourning
Gadda	Indigenous socio-economic and political organization of Oromo
Godantu	Transhumance

Golga /mana	House
Gosa	Clan
Guddifacha	Adoption
Gumaa	Blood Price
Hadhaa/hadhoti	Mother/Mothers in case of plural marriage,
Hangafa	First born, first wife or elder
Harma Hodhaa	Creating ritual relations through symbolic suckling of breast
Ijoolee	Children, sons or daughter
Ilmoolee dhiiraa	Married and unmarred sons
Kadhacha	Marriage based on agreement between two families
Kebele	The smallest administrative unit of government structure
Maandha	Younger wife in polygamous marriage practice
Moggaasa	Adopting an alien adult or stranger into a clan or a tribe
Niitii	A wife or a married woman
Safuu	Fear, respect, pity or shame
Siinqee	Thin long stick used by married women for ritual purpose and also used to show solidarity among women
Waaqa	Creator /God/
Waaqeffannaa	Worship of *Waaqa*
Walgara	Exchange marriage
Wal-hawwatu	Shared love marriage
Warra	Two or more household group organization
Hidda	Root
Wasiila/abbeera/wasiiloota	Father Brother or brother-uncle /s from the father's side

Woreda	Amharic term, which is represents to Ethiopian government Administrative body below Zonal administrative, corresponding to district.

Abstract

Conflict over natural resources use in wildlife protected area is the major problem for the conservation of natural resources and for the community living in the area. This study was conducted in Abijata-Shalla Lakes National Park (ASLNP) to assess the nature (or state) of conflict over natural resources use in the area. The study has three main objectives: identifies of the main natural resources use conflict; explain causes of conflict between local community and park management, and describe the effect of resources use conflict over the park. The primary data was gathered through in-depth interview in which 20 peoples(five woreda administration office experts, three tourism and two culture experts, and 10 selected community members from six kebeles),key informant interview for 15 participants (five Abba Gaddas, five park experts, and five rangers), and three focus group discussions (FGD). The data were thematically organized. The finding of this study revealed that mineral extraction, human-wildlife conflict, industrial activities, livestock grazing, deforestation, agricultural expansion and poaching are the major natural resources use conflict between the park management and community. Additionally, the study showed that the causes of natural resources use conflict over the park mainly emerged from demographic factors: human population growth, economic influence: lack of incentive/benefits/ program for communities, dependence on park resources for livelihood, weak wildlife policy: limited community participation and consultation program, administrative problem: uncertainty of the re-demarcation process, lack of secure land tenure/certificate and overlapping industrial and investment activities.. The study also showed that the park natural resources and wildlife habitats were diminishing in alarming rate due to misuse of the resources by the local community and other unfriendly stakeholders. In general natural resources use conflict in Abijata-Shalla Lakes National Park is widespread and posing serious challenges to conservational management.

Keywords/Terms: Arsi people, Protected Area, Ecotourism, Community-Based Conservation, Conservation, Natural Resources, Park, Tourism, Community and Wildlife.

CHAPTER ONE

1. INTRODUCTION

1.1. Background of the Study

Ever since the earth was inhabited, humans and other life forms have depended on things that exist freely in nature to survive. These natural resources include water (seas and fresh water); land, soils, rocks, forests (vegetation), animals (including fish), fossil fuels, and minerals. Therefore, these natural resources are the basis of life on earth and are vitally sources of income for livelihoods to local community economy and aesthetic value (Sandwith, 2001). To conserve these unique natural resources, different countries set up a number of protected areas: National Parks, sanctuaries, wildlife reserves, community conservation area and controlled hunting areas (Engle and Korf, 2005).

Protected areas (PAs) are an area of land and/or sea especially dedicated to the protection and maintenance of biological diversity, natural and associated cultural resources, and managed through legal or other effective means (Dudley and Stolton, 2008). Even though, PAs are a unique natural habitats human encroachment is restricted in order to conserve the biodiversity for future generations. However, local communities are directly or indirectly depended on natural resources to fulfill their basic needs, and such circumstances gradually became challenging for most protected areas and lead to lose of natural resources and distraction of wildlife habitat. Additionally, when natural resources are poorly managed or without consideration of community context they can contribute to tensions that can escalate into violent conflict over in protected areas (UNEP, 2014).

The relationship between people and protected areas has long been an area of active research in ecological anthropology, as well as, in conservation ecology (Lucas, 2012). The recent interest in protected areas as an anthropological subject also reflects a profound increase in the extent and complexity of protected areas. They are a way of seeing, understanding, and (re)producing the world. As such, they are rich sites of social production and social interaction (West, et al, 2006). On the other hand, human populations, socially organized and oriented by means of particular cultures, have ongoing contact and impact upon the land, climate, plant and animal species, and other humans in their environments. And such inter in turn have reciprocal impacts (Barnard and Spencer, 2005). Conflict in the context of conservation scheme stems due to conflict between

groups interests against that of the protected area. The conflicts are usually related to issues of poverty and population pressure. Local people's need to access grazing land, firewood, building materials, fodder, medicinal plants, hunting etc. within the conservation area is in conflict with the objectives of the conservation area (FAO, 2000).

According to Andrade and Rhodes (2013) Cited from Chape et al (2008), the world reached a total of 144,296 protected sites, covering an area of 19,381,000 km², or 12.9% of the earth's land area. Africa is enriched in biodiversity and different scenic landscape and natural resources found in it and has a total of 1166 protected areas which cover total of 2,808km^2(23.3%) of eastern, southern and central Africa and 1,272,840km^2(9.7%) of northern Africa and the middle East. In Africa large proportion of population are dependent on natural resources and the environment to subsistence. Population growth, human movements, current and future land scarcity, climate change, political and social instability all impact on the natural environment, thereby, on livelihoods. Therefore, the allocation, management and exploitation of increasingly limited natural resources can contribute to conflict in protected areas of Africa (ACCORD, 2009).

Similar to other countries, Ethiopia is gifted with abundant natural resources. Ethiopia's protected area system covers 16-17% of total areas of the country which is 1.11 million km^2. Much of the natural habitats of the country are found within the Ethiopian protected areas that includes wildlife and forest. Protected areas are unique in terms of their biodiversity and contain high levels of endemism. In Ethiopia, there are twenty-one national parks, three wildlife sanctuaries, three wildlife reserves, six community conservation areas, two wildlife rescue center, twenty controlled hunting area, and six open hunting areas. PAs are playing an important role for providing valuable ecosystem services in the fight against poverty. But, pressure on natural habitats is increasing, and resulted unsustainable use of the natural resources in the protected areas (EWCA, 2013).

The Central Rift Valley (CRV), area covers an area of 1.3 million had and consists of the four Lakes; Lakes Zeway, Abijata, Shalla and Langano (EWNHS, 2009). Abijata-Shalla Lakes National Park (ASLNP) is one of fourteen federal National Parks which are under the

administration of the Ethiopian Wildlife Conservation Authority. The park was primarily proposed as a national park in 1970 for the protection of resident and migratory birds without an official gazettement by the law. The park covers an area of 887 km^2, over half of which is taken up by Lakes Shalla, Abijata and Chitu. Abijata-Shalla Lakes.The National Park has enormous natural resources including different kind of species of fauna and flora (Flower, 2011). However, due to human-induced activities, the park wildlife and their habitats are under distraction.

The local communities living in and around Abijata-Shalla Lakes National Park (ASLNP) are agro-pastoralists and pastoralists and their household economy depends mainly on agricultural and livestock production. Most of them depend on the park resources to generate income and it rises a conflict between them (Molla, 2017). Accordingly, the present study is conducted on this area in order to assess the major natural resources use conflict over the park with relation to socio-economic factors between the park management and local communities inside and around the park.

1.2. Statement of the Problem

According to Sandwich (2001) cited in Hailu (2011) protected areas (PAs) are maintaining biological and cultural diversity to improve the livelihoods of local communities, opportunities for income generation through tourism revenues, provide the homelands for many indigenous peoples and bring countless benefits to society in general. But protected lands are off-limits to illegal hunting, livestock grazing, logging, mining, human residence and other activities that exploit natural resources (Fetahi, 2016). Thus, resource utilization concern of the community who live in and around the protected area, does not match with the management strategy of protected area; this variety of interest over the natural resource create conflict between them. As result, protected areas (e.g. national parks) often leads to conflicts between local communities and the area's administration. In turn, these conflicts often affect both the protected areas and the local community as strained relations bear the danger of gridlock on park planning, conservation objectives or regional economic development (Ruschkowski, 2009).

Many parks have been unsuccessful to fully integrate important factors, such as economy, social, cultural, and political issues in their management. In some cases, this has triggered adverse social impacts on local communities, disrupting their traditional ways of living and limiting their

control of and access to natural resources. Such an outcome can undermine protection policies through conflicts between park managers and local communities. The success of conservation strategies through protected areas may lie in the ability of managers to reconcile biodiversity conservation goals with social and economic issues and to promote greater compliance of local communities with PA conservation strategies (Andrade and Rhodes 2012).

In Ethiopia, since the early 1960s wildlife conservation areas have been set aside as protected areas. Even though great efforts have been made to conserve some of ecosystems, it has never been possible to prevent the local communities from using natural resources (Feyera, 2001). Particularly, Abijata-Shalla Lakes National Park (ASLNP) shares many of the common conservation problems facing protected areas in Ethiopia: contested land use and resource ownership rights, human settlement in and around protected areas, as well as lack of agreement between conservation priorities and pressing livelihood demands (Bethlehem, 2013). On the other hand the local community inside and around the park area suffer from food insecurity and other linked social problems. This forces them to depend on natural resources for their subsistence economies which led to degradations of natural resources and affects the management of wildlife protected area goal (Adem, 2008).

Human settlement in the area started prior to its establishment as a national park, with some 2840 people residing inside the boundaries as of 1971 (Flower, 2011). In the past fifty years, the population has substantially increased and approximately 55, 0000 people living inside the park with a density of 10 people per household. Consequently, more than 40 km^2 of the parkland is converted into agricultural land. The Park is serving as source of food, water and raw materials (construction wood, wood for agriculture tools and household furniture, thatching grass, charcoal wood, fuel wood, animal fodder). Sand extraction within the park boundaries are equally exploited by the resident in the Park and nearby villagers escalating. These are causing adverse pressure on the Park. The park resource also faces external threats associated with activities on the Lakes and their tributary sources. Due to industrial and irrigation activities taking place around the Lake and its main water sources, the volume of Lake Abijata's water is decreasing considerably. Abijata-Shalla Soda Ash Share Company is also located on the northern shore of Lake Abijata, inside the park. The factory pumps and evaporates the water from Lake for the

production of Soda Ash which used as raw material to produce glass, bottles, and textiles (Flower, 2011). These activities are complicating conservation works at the park (and the Lake), which is home to greater and lesser flamingos and serving the most important bird paradise site. Several researchers have been conducted on Abijata-Shalla Lakes National Park; multiple enactments of park resources (Bethelehm, 2013); conflicts and resolution method (Fekadu, 2011); assessment of factors driving environmental change for management decision-making (Flower, 2011); environmental crisis (Feyera, and Fekadu 2001); attitudes and perceptions of local people towards park (Kumssa and Bekele 2014) and integrated assessment of ecosystem services and stakeholder analysis (Tafesse, 2008) are some of the specific studies conducted in the Park. However, specific study regarding natural resources use conflict between park management and local community was limited. Researchers also missed natural resources use conflict associated with socio-economic aspects.

An MA Thesis by Fekadu (2011) on root causes of conflict between the park management and the local community and customary conflict resolution and co-management mechanisms reflected that land degradation, population pressure, and inefficiency in property rights as the root causes of conflict between the Park and local community. Additionally, the study stated that unclear land tenure and overlapping claims: lack of coordination among the state agencies and conservation and economic development policies, lack of population participation in park management, human wildlife interaction and poor information sharing were causes of conflict over the Park. Even though, this research is important to understand causes of conflict between the park management and local community, major gap was observed in addressing the main natural resources use conflict over the park area. In relation to this, the study also emphasized that there are customary conflict resolution mechanisms between the park management and the local community, but it could not fruitfully processed with the local community and the government institutions due to power imbalance.

In their study, attitudes and perceptions of local people towards park Kumssa and Bekele, 2014, found that 96% of respondents depended on Park resources to generate income and it leads to conflict between Park management and local community because the living communities consider the Park as their communal pasture area and the study showed that 85% of the respondents were unhappy on the existence of the Park. However, their findings, clearly could

not mentions resources use conflict and causes of conflict related to socio-economic aspects of local community. Therefore, the present study hoped to fill the existence of the gaps in this regard, and to address the major natural resources use conflict, the causes and the effects of natural resources use conflict over the study area.

1.3. Objectives of the Study

1.3.1. General Objective

The general objective of this study is to assess the existing natural resource use conflict between the local community and park management in Abijata-Shalla Lakes National Park.

1.3.2. Specific Objectives.

1. To identify the main natural resources use conflict in Abijata-Shalla National Park.
2. To explain the causes of natural resources use conflict between local community and park management.
3. To describe the effect of natural resources use of conflict over the study area.

1.4. Research Questions

1. What are the major natural resource use conflicts in Abijata-Shalla National park?
2. What are the causes of natural resources use conflicts between local community and park management?
3. What are the effects of natural resources use conflict over the study area?

1.5. Delimitation of the study

The study was delimited to explore natural resources use conflict; causes of natural resources use conflict and its effects over Abijata-Shalla Lakes National Park in West *Arsi Zone* of Oromia Regional State. The research targeted community who were living in and around the park area, *Abba Gedda,* park experts and rangers, *woreda's* administration and culture and tourism experts were included.

1.6. Research Methodology

This section presents the process in which the researcher used to collect the data over the study area which is included research design, sources of data, sampling techniques, the methodology and techniques of data collection based on the facts were discussed. In addition, data analysis and the ethical considerations are also comprised.

1.6.1. Study Design

The qualitative methodology is an interpretative approach and the hallmark of anthropology to exploration of complexity, degrees of human interactivity and culture. As a research discipline, anthropology combines humanist and social science strategies. This method sets anthropology apart from other disciplines in ethnography in which the qualitative process of exploring in depth the whys and how's of human culture, behavior, and expression (Goldman and Borkan, 2013). Additionally, qualitative research can be characterized as more subjective in nature than quantitative research and involves examining and reflecting on the less tangible aspects of research subjects values, attitudes perceptions (Silverman, 1993). Thus, to do such kinds of study usually, anthropologists, go to a field to collect data and stay within a particular community by actively participating and constructing a holistic and contextual view of the phenomena under study. Hence, I have chosen qualitative methodology; to explore views, perspectives, beliefs, and practices of study participants over natural resources use conflict in Abijata-Shalla Lakes National Park. Thus, the qualitative research approach is acceptable to studies of explore values, attitudes and perceptions of selected community members of the area: park experts and rangers, *Abba Gadas, woreda* and *kebele* administration leaders, tourism and culture experts were the major targeted groups to investigate of study.

1.6.2. Study Population

The study population for this research includes men and women in different age categories, who live in and around the national park. The study groups were chosen from *Abba Gaddas*: based on their knowledge of the relationship between the park and local community from establishment till now; for *woreda* administration, culture and tourism experts, park experts and rangers is based on their academic knowledge and work experiences. *Shalla Bila, Gale Fikalo, Daka Horra Kello, Daka Dallo Harangama, Mudi Arjo and Desta Abijat*a *kebele's* leader are participated because these *kebeles* are found on the park territory and the conflict between park management and the local community is more pervasive.

1.6.3. Sources of Data

To expose the natural resources use conflict in Abijata-Shalla Lakes National Park (ASLNP), the study employed both primary and secondary sources of information. The primary sources used to collect data were in-depth interviews, key informant interview, focus group discussions and

observation. In addition, secondary data were used to supplement the data which involves the books, published and unpublished materials, article reviews, reports, thesis and dissertations, and internet sources.

1.7. Data Collection Methods and Instruments

This exploratory research is used qualitative method of data collection instruments. Particularly, the researcher used an in-depth interview, key informant interviews, focus group discussion and observation.

1.7.1. In-Depth Interview

This type of qualitative data collection instrument is an important tool to dig out detailed information of one's perception, experience and impression about certain issues (Goldman and Borkan, 2013). Additionally, individual interviews allow participants to tell their stories, uninterrupted, in detailed and coherent manner, without worrying about what their peers may think. The researcher conducted semi-structured interviews with both men and women in the area based on purposive sampling technique. The actual numbers of interviewees were 20 which include five *woreda* administration office experts, three tourism and two culture experts, and 10 selected community members from six *kebeles.* The participants were selected based on age, sex, profession, experiences, social status, and acceptance among the society. The interviews were conducted in *Afan Oromo* and *Amharic* languages based on the preference and ability of the participants. The interviews were conducted on face-to-face basis in order to grasp more about the issue and observe the reaction of the participants over certain issues under interview. Therefore, the study was conducted interviews with them based on the interview guide questions and recorded the answers of the participants.

1.7.2. Key Informant Interview

Key informant interview as an instrument of qualitative research method is used to obtaining special knowledge from the informants, who are expected to have special knowledge on a given issue. Therefore the researcher selected key informant interviewees due to their knowledge and professional experiences in relation to the issue under study. Thus, key informant interviews were proceeding with *Abba Gaddas* from the surrounding of the area, park experts and rangers. In view of that, a total of 15 key informants: five *Abba Gaddas,* five park experts, and rangers were interviewed.

1.7.3. Focus Group Discussion

Focus group discussion is a useful method to obtain information on relatively unstudied topics for which the full ranges of relevant domains are not known and dynamic interaction among participants of interests (Goldman and Borkan, 2013). Researchers choose focus group discussions over individual in-depth interviews when data acquisition benefits from the dynamic that is created through group discussion. The discussion often elicits information and insights that might not be gained from an individual interview, including the colloquial ways in which participants speak with one another about working in or seeking care from the practice (Goldman and Borkan, 2013). Therefore, the study conducted three FGDs that consisted of 6 individuals each from inside and around the park residents. The first focus group discussion was carried out with selected women from the community members in and around the park (FGD-1); the second focus group discussant was conducted with six *kebele* leaders (*Shalla Bila*, *Gale Fekalo*, *Daka Horra Kelo*, *Daka Dallo Harangama*, and *Mudi Arjo* and *Desta Abijata* (FGD-2) and finally, youths representative of the area (FGD-3) were participated in the third FGD towards the completion of the study. The participants were selected based on age, experience and sex. It can be a useful way of finding out what the main issues and concerns of any group are and bringing to the surface issues that might not otherwise have been discovered the dynamics of a group can often make people bolder in advancing their opinion (Saunders et al., 2003). In the focus group discussion process the role of the moderator is to draw out information from the participants regarding topics of importance to a given research investigation (Berg 2001), the researcher was liable for moderating the discussion which lasted for one hour.

1.7.4. Observation

Observation is a method of collecting evaluative information in which the evaluator watches the subject in his or her usual environment without altering that environment. Observation is also used to evaluate an ongoing behavior process, event, or situation. In another way, it can be overt, when the subject and individuals in the environment know the purpose of the observation, or covert, when the subject and individuals in the environment are unaware of the purpose of the observation (Holmes, 2013). And it helps the researcher to yield information that people are in general unwilling or unable to provide and helpful to discover complex interactions in natural social settings (Russel, 2006).

Thus, in order to see the natural resources use conflict in Abijata-Shalla Lakes National Park the researcher used observation method in the area. The study was observed that the major natural resources attractions sites of the park and on such sites there were several wildlife species, birds, Lakes and scenery landscape and foreign and domestic tourists were visited the park resources.

On the contrary, the researcher witnessed threats of the park management: settlement, livestock grazing, tree cutting, charcoal making and mineral extractions are the major problem seen in the area. The forests and shrubs are decreasing and going a warm area and it is similar to what the informants and discussants were told. Additionally, the researcher observed that which is unique and impressed was the work of the rangers. To mitigate the illegal activities over the park the rangers were stayed in a particular camp site with a rent and patrolling the area; beside these they, also give awareness creation for local community to protect the park resources.

1.8. Sampling Techniques

According to, Bernard (2002), data gathering is crucial in research, as the data is meant to contribute to a better understanding of a theoretical framework. To do this research the study participants were selected by using purposive sampling and this sampling technique is most effective when one needs to study a certain cultural domain with knowledgeable experts within. That is, elements are selected based on the researcher's judgment that they will provide access to the desired information (Dattalo, 2008). Therefore, in-depth interview participants and key informant interview were selected by using this sampling technique. While the remains of the FGD participants were administered through snowball sampling. In snowball sampling, the researcher was starting the sampling process by contacting a few individuals for inclusion in the sample. Those people have been then asked for names of additional people who might be willing to be part of the research project. The process was used to select the local community until satisfactory information was obtained (Ruane, 2005).

1.9. Method of Data Analysis and Interpretation

In this study, in order to reach on the reliable information on the natural resource use of conflict qualitative analysis and interpretation were employed to answer the research questions. The primary data is gathered by using qualitative data collection tools were thematically organized based on the specific objectives of the study. The primary data to be collected through in-depth

interviews and FGDs realized for validity of the data. In addition, before the actual analysis, the collected data were sorted and arranged in accordance to their source and type. The collected data was transcribed, compiled and further elaborated into meaningful and patterned information soon after the completion of that particular data collection session. Finally, the whole data were analyzed in a thematically organized way by following to the original descriptions of the field note and recorded information.

1.10. Ethical Considerations

The right of privacy of individuals, voluntary nature of participation and rights of individuals to withdraw partially or completely from the process: consent and possible deception of participants: maintenance of the confidentiality of data provided by individuals or identifiable participants to the ways in which the researchers seek to collect data, are the major ethical issues to consider in a particular research (Saunders et al., 2003). Therefore before starting the fieldwork, the researcher obtained a permission letter from department of Social Anthropology Addis Ababa University, Ethiopian Wildlife Conservation Authority (EWCA), Abijata -Shalla Lakes National Park (ASLNP) Office, *Negelle Arsi and Admi Tulu Jiedo Combolcha woerda* administration, culture and tourism office and other study participants. So based on the above ethical guide the researcher tried to keep the major ethical issues and consider and also respect the rules and norms of the community. The selected participants were informed the purpose of the research whether they could participate in the research or not. In-depth interview, key informants and the focus group discussions were asked their consent to participate in the interviews and discussants and also in order to maintain the anonymity and confidentiality of the research participants, the researcher decided to refrain from using their names.

1.11. Significance of the Study

Abijata-Shalla Lakes National Park has vast potential of natural resources; however, the park resources get worse for the use of park resources. Hence, the present study will provide to a rich description of natural resources use conflict between park management and living community. It provide to understand the practice of natural resource use conflict for concerning body, and to make a management plan and finishing of the park demarcation and also it used to prepare land use plan over the park. With regards, to the local community the study is important to give awareness for stakeholders and also it convey to insight alternative source of incomes for the communities in relation to environmental conservational activities. The finding of this research

also will provide valuable information to the government, policy makers, and other stakeholders about the natural resource use of conflict in Abijata-Shalla Lakes National Park. Finally, the results of study will important source of data for other researchers conducting studies on a similar topic.

1.12. Organization of the Thesis

This thesis is organized into six chapters. The first chapter deals about background of the study, statement of the problem, objectives of the study, research methodology, and data collection tools and procedures. The second chapter is about the literature review associated to the research topic and conceptual framework. It also presents empirical studies in the context of natural resources use conflict in wildlife protected area. The third chapter gives brief and general information about the study area and the community understudy. The fourth chapter discusses major natural resources use conflict in the park territory: mineral extraction, overgrazing, agricultural expansion fuel hood production and human-wildlife conflict were covered. Chapter five describes the causes of natural resources use conflict and it explains the reasons behind occur the conflict understudy and also deals about the effects of natural resources use conflict over the park and the last chapter presents the conclusion and summary part of the study.

CHAPTER TWO

2. REVIEW LITERATURE

2.1. Definition of Terms and Concepts

Natural resources: Natural resources are means of anything that we use from our environment to achieve our objective. However, natural resources play in triggering and sustaining conflicts. The resources that generate many of these problems is largely oil and gas, diamonds, columbium tantalite (Colton), drugs, gold, platinum, uranium and other gemstones, timber, coffee, water, land, grazing pasture, livestock and rubber (Bongani, 2012). Increasingly, the use of such natural resource is being recognized, both in terms of socio-economic benefits and in terms of their contribution to other aspects of human well-being, through direct and indirect use as well as non-use values. Regarding to conservational approach conservationists, seek to effectively protect biodiversity; for tourism companies, basis for eco-tourism development; for pharmaceutical companies; source of genetic information for drug development; and for surrounding local communities and natural resources are conserved areas and can signify restricted access to livelihood resources Gilbert,(2014) Cited from Hammill and Bescançon, (2010). On the contrary, the struggle over access to and control over natural resources in protected area constitutes considerable grounds for tension and conflict (Bongani, 2012). In some cases, resource conflict is embedded in social and economic grievance narrative.

Wild land: The casual definition of a "wild land" was: "an area characterized by its wild natural environment, including forest, savanna, swamp, coastal zone, marine, and so on, where the intervention of humans had been minimal; or stated alternatively: where natural capital and natural ecological processes still dominate the area." This definition excluded agriculture, grazing with domestic livestock, and forest tree plantations (Dudley and Stolton, 2008).

On the other hand, in the recent past, before the expansion of wildlife promotion and education, some people perceived "wildlife" is only large mammals, but wildlife include variety of all living organisms inhabiting in the wild, at the genetic, species and eco-system levels on earth (Amare, 2015).

Protected area: The definition of a protected area in a broad sense is "A clearly defined geographical space, recognized, dedicated and managed, through legal or other effective means,

to achieve the long-term conservation of nature with associated ecosystem services and cultural values". This broad definition is also subdivided into six categories: strict protection areas (scientific reserve, biological and marine sanctuary), national parks, natural and cultural monuments, habitat management areas, nature reserves (forest reserves, forest model) and protected landscapes (via panoramic, ecological corridor and recreational areas) (IUCN, 1994).

2.2. Related Empirical Studies

Historically, creation of the protected areas (PAs) of restricted use controls conservation policies throughout the world and reveals the western idea of separation between pristine nature and human-modified habitats. But gradually, this conservation strategy has caused the increase of environmental conflicts involving territorial rights local communities throughout the world.

Anaya and Espírito-Santo(2018) was study on protected areas and territorial exclusion of traditional communities with relation to the social impacts of environmental compensation in Brazil; and in their study they found that without the resettlement, and compensation of local people were living in protected area; projects were established and it causing severe restrictions to their traditional livelihoods and well-being, including access to natural resources such as water, fisheries and timber, and non-timber products, risking their food security, cultural identity, and social integrity.

Similarly, in Bangladesh one study was conducted in Dhudpukuria Dhopachari Wildlife Sanctuary (DDWS) by Raihan et al.(2017) related to protected area versus people conflict and a co-Management; and conflict between the authorities of and local people over wildlife conservation is the most serious conservation and these conflict can be the allocation, management or use of natural resources results in attacks on human rights or denial of access to natural resources to an extent that considerable to diminishes human welfare and it must co-management programme activities to tackling the conflict between them. On this case, their finding was showed that from 195 respondents majorities of respondents were did not receive any potential benefit from the DDWS, and almost one-third of respondents reported that they had problems with the DDWS and they were unable to control the damage caused by wildlife over the local people. More than 80% of respondents reported that the co-management approach was not effective in mitigating conflict between people and protected areas and 45% of the

participants in co-management program reported greater effectiveness of the co-management approach than non-participants.

In Africa protected areas national conservation agencies safeguard ecological wealth in some of the world's largest, most remote, and politically unstable regions where rangers and their staff risk their lives every day to protect African's parks and wildlife. Many of these protected areas are vast landscapes that stretch across country boundaries and are home to various wildlife species, treated by poaching and human-wildlife conflict; Advancing large scale infrastructure, commercial agriculture, and logging, as well as, extractive industries are encroaching on African's protected areas and buffer zones, putting these important conservation areas at risk. Resources allocated for biodiversity protection are scarce. Managing parks takes substantial resource and across Africa protected area authorities lack adequate resources to effectively manage protected areas whether they are tacking armed poaching groups or mitigating human-wildlife conflict, protected area and wildlife management authorities already operating on meager budgets are stretching thin (African Wildlife Foundation).

To strengthen the above idea Jesse et al (2013) were study in Ghana, Digya National Park on protected area management and livelihood conflicts and on this national park the residents of fringe communities acting individually or as groups to carry out illegal activities for economic survival which exerted pressure on the park and posed threats on its survival. The authors concluded that poverty, population growth and livelihood issues were the root causes of most of the pressures and threats identified. The results revealed that a major underlying source of conflict in the park was poverty in neighboring communities.

In Ethiopia, the livelihoods and well-being of rural poor people are more vulnerable to the establishment of protected areas, because their livelihoods were dependent mainly on agriculture and on the available natural resources (Young, 2012). Due to these, the relationship between natural resource management and local people in protected area is very complex. Shortages of natural resources lead to competition which may result in conflict (Wood, 1993). Therefore in the context of protected area conflict refers to the relationships involving parks, local people and other stakeholders who have or perceive themselves to have, incompatible values, needs, interests and goals.

In Ethiopia, protected areas are often referred to as “Paper parks” since the pressure from the poor rural population is larger than the possibility to protect the natural resources from exploitation. Often the rural communities were already settled there before they were decreed as protected areas, especially for new parks, which make it difficult to completely restrict their access to resources without compensation (Bekele and Estifanos, 2018).

Similarly, lack of sense of ownership, limited awareness, population growth, lack of coordination among various stakeholders, conflicts over resources and issues of boundaries, invasive species, illegal charcoal production and climate change, and poverty are challenges which are affecting conservation and management of National Parks in Ethiopia

Kumssa et.al, (2014) was study the attitude and perceptions of local residents in Abijata -Shalla Lakes National Park and his finding showed that most (96%) respondents were depended on land to generate income making the competition with wildlife more direct and intense and the local community believed that the park natural resources are consider as their communal pasture area and as result conflict between the park management and local community exists due to resource utilization in park area. He also pointed that 85% of the respondents were disappointed on the existence of the Park resulting large wildlife areas have been exposed to land degradation and destruction of habitats. Feyera, and Fekadu, (2001), study on environmental crisis in Abijata-Shalla Lakes National Park and in their findings the park wildlife resources become decreasing in comparison to other protected areas in the country. The composition and interactions of the causes for the destruction of the park resources are the underlying economic, political and social factors in the area and the major wildlife problem over the park; expansion of agriculture land, settlements, extensive livestock farming, fuel wood utilization, timber utilization, pollution, poor sight investment operation and mining of mineral resources were the major problem which is existing within the park. On the other element, Fekadu (2011) conducted MSc. thesis on conflict and resolution method in protected area and according to his study there were conflict over the park based on the resources utilization and he was marked to tackling these conflict the elder’s institutions inside and outside the park can be important to resolve the conflict. However, there is implementation problem effectively manage with local community and government institutions due to power imbalance.

2.3. The Selection of Criteria for Protected Area

According to IUCN (2008), pointed out the selection of guideline to establish a protected area, and the area should have a high potential national and international uniqueness (irreplaceable) value for the conservation of one or more species, ecosystem services, habitat types, landscape features, scenery, and cultural/traditional feature contain a representative sample of major natural regions, features or scenery, where plant and animal species, habitats and geomorphological sites are of special spiritual, scientific, educational, recreational and tourist significance.

The area should be large enough to ensure, alone or with ancillary support from an established network of other protected areas, the conservation of the viability and natural dynamics of the biodiversity features which were the purposes of designation over their natural spatial and temporal scales. Contain one or more entire ecosystems not materially altered by current human occupation or exploitation. The area also should play, alone or as part of an existing network of associated areas, an important role in the conservation protection and maintenance of viable populations survival of species, (incorporating, as appropriate, breeding areas, wetlands, coral reefs, estuaries, grasslands, forests or spawning areas, including marine feeding beds) (IUCN, 2008). And the area should be one where essential components of the habitats for target species, of global, national or local importance are protected. Protection of the habitat is essential to the well-being of nationally or locally-important flora, or resident and migratory fauna. Conservation of these habitats of these species or groups of species should depend upon active intervention by the management authority, if necessary through environmental habitat manipulation. The size of the area should depend on the habitat requirements of the species to be protected and may range from relatively small to very extensive (IUCN, 2008).

Generally, protected areas–national parks, wilderness areas, and community conserved areas, nature reserves and so on are a mainstay of biodiversity conservation, while also contributing to people's livelihoods, particularly at the local level. Beside this, protected areas are places where conscious efforts are made to preserve not only wild species, but also the ecosystems in which species live. In parts of the world where most of the landscape has already been transformed by agriculture or industry, protected areas may be the only natural or near natural ecosystems remaining for large areas. The wider socioeconomic and cultural values of these natural

ecosystems are increasingly being recognized, as important ecosystem services they provide (Dudley, 2015).

Protected areas (PAs) are also the core of efforts towards conserving nature and the services it provides us-food, clean water supply, medicines and protection from the impacts of natural disasters. Their role in helping mitigate and adapt to climate change is also increasingly recognized; it has been estimated that the global network of protected areas stores at least 15% of terrestrial carbon (IUCN, 1994).

2.4. The Growth of Protected Areas

Although states and other political entities have protected wildlife and forests through the establishment of reserves for many centuries, large-scale expansion of protected areas has occurred in the past 25 years, often in settings with long-established human populations. These were setup to conserve biodiversity through protection of the habitat in which undomesticated plant and animal species live. The historical antecedents of protected areas can be located in royal game and forest preserves in Europe and Asia and in colonial policies in Africa and Asia, which established forest preserves for the management of timber resources and game preserves for recreational hunting by colonial officials (Benjamin, 1980).

The establishment of the first protected area (PA) in the world, Yellowstone, in 1872, was a response from the western civilization to uncontrolled degradation of biodiversity and ecosystem services (Lane, 2001). And majorities of (PAs) have followed the conventional and exclusionary approach applied at Yellowstone in 1872. As such, many parks have failed to fully integrate other important factors, such as social, cultural, and political issues. In some cases, this has triggered adverse social impacts on local communities, disrupting their traditional ways of living and limiting their control of and access to natural resources. Such an outcome can undermine protection policies through conflicts between park managers and local communities (Andrade and Rhodes, 2012). Before the 1970s, many terms, such as national parks, nature reserves, and wildlife sanctuaries, were used to designate conservation units. The need for a single term became apparent in international conferences, and in 1978 the International Union for the Conservation of Nature established "protected area" as the cover term. A typology of eight

categories of protected areas, distinguished by management objectives and practices, was codified in 1985 and has become the standard international classification (Benjamin, 1980).

Different studies were conducted over the historical development of national parks of Africa. And the result showed that in most African countries excluding few non-colonized nations such as Ethiopia, national Parks were established during the colonial period mainly for the purpose of hunting and tourism with little consideration to the interests of local communities (Solomon et al. (2014) cited from King, 2007).

2.5. Development of Protected Area Management in Ethiopia

Ethiopia possesses considerable biodiversity and natural resources, as well as many endemic species. The first recorded indigenous conservation oriented activity in Ethiopia took place during the reign of Emperor ZereaYacob (1434-1468). It has had, however, only limited success protecting some of these natural assets since establishing conservation and protected area program in 1965, due to the country's prolonged engagement in various armed conflicts (Jacobs and Schroeder, 2001).

During the time of Emperor Menilek II in 1909, the first formal proclamation of wildlife conservation was announced. Mainly illegal hunting of big game animals was strictly forbidden specially for elephants. But, the proclamation had its own limitation. Over time, Ethiopia under emperor Hailesellasie passed game law in 1944, which required that one can only hunt with a licensed permission, and to facilitate such activities the Ministry of Agriculture was, established regulatory body. This effort has been taken as turning point wildlife conservation in Ethiopia and persisted in force until replaced in 1965. The enforcement of these laws remained difficult owing to the lack of experience and trained personnel in the field of wildlife conservation Abyot (2009) cited from (Boshera, 2002). And then, by the time of Derge the Ethiopian Wildlife Conservation Organization (EWCO) was established in 1965 and formally recognized as an autonomous body in 1970 as governing body for protected area management as proclaimed in Negarit Gazeta in the year 1970. The EWCO's responsibilities during that period included establishing nine national parks, four wildlife sanctuaries, seven wildlife reserves, and 18 controlled-hunting areas between 1965 and 1980. It also was responsible for adopting and implementing a range of hunting and conservation policies, including the adoption of IUCN (the World Conservation Organization)

protected-area descriptions and guidelines classified all national parks as “Strict Conservation Areas’’ (Ketema,2017).

The central control of most protected area (PAs) including National Park (NPs) devolved away from the federal agency of EWCO to give regional governments more extensive management authority in order to foster a local sense of ownership toward (PAs) shift largely unique to Ethiopia. This shift was later formalized by the Wildlife Development Conservation and Utilization Policy and Strategy of Ethiopia (2005), which directed that protected area PAs should be managed with community participation at the federal or regional level, or by private sector.

The 1972 Conservation of Wildlife Regulations further limited settlement and hunting within national park, and typically excluded resource use by local communities (Jacobs and Schloeder, 2001). Such exclusion was burdened for local communities because (PAs) often included prime grazing lands and water sources and in 1991 community-based conservation programs were established in Ethiopian national parks; in an effort to gain local support for conservation. Participatory management and benefit-sharing were also adopted, along with the granting to local communities of limited ownership rights for some resources (Tessema, et al., 2010).

Currently, Ethiopian wildlife Conservation Organization (EWCO) replaced by Ethiopian wildlife Conservation Authority (EWCA) and it manages the federal government of protected area with relation to regional state of protected area. Presently, nearly 55 PAs cover 186,000 km^2, equivalent to 16.4% of Ethiopia’s surface area. From this, 168,932 km^2 are under regional control (90.8%), 12,486 km^2 are under federal control (6.7%), and 4,582 km^2 are under private-sector management (2.5%). Yet, as one of Africa’s poorest and most densely populated nations, and with more than 80% of its populace engaged in subsistence livelihoods, Ethiopia’s human population growth continues to pressure the country’s limited forests and arable lands. Protection efforts have failed to stem the loss of Ethiopia’s biodiversity, despite the shift toward regional control. National policies adopted since 1991 have sought to improve local relations, although existing laws are still inadequate to stimulate participation sufficient to garner widespread support (Tessema, et al., 2010).

According to Ethiopian Wildlife Conservation Authority (EWCA) (2009), the country earned about $19,000 US Dollar from entrance fees to national Parks in the year of 2008/09. And the

economic importance of forest resources in Ethiopia under six major benefits i.e. source of foreign currency, alternate energy sources, additional value to the Gross Domestic Product (GDP), job opportunity, source of revenue for millions of nationals, source of raw material for other economic sectors. However, the country's immense biodiversity potential is underutilized in the tourism industry due to lack of awareness, lack of integration between the local communities and law enforcement.

2.6. Community- Based Natural Resource Use Conflict in Protected Areas

The interaction between human being and nature was started before million years ago when human being was created. Their relationships have been increased and more intense during hunting and gathering (Amare, 2015). From such interaction we can conclude that human being is highly dependent on the natural environment for their livelihoods (Kweku and Regassa, 2013). And people everywhere competed for the natural resources and they need or want to ensure or enhance their livelihoods. However, the effects of environmental scarcity such as constrained agricultural output, constrained economic production, land degradation, social segmentation and disrupted institutions can either singly or in combination, produce or exacerbate conflicts among groups (Fekadu, 2011). Conflicts over natural resources are often occurring in protected area: growing competition over natural resources, demographic change (e.g. population growth, migration and urbanization); environmental changes that force people to alter their livelihood strategies (e.g. floods, recurrent droughts, altered river flows, changes in wildlife migration) (FAO, 2000).

These factors can push people to exceed the sustainable harvesting limits of renewable natural resources (forests, water bodies, grazing areas, marine resources, wildlife and agricultural land). In areas where the number of people is increasing, resources often need to be shared among more users with different interests. Therefore users range from farmers seeking access to agricultural land, pastoralists requiring pasture resources for livestock, and city dwellers requiring more meat, fish and cereals. But increased competition is not always the only cause of conflict. The scarcity of a natural resource; the extent to which the supply is shared by two or more groups; relative power of those groups; the degree of dependence on this particular resource, or the ease of access to alternative sources are became contested (ibid). Similarly, natural resources management policies, programs and projects were sources of conflict. New policies of

decentralization, devolution and collaborative management increase the decision-making power and influence of local communities, households and individuals. Such policies encourage communities to become more involved in decisions affecting their own livelihoods and the resources on which those livelihoods are based. Although such policies are helpful for sustainable livelihoods, the successful introduction of greater power sharing among different groups is often challenging. Policies, programmes and projects themselves can serve as sources or arenas of conflict, even though their intention is to reduce conflicts or improve livelihoods. Reasons include the following (FAO, 2000):

1. **Policies imposed without local participation***:* Natural resource policies and interventions are often made without the active participation of communities and local resource users. For example, some governments rely on centralized management strategies controlled by administrative units and technical experts. These often fail to take into account local natural resources rights and practices.
2. **Poor stakeholder identification and consultation***:* Stakeholders are people or groups who possess an interest in, or influence over, a resource. Examples of stakeholders are the local government and the community. However, such groups are often highly varied and contain many subgroups. So counting the community as one stakeholder group may be meaningless; because planners and managers identify stakeholders inadequately, or fail to acknowledge a group's interest in a resource.
3. **Inadequate or poor information sharing***:* Effective sharing of information on policies, laws, procedures and objectives can improve the success of programs and reduce the likelihood of conflicts. In contrast, lack of information on the planning agencies' intentions may lead to suspicion and mistrust.
4. **Limited institution capacity**: Conflicts arise when government and other organizations lack the capacity to engage in sustainable natural resource management. Not only do organizations face financial constraints for staff and equipment, but they also often lack the expertise to anticipate conflicts, or to handle conflicts that arise in the course of their activities.

The result has been conflict between protected area authority and local communities and often antagonistic to any conservation related activities as they hardly derive any benefits from such

activities. On one hand, there is an urgent necessity to protect natural areas, on the other, the livelihood needs of local communities have to be duly considered without which any efforts towards protected area conservation is bound to fail in the face of poverty stricken conditions of local communities (Nepal and Karl, 1995). The impact of protected areas on local community and economy could be positive or negative. The positive impacts of local community can include direct revenue from environmental protection, and the maintenance of ecosystem services such as watershed protection. The negative impacts can range from displacement of local communities to crop damage by wildlife, and sometimes include restricted access to resources and changes in land tenure. Management of protected area and the level of community involvement vary greatly between individual protected areas, organizations and countries, and in relation to their management category and form of governance (Ahemde, 2017).

2.7. Challenges of Protected are in Ethiopia

Protected areas play a vital role in biodiversity conservation. Over the past 25 years, the number of protected areas has grown. Ethiopia had only two protected areas before 1970 but today has more than 55 protected areas to conserve its natural ecosystems and wildlife heritage (Amare, 2015). However, protected areas (PAs) in Ethiopia faced a range of threats from anthropogenic activities (fire wood collection, farming, over exploitation, bush fire by the investors and farmers around the park, charcoal production and harassing wild animals, grazing by domestic animal, water extraction for raw materials, increased human population growth, expansion of invasive alien species, weak law enforcement, encroachment of human settlement, human wildlife conflict, hunting, poaching, lack of alternative livelihood activities) that threaten their existence and sustainability. On the other aspects, the national policies that established protected areas (PAs) typically limited local use of wildlife and other resources gradually; these policies have raised tension with rural community and today threaten to undermine conservation goals. Additionally, biodiversity conservation gaps are associated with lack of adequate capacity, shortage of funding, commitment, organizational set-up and lack of monitoring of the implementation strategy on the status & trends of threats. Besides, no organized information is available on the current threatening factors against biodiversity in protected areas of country. On the other hand, most of protected areas do not have legal status, and are inadequately protected. Even some of the gazettes, protected area (PAs) are facing problems that could potentially

deteriorate them and also lacking protected area networks and management plans (Ethiopian Institute of Biodiversity, 2014).

The performance of most protected areas results showed that most failed to accomplish their primary management functions, experienced low overall management efficiency due to limited financial support, and had deficiency in management and other staff (Solomon, 2014). Almost all national parks in the country are characterized by the employment of an exclusive conservation approach, limited effectiveness, conflict within local communities and conflict between various stakeholders (Jacobs and Schloeder, 2000). Some studies postulate that by 2050, many of the presently abundant types of wildlife species will begin to disappear as the number of people in contact with wildlife increases (Wale, et al., 2017).

2.8. Resettlement, Livelihoods and Subsistence Change

According to Brockington (2002), stated that throughout the world park-people conflicts have constantly centered on displacement. While many researchers have examined the effects of human activity on wildlife and conservation projects, notes that there has been relatively little research into the effects of conservation related displacement and resettlement on human livelihoods. Many of the people living within parks, whether historic inhabitants or recent migrants, have been already living at the margins of national society and thus are particularly vulnerable to economic and social disruption (Fischer,2002).

Conservation-related resettlement exercises, set within already unstable and dynamic contexts of economic and social change, have often exacerbated preexisting conditions of poverty and social disintegration (Brockington, 2002) and there are eight of the most significant impoverishment risks from involuntary resettlement: landlessness; joblessness; homelessness; marginalization; food insecurity; loss of access to common property resources; increased morbidity and mortality; and community disarticulation. Rural societies have developed livelihoods and subsistence strategies contingent upon access to local resources. As the goal of strictly protected areas is to limit or prevent human use of many of those natural resources central to rural livelihoods conservation-related relocation has often disrupted and transformed such livelihoods even when carried out in the most sensitive of ways Himmelfarb (2006) Cited in Cernea (1997).

Displacement of local people for conservation is one of the negative consequences of protected area widely documented in different literatures. Displacement is often taken to mean forced removal local communities from their land. According to Coad et.al (2008), noticed that conservation displacement comprises two processes. These are: removal of people from their homes by force and economic dislocation, the exclusion of people from particular areas in the way that harm their livelihood. They further declared that people living on the edge of a park unable to collect firewood or wild foods, to hunt, or fish, or unable to walk to their farms on the other side of the park, they can't live as they were before. Thus, exclusion of economic activity which does not lead to moving house still displaces that activity elsewhere.

2.9. Ownership of Natural resources in Protected Area

There are three alternatives for resource ownership for parks and protected areas: (1) a government agency; (2) a non-profit institution; or (3) a for-profit corporation. It is possible to conceive of a situation involving joint ownership, Government agencies can function at any level of administration, such as the national government, a provincial government, a regional government, or a municipal government. Non-profit institutions are public organizations which, by law, must operate in a non-profit manner. They are typically independent of governments. Typically, they are social, cultural, legal, and environmental advocacy groups with goals that are primarily non-commercial. Non- profit organizations typically gain most of their funding from private sources and are found in the arts, charities, education, politics, religion, research, and environmental protection. For-profit corporations are legally defined companies that can be owned: (1) widely by many individuals; (2) by other corporations; or (3) by private individuals. For-profit corporations are often heavily involved in the provision of tourism services in parks and protected areas that are owned by government. A few own and manage conservation lands outright, both for conservation and for a combination of conservation and income through the institution known as ecology (Paul and Eagles, 2008).

2.10. Importance of Protected Area

Protected areas have a multi- dimensional significance like ecological services (e.g. climate stabilization, carbon sequestration, provision of clean water, erosion control, nutrient cycling, etc.), to cultural services (spiritual, recreational) and tourism revenue (Argaw, 2008). Ex situ and in situ conservation strategies that use a combination of ex situ (e.g. gene banks) and in situ (e.g.

protected areas and on-farm conservation) techniques are best placed to safeguard the genetic diversity required to meet the needs of present and future generations. Protected areas can constitute reserves of valuable aquatic genetic resources for current and future food production, and fisheries management can be considered as a form of in situ conservation. Since the wild relatives of the vast majority of aquatic species used for food still exist, special care should be taken to ensure that these valuable genetic resources are not lost. Characterization of the aquatic genetic resources found in protected areas should be an essential step in designing and managing the areas (FAO, 2014).

Closely related to World Bank (2010) also pointed that natural ecosystems more generally, and protected areas specifically, supply numerous goods such as food, medicinal plants, building materials and services, such as soil stabilization and provision of clean water. Another related study showed that benefits of protected areas as being direct or indirect. The direct benefits include the use of natural resources for construction, food, medicine or fuel, whilst indirect benefits may be watershed protection and improved agricultural productivity. On local scales benefits include those derived from protected area management and infrastructure, such as financial gains from ecotourism and employment and through payments for environmental services. Other benefits comprise greater community participation in sustainable resource management and development schemes or Integrated Conservation and Development Projects (ICDP's), strengthened land tenure and protection from external threats, enhanced conservation of essential resources, and improved recognition of community conserved areas.

2.11. The Link between Culture and Protected Area

Tohmé (1992), in many pre-industrial and rural societies, the management of natural resources is instilled in their cultural values. Contrary to the Western practice of industrial domination over the environment and subordination of nature to meet the demands of over-consumptive livelihoods, many rural peoples demonstrate a high degree of harmony and respect for both the processes of nature and the human limitations within it. Environment and culture are bound together through socioeconomics, human surroundings, and cultural frameworks in a way that makes them vulnerable to the same enemies; such as poverty, illiteracy, disease, famine, alienation, the desire to dominate. The consequence of this connection is that most researchers have concentrated on socioeconomic development over cultural development, although damage

to both the environment and culture are irreversible (Tohmé 1992). However, the connection between culture and environment for many of the world's rural populations is clear, due to their direct reliance upon a healthy environment and land for subsistence living.

"A culture, once having achieved a symbiotic relationship with its natural environment, is resistant to change in itself." Winter et al. (1997) Cited from Nowicki, (1985). Protection of the environment allows cultural development in relation to that habitat to occur .Yet; many cultures do not need outsiders to inform them about the sustainable uses of their natural resources. Where they diverge from conservation ethics may be in the adoption of a Western emphasis on extraction and utilitarian uses of those resources. Once this is realized, and the economic side of resources is emotively valued less than future resource sustainability and cultural integrity, a society may find that its beliefs about the environment more closely resemble those of its traditional ancestors.

Natural resource management is expanding its focus as a result of the dynamic interchange between conservationists and local people residing in or near the world's protected wild lands. Whereas conservation efforts previously focused on the biological aspects of particular wild areas, today's conservation involves local, national, and international stakeholders in a broader, more socio-politically-changed context. This new agenda incorporate cultural and environmental protection and when the views of the local people are truly heard and accounted for in the world's protected wild lands, natural resource management will have reached its new paradigm (Winter et al., 1997).

2.12. Biodiversity Conservation

Protected area management plans not only address protection, but also incorporate sustainable use and involve local communities tend to be more successful in the long term. Co-management between government and communities can be a useful governance solution for protected areas, also offering an opportunity to incorporate the traditional knowledge of local people and their skills in monitoring and other management activities. Management tools such as hunting, fishing and gathering can be considered when appropriate. The traditional knowledge and perceptions of local people are important for managing and conserving plant and animal species in protected areas. Women in particular often have specialized knowledge of forests, trees and wildlife in

terms of species diversity, uses for various purposes, and conservation and sustainable management practices. Making better use of traditional knowledge and combining it with scientific knowledge has the potential to increase the role of protected areas in food security for local people. The measure of success of conservation is generally taken in the prevention of species extinction. Conservationists also seek to maintain genetic diversity within particular species, especially the protection of subspecies, as necessary to reduce the risk of species extinction (Benjamin, 1980).

Conservation policy includes efforts on three levels. The first targets individual species, often by limiting or preventing hunting and harvesting. The second focuses on the protection of the habitat in which the populations of endangered species live. The third manages entire assemblies of ecosystems. The first is oriented directly to the species; the second establishes protected areas as reserves; and the third enacts systems of reserves-managing or reducing gaps in sets of fragmented protected areas or treating protected areas as cores surrounded by buffers and linked through corridors. In ecological terms, the first is associated with population ecology, the second with ecosystem ecology, and the third with landscape ecology. A number of conservation policies, distinct from the establishment of protected areas, continue with this first phase, which includes zoos for captive breeding programs, prohibitions on international ivory trade, and limits on commercial whaling. Because of the expansion of protected ecosystems and landscapes into settled zones, conservationists have reconsidered resident and neighboring human groups, leading many to view them as potential participants in conservation rather than as poachers of wildlife or destroyers of habitat (Benjamin, 1980).

2.13. Management of Protected area in Anthropological Perspectives

Several distinctive features of anthropology make it particularly well-suited for studying protected areas: the commitment to long term field studies in the relatively isolated regions in which protected areas are established; and the willingness to study not only local populations but also reserve managers, international conservationists, biologists, government officials, and staff of nongovernmental organizations (NGOs). Moreover, environmentalism itself became an object of study for anthropologists interested in discourse, ideology, and postmodernism. In addition to conducting scholarly research, anthropologists have also engaged in the debates over protected areas in other ways: as advocates for indigenous rights organizations such as cultural survival, as

policy-makers in international institutions such as the World Bank and the World Wildlife Fund, as cultural intermediaries who arrange for the publication of interviews with local inhabitants of protected areas, and as expert witnesses in court cases in which indigenous land claims are adjudicated. In both academic and advocacy roles, anthropologists have argued strongly for the participation of local populations in the planning and management of protected areas. These arguments are sometimes based on social justice claim that often poor and marginal inhabitants of protected areas should not bear the costs of conservation or on human rights claims, in which local populations have entitlements as citizens of the states that administer the protected areas, as native or indigenous peoples with specific claims to sovereignty over their rights (Benjamin, 1980). Remis and Hardin (2008), also postulated, this generation of anthropologists is studying not 'primitives' but, rather, the sorts of tourists, experts, and managers who formulate and implementation of conservational policies. In deployment of available information to policy anthropology is uniquely positioned to contribute to three essential aspects of conservation:

a). Understanding the historical and contemporary influences on the changing animal– human relationship;

b). Understanding cultural impediments to conservation policy; and

c). Understanding impediments to conservation policy in international policy agendas.

2.14. Theoretical Framework

2.14.1. Malthus Theory

Early in the 19th century, the English scholar reverend Thomas Malthus published *An Essay on the Principle of Population* (1798), he argued that, the growth of human population always tends to outstrip the productive capabilities of land resources. In other words, population growth is exponentially, while resources only grow geometrically. Eventually, populations deplete their resources to such degree that competition for survival becomes inevitable. This assumes that a struggle for existence will ensue, and only a certain number of individuals will survive. Thus due to their direct bearing on natural resources conflict will be rise. Traditionally, Malthusian theory suggests that due to population growth, human consumption needs will eventually exceed the availability of natural resources (particularly food), causing a myriad of negative social outcomes

like war, disease, and famine. Therefore, when the equilibrium between food supply and size population is disrupted. The scarcity caused by increase population growth results in intense competition for the available natural resources which might results in conflicts. The connections that bind human and natural systems are innumerable, but arguably, one of the most discussed through human history has been the ever increasing size of the human population and its relationship with the natural resources upon which it depends.

Modern theories on the association between population growth and the environment date to 1798, with Thomas Malthus's statement that, "The power of population is indefinitely greater than the power in the earth to produce subsistence for man. Malthus envisioned an impending doomsday scenario where excessive human population growth would overtax a limited supply of natural resources (Negese, 2014 cited in Malthus, 1986). Thus, humans would outpace their local carrying capacity, the capacity of ecosystems or societies to support the local population.

Therefore, when we see this theory regarding to protected area majority of natural resources were found in protected area and when human population growth were increasing in the adjacent area of the park local community needed to access the resources over the protected are and leads to resources scarcity and it is expected to occur a conflict between the community and the park management since the restriction of natural resources over in protected area is applied.

2.14.2. Ecological Anthropology

Ecological anthropology is the study of the role of culture in humanity's interaction with ecosystems. Human populations have ongoing contact with and impact upon the land, climate, plant, and animal species in their vicinities and these elements of their environment have reciprocal impacts on humans (Salzman and Attwood, 1996). Ecological anthropology deals that humans shape the environment they live in while the shapes the culture of that population. While a population may not interact with the entire environment, there are certain aspects of the area that it will occupy as a habitat. For example, humans who were hunter-gatherers would differ from a population that took to farming as a form of life (Sutton and Anderson, 2010). The hunting–gathering would be nomadic, traveling in small groups, developing technologies for hunting, and forming temporary homes as they hunted animals and gathered plants that grew along the way. Also, these nomadic groups would have to be flexible to search for resources continually. A farming population would rely on a rural region; their land would be used for

cultivating crops and raising livestock. Those farmers would remain on land for extended periods of time before moving to develop a new area. These two populations would be influenced by the availability of resources in the ecosystem and would have to develop methods of survival based on their environment (Sutton and Anderson, 2010). Thus particular population in a particular area purposely or unintentionally shapes its environment, and the ways in which its relations with the environment shape its culture and its social, economic and political life.

Population has its own particular orientation, or adaptation, to the wider environment, institutionalized in the culture of the group, particularly in its technology, which includes established knowledge of plants and animals, weather and minerals, as well as tools and techniques of extracting food, clothing and shelter. Furthermore, a population's adaptation is often influenced by the socio-cultural environment constituted by other human populations, their cultures and adaptations (Spencer, 2002). Therefore, on this study, in chapter five we have seen about the *Godantu* pastoralists and those nomadic pastoralists were came from adjacent area of Abijata-Shalla Lakes National Park to search grazing land and gradually they became settled in and around the park area. Therefore, this theory is related to this and it indicates that those pastoralists adapted the new environment and culture of the area.

Recently ecological anthropology is consideration to the impact of environments on human societies is longstanding in philosophy and geography, and current awareness of global environmental problems is drawing ecological anthropology into multidisciplinary debates over 'sustainable development. The rapid destruction of tropical forests, grazing lands, coastal fisheries, etc., has stimulated interest in the 'tragedy of the commons', a model asserting that resources held in common ownership are inevitably overused and degraded by people pursuing their individual interests (Spencer, 2002).

2.14.3. Cultural Ecology Theory

Is also similar connotation to ecological anthropology which is part of theoretical division of the whole study of human ecology, broken in to two parts: human biological ecology (how people adapt through biological means) and human cultural ecology (how people adapt through cultural means) and it looked at the interaction between living things and their environment, cultural ecology involves human perceptions of the environment as well as sometimes un perceived impacts of us on the environment about environment and the environment on us and also cultural

ecology studies impacts of adaptation, how people deal with, affect and are affected by their changing environment (Spencer, 2002). That is vital to our survival on the planet because if offers understanding and possible solutions to important contemporary problems, like deforestation, loss of species, food scarcity and soil loss. Learning about how adaptation worked in the past can teach us today as we grapple with the effects of global warming (Spencer, 2002).

2.14.4. Fortress Conservation Models and Community- Based Conservation

In order to protect conservational biodiversity and wildlife habitat there are many models of conservation programs, majority of them can be placed in to two categories which is the fortress model of conservation and community-based conservation /rights based conservation programs. The following section is highlighted over these ideas.

Model - 1

2.14.4.1. Fortress Conservation Model

The idea of fortress conservation is planning and designing in the 20th century. And the model is based on the belief that biodiversity protection is best achieved by creating protected areas where ecosystems can function in isolation from human disturbance and it is about restricting access to nature in order that nature is protected. That can require force and is often unwelcome for the people who were accustomed to use those resources. Fortress, protectionist and conservation also assume that local people use natural resources in irrational and destructive ways (Brockington, 2002). Mostly, the fortress model can be characterized by three principles: local people dependent on the natural resource base are excluded; enforcement is implemented by park rangers patrolling the boundaries, using a “fines and fences” approach to ensure compliance; and only tourism, safari hunting, and scientific research are considered as appropriate uses within protected areas. Because local people are labeled as criminals, poachers, and squatters on lands they have occupied for decades or centuries, they tend to be antagonistic toward fortress-style conservation initiatives and less likely to support the conservation goals. But the exclusion of people is in order to save nature, regardless of its desirability or justification, raises serious problems of fairness and is generally neither feasible nor successful in the long term (Hanna, 2006). The model was proposed some elitist and becomes even a more serious problem to the livelihood of the poor rural people particularly in Third World Countries. And such restrictions

results resettlement of local people to other location; restriction of access to livelihood resources; break up of communal lands; collapse of local management systems and social structures; fines and imprisonment; and increased rural conflict and famine are among the impacts generated and cause biodiversity loss and environmental degradation (Neumann, 2005).

Generally, fortress model conservation programs often very effective at protecting wildlife and maintain biodiversity. Where they falter, however, is in their inability to meet the needs of people living in the areas covered by the program are often ignored. Indigenous people are forced off their land, and their traditional rights to resources use are lost. This is practically, problematic as the environmental concerns that lead to the creation of protected areas are often the result of actions from outside actors, not the people living within the protected area (Friedland, 2015).

The protectionist nature of fortress conservation with its philosophy of viewing nature conservation and human habitation as inherently incompatible prompted a heated debate about nature conservation. On this debate there are two groups, one group argue that, it should be done both in an abstract way (relation between humans and nature) and on a more practical level (how to deal with people living in and around protected areas) (Buscher and Whande, 2007).

On the contrary the other group suggests that, conservation should consider the immediate need of the local people and thus should contribute to poverty alleviation. This is because there is ethical and practical reason to consider in the creation and maintenance of protected areas (that usually involves the exclusion of local people (Cernea, 2006). This idea also supported by Rolston (1996) and he argued that there is ethical responsibility wherein saving nature. But the model has had limitations because of its ethnocentric orientation favoring Western ideas of nature; its elitist approach ignoring the land rights of the indigenous inhabitants; its neglect of the wider ecosystem approach in which human are also a part in influencing landscape; and its separation of people from protected areas which has resulted in ecological simplification and pressure on resources outside of the protected areas that finally impacts on the protected areas themselves (Fisher et al., 2005). Currently, the debate over protected areas is on the way protected areas were managed in the past versus the way they are being managed now. The rights of access to natural resources of local people and levels of exclusion (fortress approach) or inclusion (different levels of participation: collaborative, co-management or community-based

approach) are some of the tensions raised in the debates (Pimbert and Pretty, 1995). Consequently, the main focus of the 2003 World Parks Congress was to announce a 'new paradigm' which focused mainly on the benefits of those Parks to local people in alleviating poverty and the reengineering of the governance system of protected areas (Philips, 2003).

Model 2

2.14.4.2. Community Based Conservation (CBC)

When fortress conservation model failed community based conservation (CBC) was substitute and it dominates a conservational discourse. This argument identified that local people should be involved in the planning of protected areas and should get tangible economic benefits out of it thereby giving an economic stake for local communities in conservation. This has been the results of development thinking wherein participatory and bottom up approaches has been put forwarded. With that "the focus of conservation has consequently shifted from preservation to sustainable use, with income creation through controlled resource extraction, ecotourism, regulated trophy and subsistence hunting, and other activities integrated with conservation objectives playing a central role"(Hanna 2006). In other words, the model asserted that maintaining the rights of indigenous people rather than creating protected areas and excluding human activity, areas of conservation concern are managed as resources for historic resources users. That means local knowledge of conservation issues is valued and resources are managed in the way that indigenous people have always used them. The idea behind these conservation programs is that if local people continue to see value in the ecosystems around them, they will do their best to protect them and use resources in a sustainable manner (Friedland, 2015).

Furthermore, conservation can only be successful if the needs of the local populations are taken into account. Alternatives to fortress conservation come in many forms, including extractive reserves, joint forest management, community-based conservation management, and integrated conservation and development projects.

Community-based conservation models promote benefit sharing, which seeks to compensate local people for the resources they have given up by distributing income, employment, and other benefits from tourism. In other community-based conservation models, local people are contracted to manage part of their land for conservation goals, thereby ensuring that the financial

benefits of conservation do reach the community most affected by conservation (Doolittle, 2007). Consequently, the classical approach to biodiversity conservation was replaced by Integrated Conservation and Development Project (ICDP) with the objective of enhancing biodiversity conservation through active involvement of local communities.

Philips (2002) expands the difference between classical view and modern view of management of protected areas: classical paradigm were mainly establish for spectacular wildlife and scenic protection managed for the satisfaction of visitors and tourists whereas the modern paradigm has offered value for social and economic benefits and managed with local people with the aim of restoration and rehabilitation.

Therefore, for this study the researcher was use community-based conservation model; usually living communities in and around protected area historically whether they are resident of the area before the establishment of national park or new comers of other area and the point to here is that for the success of conservational approaches it must to reflect the rights of indigenous people and it required community participation for the protection of protected area.

CHAPTER THREE

3. DESCRIPTION OF THE STUDY AREA AND THE COMMUNITY

This chapter is describes the general setting in which the study area has been conducted. It helps to understand the general pictures of geographical location and the population of *Arsi* Oromo community, in terms of socio-cultural setting and economic activities and also give the general description of Abijata-Shalla Lakes National park.

3.1. The Geographical Setting and Population

The study area, *Arsi* one of the branches of the Oromo people inhabiting the *Oromia* Regional State, mainly, *Arsi Oromos* live in the South Eastern part of *Oromia* Regional State. In recent time, *Arsi* is divided into two administrative zones, specifically East *Arsi* and West *Arsi* zones. East *Arsi Zone* is further divided into 24 administrative districts (*Asella* being its capital town), while West *Arsi Zone* is divided into 12 administrative districts (*Shashemenne* being its capital town). *Arsi* also shares boundaries with East *Shewa Zone* in the North, *Sidama* and *Bale Zones* in the South, *Alaba Zone* in the West, Western *Hararge Zone* in the East and Bale zone is also inhabited by Arsii Oromo; part of East Shewa too (Dame, 2014).

Arsi Negelle woreda (recently called *Negelle Arsi*) found in west *Arsi Zone Oromia* Regional State located in the Central Rift Valley, *Negelle Arsi* is bordered on the south by *Shashamene* area, on the south west Lake Shalla which separates it from Shalla, on the West from the Southern Nation, Nationalities and Peoples Region, on the North by East *Shewa* which it shares the shores of Lakes Abijata and Langano and on the East by the *Arsi zone*. In this *woreda* there are eighteen *kebeles* and Abijata-Shalla Lakes National Park is located on this *woread*. According to the 2007 Population and Housing Survey Report (CSA, 2008), the total population of *Arsi* was 4,610,810; of which 2,635,515reside in East *Arsi Zone* and 1,975,295 reside in West *Arsi Zone*. The majority of the populations (4,028,758 out of 4,610,810, almost 87%) live in the rural areas (CSA, 2008). From West *Arsi Zone* the total population of *Negelle Arsi woreda* was 260,129, of whom 128,885 were men and 131,244 were women; 51,535 or 19.81% of its population were urban dwellers. And the household size in this district is 5- 9 persons (FDRE, 2007).With an estimated area of 1,400.16 square kilometers; *Negelle Arsi* has an estimated

population density of 141.6 people per square kilometer, which is less than the *Zone* average of 181.7.

3.2. Climate

The study area of *Negelle Arsi*, located between 7.15°-7.75°N and 38.35°-38.95°E. The annual temperature varies from 10-25°C with annual rainfall between 500-1000 mm. The altitude ranges from 1500-3000masl. Generally*Arsi* area has three major climatic conditions (Lowland < 1600m with semi-arid climate, Midland 1600-2200m with mild climate and Highland > 2200m with cold climate). The topography encompasses the Central Rift Valley floor and extended to its eastern escarpment and characterized by unreliable rainfall and extreme scarcity of water and vegetation. The lower lands, of the zone consist especially of thorn trees and scrub. Most of the western part of *Arsi* towards the Great Rift Valley is within this climatic condition Dame (2014) Cited from Gebreslassie (2014).

Abijata-Shalla Lakes National Park (ASLNP) is governed by Ethiopian Wildlife Conservation Authority and it located in the East *Shewa* and West *Arsi Zones* of *Oromia* Regional State. The park comprises three major neighborhoods: from *Negalle Arsi* (North East and South about 85%), Shalla (South West about 10%) and additionally, the park also encompass *Adami Tullu Jiddo Kombolcha woreda*, is located in Great Rift Valley and found around 116km from the capital city of eastern *Shawa Zone Adama*. Adami Tullu Jiddo Kombolcha *woreda* also divided into 47 *kebeles* and from these *Kebeles Desta Abijata* is the major adjacent *kebele* to the park (Jemila, 2014). Geographically, the park is located between 7022'4.8" to 7042'47.7"N and longitudes 38 022'32.8" to 38 040'36.4"E at an elevation ranging from 1540m to 2075masl (Fekadu and Rezenom, 2002). It comprises two types of ecosystems the aquatic and terrestrial ecosystems covering a surface area of 887 km^2 of which 405 km^2 is land area while 482 km^2 is aquatic. The Park encompass an area of 887 km^2, of which 505km^2 is water body (principally by the alkaline lakes, Abijata, Shalla, and Chitu and their shorelines, and 382 km^2 is land or terrestrial ecosystem, which comprise the acacia woodland, acacia bush land, scrubland and grassland vegetation and the rocky outcrops (Rezenom, 2002). The area is characterized semi-arid to sub-humid type of climate. The minimum and maximum annual temperature of the area is 13.5 and 26.6°C, respectively and the average mean annual temperature is 20.1°C with mean annual precipitation of 600 mm.

Major Natural Resources Attraction in Abijata-Shalla Lakes National Park

Abijata-Shalla Lakes National Park (ASLNP) was proposed as National Park in 1970 to protect spectacular and resident birds, their breeding islands, and distinguished scenery of the area. It is well-known and significant ornithological site in Ethiopia. Generally, the park was created to conserve biodiversity; maintain ecological processes; to generate economic benefit through tourism and promote scientific research and education (Rezenom, 2002). Wildlife species, vegetation type, landscape scenery, bird species; the three Lakes; hot spring and other natural resources attractions sites which are found in Abijata-Shalla Lakes National Park.

3.3. Wildlife Resources of the Park

3.3.1. Vegetation

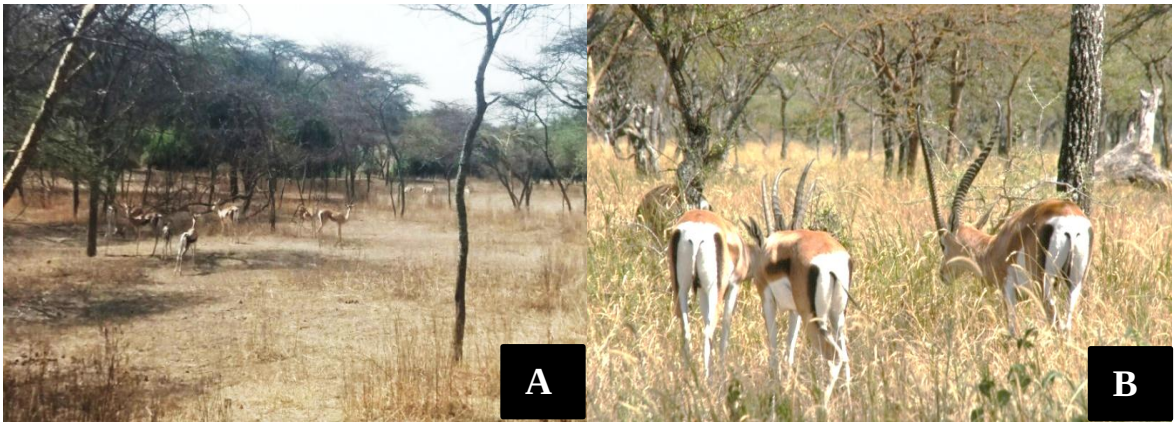
In Abijata-Shalla Lakes National Park and its surroundings there are drought resistant trees and shrubs categorized under Acacia-Commiphora (small-leaved) deciduous and ever green leaves woodland (Tafesshe, 2008). The most common known Acacia tree species are: Acacia tortilis, Acacia seyal, Acacia senegal, Acacia etibica, Acacia ethbaica, Grewia sp., Zizipusmacronata, Calpurnia subdecandara and Croton macrostachys were found commonly known tree species in the park. A. nilotica and A. brevispica are also present to some extent within the area. 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 scrubs on the rocky slopes. Balantiesaegpticus, Ficussycomorus and Mytenussenegalensis are found within the park. On the Lakeshores of Lake Abijata there are short grasslands covering of Cynodon and Sporobolus Spp. (EWNHS, 2009).

Source: Park files (ASLNP).

Picture 1. Some of Vegetation type in and around the Park Area

3.3.2. Wildlife /Mammals/

From the earlier studies we can see that there were 76 mammal species recorded in ASLNP, which shelters 27% of the total number of mammal species recorded in Ethiopia and 81% of the mammals recorded in the Rift Valley Lakes region and large number of mammals once found in park territory (Hillman, 1993). Currently, Greater Kudus (Tragelaphusstrepsiceros), Grant's Gazzele (Gazellagranti), Bohor Reedbuck (Reduncaredunca) and Warthogs (Phasochorasafricanus) are found in headquarter. Klipspring and Caracal can be seen around *Humo* viewpoint, white and black Colobus Monkey (Colobus Guereza) were found on the eastern forest edge of Lake Shalla and along the strip of *Dedeba* river line forest, Baboon on the eastern shore of Lake Abijata. Aardvarks (Orycteropusaferafer) are common during the moonlight, Hyenas (Crocutacrocuta), Black-backed Jackals (Canismesomelas), Leopard, Vervet Monkey, common Duiker Spotted Hyena, Bat-eared; Fox Bush Babies are well-known large mammal's species existing within the park territory (EWNHS, 2009). In addition, six endemic mammal species: Scott's Hairy Bat (myotisscotti), White-toothed shrew (crociduraphaeura), Mahomet'smouse (musmahomet),White-footed rat (Praomysalbipes), Ethiopian grass rat (arvicanthisabyssinicus), and Harrington's scrub rat (pelomysharringtoni) are found on the park (Rezenom and Fekadu, 2002).



Sources: A. By researcher and B. Park file (ASLNP).

Picture 2. Grants Gazelles in Head quarter

3.4. Bird Species

Abijata-Shalla Lakes National Park is distinctive National Park from other National Park of Ethiopia due to the existence of several wetlands birds 'species and destination of migratory and residential of birds. Generally, in the park, there are more than 460bird species (52.4 %) of the total bird species of the country. Its significance to migratory wetland birds from Palearctic during the northern winter months. It serves as a stopover for a high population of birds including; Shoveler, Black- Winged Stilt Avocet, Little Stint, Ruff and White –winged Black Tern (EWNHS, 2009), including 1- endemic; 6-Near- endemic; and 8- endangered species. The most notable have been the great white Pelicans Pelecanusonocrotalus, storks including abdim's stork ciconiaAbdimii, both species of flamingos (Phoenicopteridae), Ergrets and herons (Ardeidae), Cormorants (Phalacrocoracidae) and Plovers (Charadridae).

No	Attributes	Common Name	Scientific Name	Global status
1	Bird species endemic in Ethiopian or Ethiopia/ Eritrea	Yellow-fronted Parrot	Pocicphalusflavifrns	Endemic
		Wattled Ibis	Bostrychiacarunculata	Near-endemic
		Black-winged Love Bird	Agapornistaranta	
		Banded Barbet	Lybiusundatus	
		White-winged Cliff Chat	Mytmecocichalasemirufas	
		Abyssinian Black-headed Oriole	Onychognathusalbirosris	
		Thick-billed Raven	Corvuscrassirosris	
2.	Additional globally threatened and vulnerable bird species resident to or migrant through ASLNP	Lesser Flamingo	Phoeniconaios minor	Near Threatened
		Pallied Harrier	Circus macrourus	
		Basra Reed Warbler	Acrocephalusgriseldis	
		Black-winged Pranticole	Glareolenordmanni	
		Imperial Eagle	Aquila heliacal	Vulnerable
		Lesser Kestrel	Faconaumanni	
		Wattled Crane Wattled Crane	Gruscarunculatus	
3.	congregations, i.e., 1% or more of global population (highest estimate measured 1991-1996)	Ferruginous Duck	Aythyanyroca	
		Black- necked Grebea	Podicepsnigricollis	Vulnerable
		Greater flamingo	Phoenicopterusroseus	
		Lesser Flamingo	Phoenicopterus minor	
		Northern Shovelera	Anasclypeata	
		Black – winged stilta	Himantopus	
		Pied Avoceta	Recurvirostraavosetta	
		Little Stinta	Calidrisminuta	
		Kittlitz'ssandplovera	Charadriuspecuarius	

Ruffa	Philomachuspugnax
Gull- billed terna	Sterna nilotica
White winged black terna	Chlidoniasleucopterus

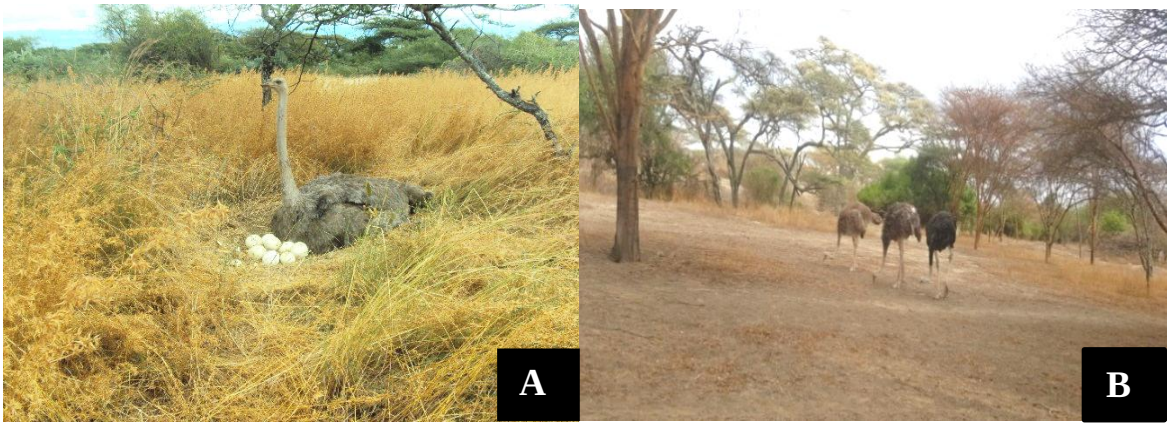
Table 1. Common Bird species in Abijata Shalla Lakes National Park (Sources: Flower, 2011).

Source: Park files (ASLNP).

Picture 3. Some Birds of Species around the Park Area

3.4.1. Ostrich's

In 1984 ostrich farm was established by Ethiopian Wildlife Conservation Organization. During that time the park management takes along the ostriches from other park and various sources in Ethiopia and enclosed at ASLNP headquarter in 1986 and the Ostriches number was 89 adult Birds. There are two subspecies: Common and Somali Ostrich (Struthio Cameluscamelus and S.c. molybdophanes, respectively), and the two subspecies appear to be interbreeding. Currently, there are 25 adult Ostriches living in the enclosure area of the park.



Sources: A. park files (ASLNP). And B. by Researcher

Picture 4. A. Female Ostrich with Eggs and B. Female and male Ostrich in Headquarter

3.5. Physical /Geological features

3.5.1. Mount Fike

It is 24 km far away from headquarter and highest peak mountain in the park with higher altitude of 2075masl. It is located between the two lakes (Lake Abijata and Lake Shalla). From the peak of this mountain the three Lakes: Abijata, Shalla (inside the park) and Langano (outside the park) can be watched. Mammals such as: Greater Kudus (*Tragelaphusstrepsiceros*), Olive Baboons (*Papioanubis*) and Klipspringers (*Oreotragusoreotragus*) are some of the fauna found in *Fike* Mountain.

Source: park files (ASLNP).

Picture 5. Grater Kudu in Mount *Fike*

3.6. The Lakes

Generally, Abijata-Shalla Lakes National park is well-known by aquatic body and it covers 482 km^2. The lakes are rich in avian biodiversity and the most attraction sites over the park. The two Lakes: Abijata and Shalla is the only national park in the Central Rift Valley, which has been recommended by the Ethiopian government as Ramsar sites (EWNHS, 2009).

3.6.1. Lake Abijata

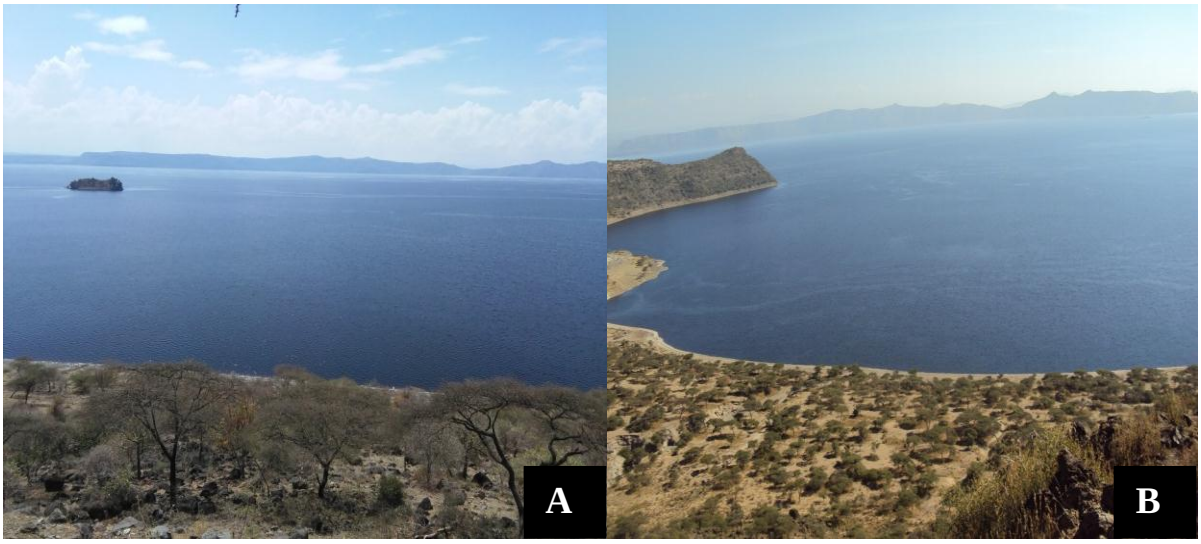
Lake Abijata is slightly shallow and less alkaline. It is located at 7o32'-7o39' N and 38 o32'- 38 o38' E at an altitude of about 1,600 meter above sea level, and covers an area of 176 km^2 and maximum depth of 14 m. With a high evaporation rate, it is subject to wide variations in surface area and depth relative to its size (Flower, 2011). *Gogessa, Bulbula* and *Hora Kello* are the major tributaries of Lake Abijata, Its gets inflow from Lake *Ziway* through *Bulbula* and *Hora Kelo River*. Additionally, during heavy rain the *Jido* River can overflow into *Gogessa* River and so it also contributes additional water to Lake Abijata. Greater flamingos (*Phoenicogterusruber*) and lesser flamingos (*Phoenicogterus minor*) were found dispersal in Lake and along the edges of the Lake surface and they consume sea plants, of algae. Furthermore, it is a major feeding site for aquatic and terrestrial bird species including the migratory birds. Previously the Lake has abundant fish (tilapia) population, and the alkalify of Lake encourages the production of phytoplankton, zooplankton and fish. However due to human- induced and other environmental factors the fish population were vanished and it difficult to recover.

Source: Park files (ASLNP).

Picture 6. Lake Abijata with Lesser and grater Flamingos

3.6.2. Lake Shalla

Lake Shalla is one of the deepest and the largest Caldera Lake in Africa with an area of 329km^2 and 266m depth. Some studies showed that it was made by Pleistocene volcanic rocks and its origin is probably due to intense faulting, although at least part of the basin may have been molded by an explosive event. Lake Shalla has unique features with blue-black color and it makes different from the rest of the Rift-Valley Lakes and it called lake of "scenic beauty". There are eight islands on the lake and the Islands are ecologically and culturally significant. Sacred Island, Pelican Island, Abdim Island, Cormorant Island, Edo Island, Flat Island, Little Island and Rock Island are the best protected place for the breeding of different birds (Tefera and Almaw, 2002). Four of them (Cormorant Island, Abdims Island, Pelican Island and Sacred Island) are world famous breeding sites for Great White Pelican (Daniel Worku, 2003). Water inputs to Lake Shalla are dominated by groundwater inflow, the *Jido* River, the *Awade* and hot springs. Water output is limited to groundwater outflow. Because of its high salinity and alkalinity and relatively low productivity, little use is made of its water and natural resources (Flower, 2011).



Sources: Park files (ASLNP).

Picture 7. A. Caldera Island in Lake Shalla and B. Lake Shalla

3.6.3. Lake Chitu

Lake Chitu is found in the Shalla *woreda* and it looks like pea-green water in a cup-sided surface area of 0.8 km^2, with 21m depth immediately southwest of Lake Shalla. It is a Crater Lake located at 1.5 km south of Lake Shalla and 82 km far from the head quarter. It is the only known crater formed by an explosion in the center of the Rift Valley floor. The lake is rich with phytoplankton content, which makes it attractive to flamingos, (Flower 2012, Cited in Stephenson 1978). It known for Lesser Flamingo population and more than, 10,000 Flamingos can be seen at once. The hot springs which is found on the edge of the small lake greenish color of the lake is due to dominance of blue green algae (Spirulina) (Flower, 2012).

Source: Park files (ASLNP).

Picture 8. Lake Chitu with Lesser flamingos

3.6.4.Hot spring

This natural spring attraction site is found 10 km away from headquarter in the eastern shore of Lake Shalla direction and along the shore of Lake Chitu and also found in other part of the park. The spring is very hot with the boiling point of 97°C. Volcanic activity causes hot steam, mud and perennial hot springs which directly flow into Lake Shalla from a distance of 200-300m. Spiritually and culturally this place is used for therapeutic purposes and the local communities from adjacent areas come here during summer season to healing related of spinal cord disorder and other health problems. Additionally, it also serves cooking of some fast food: eggs, potato and maize.

Sources: A. Park files (ASLNP)(and B. by Aziz Ahemed

Picture 9. A. Tourists in Hot spring and B. Local Youth hold Traditional Spear

3.6.5.Other Natural Attraction Site

Pelican Shore

This natural site is found in Lake Shalla shore and is well-known place of pelican shore. In this area it possible to see flocks of pelican feeding and flying with fascinating styles on the lake. Currently, Pelicans are mainly seen at the gateway of *Dedeba* River and Pelican island of Lake Shalla.

Sources; Park file

Picture 10. White Pelican on Pelican shore of Lake Shalla

Viewpoints

Viewpoints are the place where found 5km from the head quarter and the area can be viewed as the *Humo*, Shalla and *Gike* viewpoints.

Sunsets

This natural attraction site is found in both Lakes of Shalla and Abijata. When Shalla Sunset from the *Humo*hill where set over (slide set) directly over Lake Shalla with stratified horizon, and Lake Abijata Sunset from its viewpoint while the extremely colored sunset is reflected on Lake Abijata providing incredibly attractive place for tourists.

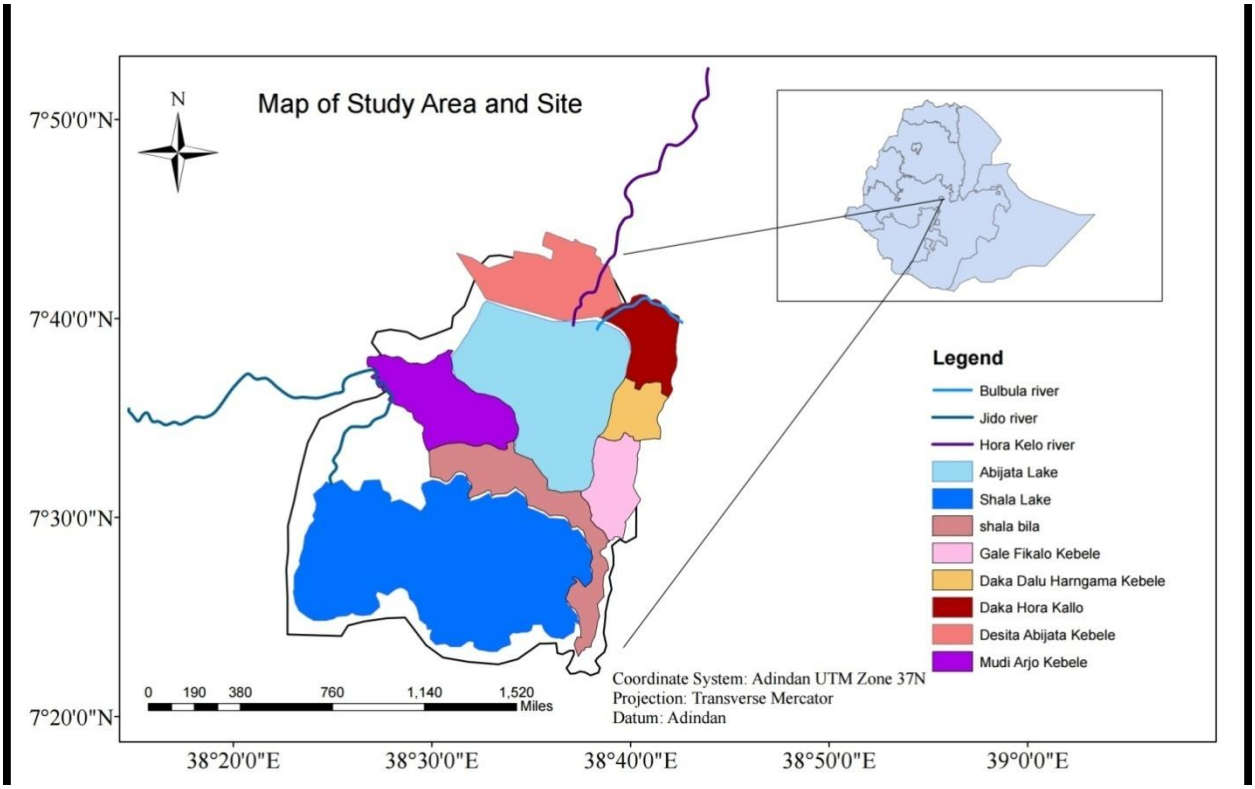
Sources by Tekleberhan Kidane

Picture 11. A. Sunset in Lake Abijata and B. Sunset in Lake Shalla

Year	Students	Ethiopian	Foreign residents	Foreign tourists	Total visitors	Income (Birr)
1996	-	2,688	775	2,145	**5,608**	**147,09**
1997	-	2,917	872	2,913	**6,702**	**250,000**
1998	1656	2,194	860	3,010	**7,720**	**193,882**
1999	871	3,668	1,052	3,571	**9,162**	**269,709**
2000	-	4,599	1,383	4,257	**10,249**	**246,877**

2001	467	4,561	996	3,916	**9,940**	**251,797**
2002	1239	2639	1007	3,726	**8,611**	**359,755**
2003	1447	2485	908	5232	**10072**	**605,755**
2004	2495	3322	854	5251	**11922**	**614,360**
2005	2171	3390	825	4742	**11128**	**583,330**
2006	3825	3769	1295	6045	**14954**	**736,410**
2007	1967	3892	1371	5162	**12,392**	**638,750**
2008	3187	7534	1307	4849	**13,690**	**637,085**
2009	2627	3133	1090	2458	**9,308**	**365,710**
2010	3360	4763	1121	3621	**12865**	**533140**
2011	2852	3945	1051	5828	**13676**	**706930**

Table 2. Tourist Data Flow and Income from 1996 –2011 E.C (Sources: Park file).



Sources: park file(ASLNP) and Hirut Bedilu

Map 1. Location Map of the Study Area

3.3. The People of *Arsi* Oromo

In terms of social structure, the traditional social organization of *Arsi* Oromo was dominated by the *Gadda* system. The moiety-clan-lineage-extended; family-nuclear family structures (Jeylan, 2005). Generally the *Arsi Oromo* have developed a concept of *Arsooma* which roughly translates to *Arsihood*. The *Arsi* have a complex concept of clan division. The two main branches are *Mandoo* and *Sikko*. *Mandoo* refers to the *Arsis* in the *Arsi* and northern *Bale Zones*, while *Sikko* refers to those mainly in the *Bale Zone*. This type of dual organization is referred to as a system of moieties (Asmarom, 1973). In the area there are four largest ethnic groups reported in *Negelle Arsi* were the Oromo (85.92%), the *Amhara* (7.69%), the (2.73%), *Kambataa* and the *SoddoGurage* (1.08%); all other ethnic groups made up 2.58% of the population. *Oromiffa* was spoken as a first language by 83.65%, 11.89% spoken Amharic and 2.44% spoken*Kambaata;* the remaining 2.02% spoken all other primary languages reported.

3.4. Descent and Kinship Structure

In addition to blood kin structure, the *Arsi Oromo* have two ways of adoption practice and this practiced is made by incorporated into one's descent group – through adoption (*gudiffachaa*) adopting a child by foster parent that enables childless couples to have children, and *moggaasa*- adopting an alien adult or stranger into a clan or a tribe through a ritual ceremony of *'harma hodhaa'* (to suck abreast) that played an important part in the history of *Arsi Oromo* to establish relations with outsiders. In terms of traditional cultural values in *Arsi Oromo safuu* is known by them and they believed that to exercise powerful influences on how every member of the group should behave. Oral tradition is also important in the area, which is closely intertwined with the local identity, culture and history of the people (Jeylan, 2005). The descent and kinship structure have the following distinction from the lowest to the higher level.

Manna

According to Hirut (2012) Cited from Gemetchu (1994), the first and lowest kin group organization is *manna*, which literally means house. It contains *Dhirsa, niiti- fi ijoolee* (husband, wife and children): this level of kin organization is similar to the nuclear family. The *Arsi* societies known by practice of polygamous marriage and in this form of kin group organization husband were control the whole activities. In case of many wife's, the first wife is called as *Niiti hangafa* and others are second, third or fourth wives, in order of their marriage to the man. *Arsi* usually call the younger wife *Maandha*. The elder son is called *hangafa* and those younger wives to him are also *Maandha*

Warra

This form of group organization is consists of two or more *mana*. It refers to the father's household, together with his married son's households and it resembles the extended family organization or minimal lineage. *Warra* refers to affinal relations to a main rather than cohabitation. Members of *warra*, though widely dispersed geographically, are still considered as members of a family unit (Hirut, 2012).

Anaa/Ardaa

Several *warra* organized together form *Anaa/Ardaa*- several households at different places- which include many of the closely related kin groups. Such kin groups comprise *akaakayyuu* (father's father), *akko* (father's mother), *abba* (father), *hadhaa/hadhoti* (mother/mothers), in case of plural marriage, *ilmoolee dhiiraa* (Married and unmarred sons), *dubaroolee hinheerumiin* (unmarried daughters, *wasiila/ abbeera/wasiiloota* (father brother or brother- uncle /s from the father's side). *Ardaa* is more inclusive in terms of lineage, whereas *warra* and *ardaa* is proximity; some members could live in a distant place and still be consulted in case of problems, conflicts and rituals such as weddings, funerals or initiations. It refers to a coherent settlement grouping of *warra* found in the *arsi* lineage system (it can be the whole villages/of genetically related group) (Hirut, 2012).

Balballa

Several *ardaa* in turn form *balballa*, which literally means door. In the Oromo society, the saying *balballa ebelu* is used to mean ''so and son's descent groups". The particular person can be alive or dead but he is used as a reference for the given descent or family group, which can be minor lineage. According to Huntingford described: ''the basis of Oromo society is the group called *warra* 'family' or *hidda* ''root'' which encompasses parental kin, distinguished as those of *abbeera /adara* or father's brother and maternal kin, distinguished as those of the *eesuma* or mother's brother. Other affine, are called *fira*'' relative'' for *arsi boro* and the affinal group *firumma"*Gemetchu (1993) cited from Huntingford (1955). The difference between *warra* and *balballa* is one of degree. *Balballa* is inclusive in terms of lineage; where as *warra* refers to particular families in the same lineage group.

Gossa

The group of *balballa* forms *gossa* (clan), which is the highest level of kin group organization among *Arsi* Oromo communities. This form of group organization of conceptual categories are social constructs based on the general frame of blood relationships and that they are only relevant at the lowest level of conception, tending to become progressively more fluid at the higher levels of structure. It has own significance among the *Arsi* Oromo in day to day of societal manners like *fudhafi heeruma* (marriage), *gadda* (mourning) ceremonies and initiation rituals of

its members and also it important for the protection of problem that comes from outsiders of the clan members. For example, if a particular of*gossa* kills a member of another gossa, the offender's gossa plays all the necessary compensations *Gumaa* (blood price) to the casualty's *warra* and *gossa*. Therefore this shows that gossa has an important role to handling the members and it requires respecting the rules of gossa and abiding by its norm, taking part in all activities that need the participation of members (Hirut 2012).

3.5. Religion

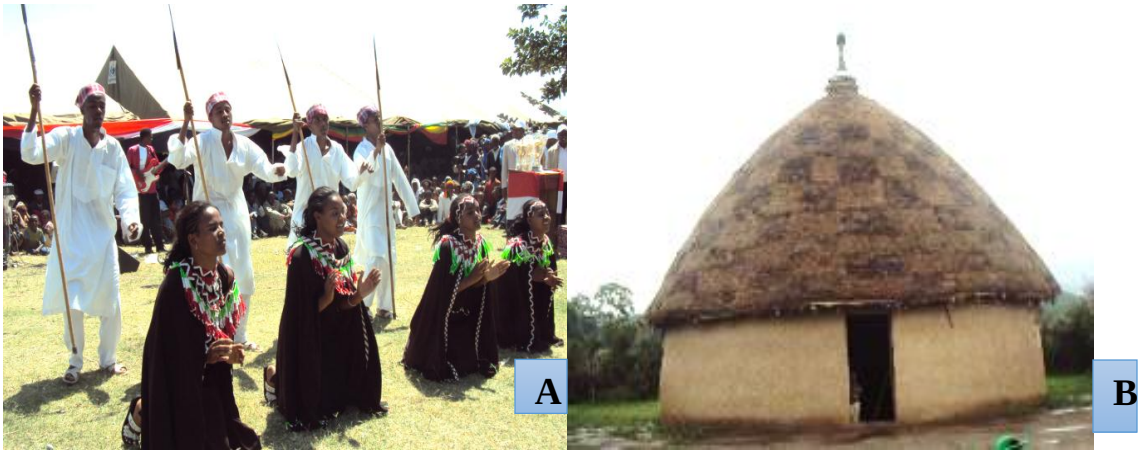
Before the expansion of Islam and Christianity in the 19th century, the Oromo had their own indigenous religion, called *Waaqeffannaa* with the worship of *Waaqa*, or the belief supreme Godthe sky God, at its Centre (Jeylan 2004), *Waaqeffannaa*is closely related to *Gadda* and neither Christianity nor Islam it is an indigenous religion and similar to the God of the Christians and Allah of the Muslims. The Oromo society's belief in one supernatural power is therefore a common denominator for the Oromo and other peoples which could be an important asset for democratization, harmony, understanding and better integration among the population of the Oromo (Tessema, 2012).The*Arsi* Oromo have the same basic religious world view like other Oromo groups. However, gradually, indigenous religious believe systems changed because of internal and external factor. Currently, majority of *Arsi* Oromo followers of Islamic religion with 70.94%, while 22.29% of were Ethiopian Orthodox Christianity, and 5.34% were protestant and some of them are still followers of indigenous religion belief system.

3.6. Cultural practice

3.6.1. *Siinqee*: Women's Customary Institution

In *Arsi Oromo* socio-cultural activities *Siinqee* is practice by legally married women's**.** *Siinqee* is a special stick *(Ulee*) symbolizing a socially sanctioned set of rights exercised by women. If a woman has a *Siinqee* she has to be respected, and give value and applicable to women who have been married in accordance with the *Gadaa* system. If the marriage is concluded outside the rules and regulations of *Siinqee*, like in the cases of marriage by force (*butta*), the woman does not enjoy the protection accorded by *Siinqee*. On the other hand, if a woman is married based on *Siinqee*, like in the case of *kadhacha* (marriage based on agreement between two families), she has full rights to enjoy her privileges under *Siinqee*. And it is not merely a term for a material symbol, it also refers to an institution, namely to a women's organization that excludes men, and

that has both religious and political functions. The *Siinqee* institution was given to women by *Gadaa* laws and it was highly respected by the society. Women used to use their *Siinqee* in various religious, social, political and economic contexts, to protect their property rights; to assert control over sexuality and fertility; to protect their social rights and to maintain religious and moral authority. It has various symbolic representations: as a symbol of marriage of Oromo women; a ritual stick used for praying and it used during cattle raid; a symbol of power of Oromo women and also for institution of conflict resolution mechanism (Jemila, 2014).



Sources: A by Desta Bedasso and B. Park files (ASLNP).

Picture 12. A. Traditional *Arsi* Dancing and B. Traditional Homestead

3.6.2. Burial Practices

From *Batuu (Zeway*) straight side of the road up to *Shashemene* there were simple tombs with slabs with geometric carving on important graves those tombs are sometimes undecorated square rock structures topped by crests of cattle horns, real or symbolic, less often a three –part device, sometimes with ornamental carving. It elaborately carved upright slabs depicting the deceased in high relief, sometimes relatives, usually animals and other symbols but without painting and without inscriptions. A wide variety of square tombs were plastered and sometimes painted and in recent times faced usually with inscriptions. Large monumental tombs consisting of a cube base carrying a large slab usually painted in bright colors. The deceased is usually shown on one side, often mounted, while the other side often carries cattle or other animals in low relief, richly painted. Such tombs may carry inscriptions on many surfaces. While most painted tombs showed

men as farmers or warriors, in recent times artists have painted men, women and children engage in many kinds of activity and often sometimes with evidence of profession (Paul,2005).

Sources: Researcher

Picture 13. Burial Practices around the park area

3.7. Economic Activities

Based on the climatic condition the *Arsi* Oromo people produce different means of economic subsistence. The lowland is dominated by agro-pastoral system; the potato-vegetable cultivation in lowland and midland; the maize-haricot bean in most of the midland and in some lowland; and barley-wheat cultivation in most of the highland and in some midland (MOA, 2015).

The people inhabited on the highland climatic condition, basically, produce barley and wheat and other cereals. Additionally they keep cattle, sheep and horses. In the temperate middle zone or midland climate zone cultivation and cattle breeding are were the most dominant economic activities. About 80% of the population lives in the lower half of the highlands and the lowest point of this climatically temperate middle zone. This is the most fertile zone and cereal cultivation and other forms of agriculture is the predominate activities. People in this area do cultivate *Worqii* (Ensete), and also keep animals such as cattle, sheep and horses.

Basically, the *Arsi* have an agro-pastoral economy, in which the precarious pastoral economy is supplemented by seasonal cultivation activities and animal husbandry still plays an enormous role. Livestock centered agro-pastoralism is the center of many rural households around the rift valley floor even though it is losing its importance to subsistence agriculture (Bedru, 2006).

Specifically, in *Negelle Arsi woreda* mainly the living communities were based on agro-pastoral economic system which is mixed farming. Both land farming and animal husbandry the day to day agricultural activity of the residents of the area. Crop production and livestock rearing are the main source of livelihoods. Maize is a staple crop in the study area. Sorghum, Wheat, Barley and *Teff* are the second major category food crops produced in the area. Legumes such as haricot beans are grown as cash crops.

3.8. Marriage Practices

Exogamy marriage in *Arsi* Oromo is widely practice. Each *gossa* member must marry outside his/her own *gossa* to form a strong affine relationship with another *gossa*. *Buttaa* (abduction), *wal-hawwatu* (shared love marriage), *Adda Baanee/Aseennaa* (marriage forced/imposed by a female fall in love), *Bimbetoo* (substituted marriage), *Gabbara* (bride wealth marriage), *Walgara* (exchange marriage), *Dubartii Takkaa ol Fuudhuu* (polygamous marriage), and *Dhaala* (widow inheritance) were the major types of marriage practice which is commonly found in *Arsi* Oromo community (Jemila, 2014).

CHAPTER FOUR

4. DATA ANALYSIS AND INTERPRETATION

MAJOR NATURAL RESOURCES USE CONFLICT IN THE PARK

This chapter deals with the major natural resources use conflict in and around the park area. Primarily, the data was collect from key informants, focus group discussants and observation. Mineral extraction, human-wildlife conflict, water abstraction, livestock grazing, deforestation, fuel wood collection, agricultural expansion, and poaching are major natural resources use of conflict in the park. Therefore, these are the most complex conservational issue in Abijata-Shalla Lakes National Park and lead to tension between park management and local communities of the area.

4.1. Mineral Extraction

4.1.1. Sand Extraction

Conflicts over the conservation of natural resources at the community level occur in different forms (Raihan et.al, 2017). Based on the resources availabilities in the protected area, most of the time residents needed to access the resources from the area. In Abijata-Shalla Lakes National Park (ASLNP), sand extraction is commonly practiced by the local community. The national park and its surrounding is endowed with naturally existing high-quality sand. This sand with its unique features is the most preferable resource by users. Specially, Kebeles; *Desta Abijata, Gale Fikello, Mudi Arjio* and *Algae Dilibatto* are places in which the sand is found. The shores of Lake *Shalla,* which is adjacent to Hot spring and also in Lake *Abijata* shore, there are sand extraction practices by the local community. Large trucks enter these places to extract the sand and the local youths have acted as a broker and day laborer's to sell the sand for private truck owners in other parts of the country. In the protected area principle, the consumptive use of natural resources from the park land is not allowed for local communities who are living in and near the park. However, illegally communities were extracting the sand to earn income. Thus, conflict is happing between local communities and park management. One informant outlined the reasons why they use this natural resource from the national park:

> *We have no jobs and access to do other work. So we depend on the park resources to fulfill our basic needs. But the park management does not support the local youths, if they were*

supporting us by other means of income, we will stop such activities. For example, other organizations were establishing youth's association to help the local community. But park management has no potential to do so. We always think that the park is our hindrance, because 10 years ago, one investor asked to invest the land but the park management was not interested to give the land for the investor. What does it mean? The land is ours; if they have done this during that time, I think we have changed our life (IV-2).

From the above discussion we understand that due to economic barriers and lack of additional prospects to survive in the area, local communities are dependent on the park's natural resources. On the other hand, even if, they have known the principle of prohibited activities in the protected they have demanded to access the park resources.

To maintain such kind of illegal activities over the park, the park management designed awareness creation program and patrolling of the area. Usually, the sand extractors were arrested and pay money as punishment. However, the law enforcement is the most challenging practice and because of this one ranger sacrificed his life and some of them were wounded. To empower the local communities of the area the Oromia Regional State, Park management and Ethiopian Wildlife Conservation Authority allowed for local youth to use the sand in some selected *kebele*; *Mudi Arjio* and *Algae Dilibtto*. However, the living community of other *kebeles* were discarded this activities because they believe that this opportunity is not helping the whole local youths; solely some local brokers and enhanced youths are the benefited ones.

On the other hand, corruption among some Park staff, *woreda* administration leader and *kebele* leaders was the major problem to control the sand extraction practice and one key informant (*Abba Gadda)* described the situation as follows:

From my thought, some park workers, worada administration and *kebele* leaders *were not doing their responsibilities and they do corruption. For example, when there is a patrol around the area; some of the park workers give the park information for sand extractors to leave the area and to stay until the condition is right for the extraction of the sand (KIIAG-3).*

For the conservation approach sand extraction by the residents gradually has its own effect over the park's natural resources and wildlife habitats. To strengthen, this notion, one related study

also indicated that the practice of sand extraction affects the structure of the soil system favoring soil erosion to take place either through wind or rainfall; when large trucks use different route to get into the exploitation area and this will affect the regeneration ability of the woodland and it disrupts the root systems of many trees in the area and due to distraction it decreases tourism development (Feyera and Fekadu, 2000).

Source: Park files (ASLNP).

Picture 14. Practice of Sand Extraction in the Park Land

4.1.2. Salty Soil / *Boje*/ exploitation

In addition to sand extraction, salty soil locally called *Boje*-brownish dry salty substance is also found on the eastern side of Lake *Abijata*. It is another form of natural resources use conflict in the park. This salty soil is used for animal feeding. Particularly, women and children extract this mineral salt from the shore of Lake *Abijata* and they collect by sacks and carry to highway that crosses *Daka Dallo Harangama kebele* to sell it to the users along the roadside. In the FGD-1 discussion, the participants stated that the motive behind using this mineral salt from the park is due to lack of sufficient means of income, especially; women cannot search for job in other places as men. So they exploited this salt to feed and educate their children. Additionally, they also stated that the area is semi-arid and the rain is fluctuating every year and the previously fertile area with full of forest is now deteriorated. On the other hand, false promises by the park

management and some other stakeholders to establish other alternative income makes the local community to loose fate as they never fulfilled any of the promises so far.

From the discussion of FGD-1 one recognized that salt exploitation is occurring in park territory for the survival. However, the park management does not support this activity and it believed that such activity is contradicted to the aim of conservation objectives and the water amount of Lake Abijata is also decreasing. Therefore, conflict is appearing between park management and local community. But some of the FGD-1 participants don't accept the influence of park management to stop the practice and they articulated that for the reduction and degradation of the Lake Abijata, they are not excused; their consumption has insignificant impact for the decline of Lake Abijata rather the Soda-Ash Share Company uses millions of metric cubic water from the Lake to make different materials, so they believed that the park management should not blame their activity.

Generally, from the FGD-1 participants it's understood that the Soda Ash factory is the main cause for the decline of Lake Abijata and park management refrain to impose the activities of the factory. Therefore, from the above discourse, we have understood that local communities were not economically secured and they extracted the salt from the park area as an income source.

4.2. Natural Resources Use Conflict due to Industrial Activities in the park

4.2.1. Water Abstraction

The Abijata Soda Ash Share Company was initiated by the Government of Ethiopia in 1984 as a trial project. It began full production in 1990 by a dual venture between the state run Ministry of Mines and Energy (with a 38 % share) and the National Mining Corporation, private investment company under MIDROC Ethiopia 62% share; to produce Trona (Na3H (CO3)2.2H2O) (mine monohydrate calcium carbonate) (Betelhm,2014). The company started operations in 1990 near the shores of Lake *Abijata* inside the park boundaries. Since its establishment, the share company has flourished on the existence of Lake Abijata, in commercial production of Soda Ash/Trona (Na3H (CO3)2.2H2O). Lake Abijata, and to a lesser extent Lake Shalla, are Rift Valley Lakes known for high content of soda ash (NaCo3) (Flower, 2011). The company production includes concentration ponds, transporting pumps, processing plant and administrative units. The

production of soda as carried out through solar evaporation and crystallization of water from abstracted from Lake *Abijata* which is stored on artificial concentration ponds for local and foreign markets (Flower, 2011).

At present, Abijata-Shalla Soda Ash Share Mining Company has developed 24 ponds of 240 and 210 m^3sizes in the alluvial sediment. The crystallized Trona is collected manually from the production ponds and piled on the dyke heads (boundaries of the pond) and transported to the washing area where it is washed with fresh groundwater to remove impurities like sediment (Berihu and Konka, 2009). The company estimated reserve of soda ash in both Abijata and Shalla Lakes is about-380 million tons. The company was planned to produce about 20,000 tons of soda ash per year in phase one and increase to 1 million tons per year of 97 % grade in phase two (Tahal consultancy of engineers ltd,1987). However, at present the company is producing less than 5000 tons per year with < 90% grade of sodium carbonate because of poor quality mining and becoming of decreasing the Lake volume. Here the point is that when the water extract from the Lake into the ponds, it doesn't return to the Lake, so the shore of Lake Abijata has retreated for a long years (Fithail, 2016). The lake cannot sustain the increased water demand needed for the expanded soda ash production. However, Flower (2014) notes that the Soda Ash Company abstracts approximately 2Mm^3/ year of water directly from Lake and on her study this showed that the company production is relatively less significant compared to the reduction in volume of river Bulbula (on average 200Mm^3/y to 50Mm^3/y), which is the main feeder of lake Abijata, due to upstream irrigation and industrial activities in Zeway. But there were studies conducted on environmental impact assessment (EIA) of the general activities of the factory and according to the study of (Burnod, 2007) the company, had its own impact over the Lake counting change in water salinity, depletion of Lake levels, including loss of habitat for pelicans and fish, airborne emissions of fluorine (potentially serious human health hazard) and lack of health and safety management for employee. Similarly, one informant described this in the following way.

> *Formerly, when I was a child, I looked after cattle around the shore of Lake Abijata. During that time there was a lot of fish; our elder brothers and friends picked those fish from the Lake and we eat with them. But as you observe it; today those fish were not found; because the soda ash company use the water and it discharged waste poison*

chemical in to the Lake; gradually, the fish were lack algae food and they died; the number of lesser and grater flamingos also decreased and they are migrating to other places (IV-3).

But the Soda-Ash Share Company managements defended its activities and articulated that the company is the sole production company in Ethiopia and that it important for national economy and it benefits local community through employment. Beside this they also pointed that decline of the upstream level of tributaries is the major causes for the reduction of Lake *Abijata* rather than the Company's activities. However, for wildlife conservationist's schemes this activity has impact on the Lake and resulted in the decrease of biodiversity, fragile ecological balance of the lake through disturbing the micro fauna and micro flora in the lake and has more effects on the levels of the lake.

5. Human- wildlife Conflict

Another natural resource use conflict in this park is human-wildlife conflict. During the summer season in all selected *kebeles* some wild mammals damaged the farmer's crops and were also seen in *Negelle Arsi* town and *Bulbula* River. Major crop raiding wild animals are: Warthogs, Porcupines, Common Baboons, Grant's gazelle and Common Jackals. In addition these wild animals damage properties including homes, huts, storage binds, crops, domestic animals, exotic vegetation and injuries to human body. Largely in and around the park every summer season Warthogs and Common jackals are the main wild animals damaging crops and prey on domestic animals. Similarly, common baboons at *Bulibula R*iver and *Negelle Arsi* town enter people's home and damage crops, property and attack children in same cases. The local communities often reported this problem to the park management.

Basically, human-wildlife conflict is the most intense and influence within agricultural regions where human population growth begin to encroach on animal territory to use natural resources. On the other hand, it occurs when the needs and behavior of wildlife impacts negatively on the goals of human or when the goal of humans negatively impacts the needs of wildlife (IUCN, 2005).

As a result of loss and fragmentation of wildlife habitat (land degradation), by human population pressure, the habitat loss tend to cram wildlife habitat in search of food, space and water and lead

to human wildlife conflict. To support this idea one informant stated that: "My farm land is near the park and I grow maize and haricot annually. But Warthog is a main problem for my farm land and as they eat maize and haricot. Even when they don't eat the maize, they simply destroy the crop " (IV-5).

Previously from the background of the living community in and around the national park it's understood that they were agro-pastoralists and pastoralists and much of the natural resources were found in and around the park area. Therefore, they utilized the resources from the park for their livelihood. Thus, this resulted in resource competition between wild animals and peoples, because human wildlife conflict is the interaction of humans and animals that results in adverse impacts for both of them. The decrease on the availability of natural prey/food leads to wild animal's search for alternative food source and consequently human wildlife conflict occurs. Consequently, human encroachment and agricultural expansion in the park is the main element to intensify human-wildlife conflict.

In every year this problem is aggravating the dispute over the park and the policy of Ethiopian Wildlife Conservation Authority has no compensation for the damage of farmer's farm land. The park management has an awareness creation programs for the community through habitual method and with relation to this another informant also said that:

> *To protect my farm land from the damage of Warthogs and Fox, I use some traditional technique: firing tire, erecting scare symbols, fencing and bright battery with the collaboration of my children at night time. However, it has own adverse effect on our health; and the park management does not support us by any means (IV-4).*

Because of this, majorities of the farmers were complaining to the park management and sometimes they think deliberately to revenge the wild animals. From the park key informant of Ranger (KIIR-2) it's understood that, if the conflict intensifies and the awareness creation program has reduce the problem; Ethiopian Wildlife Conservation Authority and the park management have systematically identify the problem animals and they forced to lethal control by licensed hunters and before five years some distinguished common Baboon was culled.

6. Livestock Grazing /Over Grazing in the Park

Livestock grazing in and around the national park is another form of natural resources use conflict between park management and local community. Historically, communities living in the area have a great value for cattle, because cattle are the symbol of prestige, socially and culturally, as well as they are means of income economically. Since the area is semi-arid, livestock have the ability to withstand fluctuations in weather patterns better than crops, and therefore, provide both food and income security for the community.

In the study area there is significant livestock grazing activities. Sometimes livestock enter the national park boundary, even also headquarter, which is $1km^2$ fenced of Ostrich ranch. Therefore, there is a dense involvement of livestock grazing over the park and it comes about a conflict between the park management and the local community. On this case, we can see that the conflict of livestock grazing in to two parts. The first livestock grazing conflict is between the permanent inhabitant of the local community and the second one is between customary transhumant patterns of pastoralists locally called *Godantu* who come from highlands adjacent to park area. Those of transhumance pastoralists starting from June to September, periodically flow in to park and graze their herds in the park territory. From key informant of the park expert explanation understood that:

> *Those pastoralists from the highlands come from distant areas, almost about 40 kms away. They settle in and near the national park for three or more months searching for grazing land. Majority of these transhumant pastoralists have relatives from the permanent resident of the park area. Their relatives here support them to keep cattle and they also form marriage to live on the area. Some of them who don't have relatives in the park area, they build temporary homestead. Following this, human settlements gradually increased in the park and the illegal usage of natural resources from the park area become widespread then progressively they become permanent settler in and around the park (KIIE-2).*

From the above statement it can be concluded that there is transhumant pastoralists on the area and they dependent on the park grazing land mainly on acacia woodland savannah and also increasingly those transhumant become staying in and around the park area. Therefore, livestock grazing in this park is its own effect on rangeland environment and wildlife habitats it, resulting in changes of biodiversity.

Sources: Park files (ASLNP).

Picture 15. Livestock Grazing in and Around the Park Area

7. Deforestation

Forests provide protection and conservation for the environment we live in and have also uses for human being. Several studies show that Ethiopia forest cover accounted for nearly 40 % of its land over the last 50 years, which currently declined to only 3%. Over 17.1% of the country's land is also known to be a protected area. Forests have enormous economic, social, and environmental values. They serve as ritual objects and sacred sites in addition to providing habitat for many animals, birds, insects and other forms of wildlife that are hunted and consumed. The natural resource of Central Rift Valley area consists of savanna woodlands and grasslands. Specifically, the dominant acacia species; Acacia tortillas, Acacia senegal and Acacia seyal found in Abijata-Shalla Lakes National Park.

However, the local communities in and around the national park have been cutting the tress for fire wood, agricultural tools, building materials, fences, fodder and medicines. Human encroachment over the protected area is the main factor to use the park resources and it has been resulting in land degradation and pressures on wild animals and their habitat. Charcoal production is the most dominant illegal activity over the park. The local communities were habitually making charcoal as a source of energy and for selling in urban areas and surrounding rural areas. Charcoal producers keep the charcoal production in a hidden place from the park rangers. Therefore, charcoal making in Abijata-Shalla Lakes National Park is the main natural resources use conflict and it is destroying natural resources of woodland; cause of forest

degradation and cause of climate change and it is also directly influencing large mammals of habitat.

Sources: Park files (ASLNP).

Picture 16. Deforestation and charcoal making over the park

8. Animal Poaching

Poaching is one of the greatest threats to wildlife conservation and commonly the residents of local community in and around protected area illegally hunting mammals for cultural, tradition and to sell their products. In Abijata-Shalla Lakes National Park to some extent poaching is exiting specially in mount *Fike.* Greater kudus were illegally hunted by local community and sometimes Grants' Gazelle and Warthogs were killed by some community members as a revenge for the damage on their crop.

9. Agricultural Practice

Different scholar argued that growth of human population has led to need of produce large quantities of food and larger areas of land were used to agricultural activities, using animal traction, irrigation canals and other intensification techniques. The change in land use through clearing forested or grassland for cultivation, changes in agricultural practices, and these activities were in turn have short come over wildlife habitat management forcing peoples to settle in protected areas and also on the local community. In the study area, farming practices are the most widespread activities and are sources of livelihood for the inhabitants in and around Abijata-Shalla Lakes National Park. The living community was considering the park as their

communal pasture area. This activity where practice in all selected study *kebeles.* From the key informants and participants of FGD, the expression conclude that farming practice beside livestock husbandry is the main economic activities of the area and most part of the park area is changed to farmland and approximately one household have more than 2 hectares farm land. Mostly they produce major crops: maize, haricot bean Sorghum and in some *kebeles Teff* are the main economic livelihood for the community. On this case, the park management seems too refrain to tackling the illegal farming practice because already the problem is lead to complex situation.

CHAPTER FIVE

5. CAUSES OF NATRAL RESOURCES USE CONFLICT IN ABIJATA-SHALLA LAKES NATIONAL PARK

Natural resources are used by people in ways that are defined symbolically. The forests, wildlife and water are not just material that people compete over, but are also part of a particular way of life (e.g. for a farmer, hunter, or pastoralist), an ethnic identity, and a set of gender and age roles. These symbolic dimensions of natural resources render themselves to ideological, social, and political struggles that have enormous practical significance. Even though, protected areas are meant for biodiversity conservation, they are equally important for livelihoods of local communities, especially indigenous people who live and/or depend on the resources available in the protected areas for their survival (DeFries et.al, 2010). However, protected areas are often viewed as islands in isolation from their surroundings, but they are not because they are subject to many outside influences and in turn affect neighboring lands and vice versa. Usually, in protected area natural resources use conflict is occurring due to the claims of local community to accessing the resources and there were push factor for the use of the resources. In the study area, key informants and discussants identified the causes of conflict between park management and community and this chapter is clearly stated these conflict in relation to other similar studies.

5.1. Human Population Growth in the Park

Population growth in and near of park area is the prime mover cause of conflict between local communities and park management. Since its established human population growth has largely increased about 2,800 people in 1971 to an estimated 55,000 in 2010 due to migration into the park and high birthrate among the park residents (Flower, 2011). Now in and surrounding the park area, primary schools, villages, health centers, churches, mosques and infrastructures were widely spread and also local communities needed to access resources for livelihood: agricultural expansion, settlement, mineral extraction, housing materials and grazing livestock (cattle, sheep, goats, horses, mules and donkeys). Following this, it creates conflict between local community and park management, because theoretically, the combination of infrastructure, employment, and necessary goods and services could cause protected areas to serve as surrogate urban centers, attracting human settlement and population growth (Joppa et.al, 2009). It also has direct impact on wildlife habitat and unsustainable use of natural resources. This study also supported by (Theint et.al, 2017), in Popa Mountain Park which is found in China and their findings was

showed that there is high population density in the area and competition between local people who depend on natural resources from the park and the park's conservation goals is relatively high because of the high population density together with the scarcity of resources in the surrounding of area. In hence, it suffered more than others because of the conflict of interest between local livelihoods and conservation.

5.2. Uncertainty of the Re-demarcation Process in the Park

Appropriate demarcation in protected area is a crucial element for preservation of wildlife habitat and is dominant requirements for land tenure security. Boundaries can be demarcated by physical structures through awareness creation of local community. However, usually the park boundaries are often not demarcated with the agreement of local communities (FAO, 2014).

In the study area, when the park was proposed as a national park the total land coverage was 887 Km^2 including aquatic and terrestrial parts. But, still has no official boundary declared by the law. In 2003, the re-demarcation process was begun by Ethiopian Wildlife Conservation Authority, Abijata-Shalla Lakes National Park and other stakeholders. One key informant of park expert was participated when the re-demarcation process is done and described the local community points of view in the following statement:

> *Even though, majorities of local communities have awareness for the program and some targeted groups were involved in the process; however the community living in five kebeles have no interest to demarcate it, because, they fear that may be their land became included in park territory; additionally, they also believed that if park gets definite boundary it is challenging them to use the resources from the park and also they think that, in the main time, the park management will be relocating in to other place. Therefore, due to misunderstanding of the dwellers the re-demarcation process was not completed in such kebeles. In the main time, again, in 2008, the re-demarcation process was completed and to some size the distance of the controversial kebeles was decreased and excluded from the park land. Finally, the document was send to Ethiopian wildlife Conservation Authority but, formally, still the park has no clear demarcation (KIIE-5).*

In the discussion of FGD-2, there were some discussants having positive approaches for the re-demarcation process and generally they stated that; if the park of re-demarcation process was

clearly declared by law, it helps for the park management to managing the resources without human interference.

From the above ideas of informants and discussants explanation we understood that absence of definite boundary over the park is hinder for park managements to protect the park resources, because in the presence of a clearly demarcated border, park resources can be clearly keep apart and decided upon by users. On the other hand, freely to accessing the land majority of residents were not supported the re-demarcation process. Therefore, it consider as the main cause of natural resources use conflict between the park management and inhabitants of the area. On this case, some scholars argue that solely demarcated protected area does not have guarantee for the protection of wildlife habitats, since the pressure of human population growth is existed. To strengthen this, we can take the case of Awash National Park and Siemen National Park and these parks are having official demarcation. However, similar to Abijata-Shalla Lakes National Park there is anthropogenic pressures over the park. Therefore, it requires developing community discussion programs connected to environmental protection management.

5.3. Lack of Secure Land Tenure /certificate

The relationship between protected areas and community land rights is important for both human rights and biodiversity conservation, because land and natural resources are fundamental to existence, livelihoods, cultural heritage, identity, and future opportunities of indigenous peoples and local communities (Rights and Resources Initiative, 2015). However, historically, protected areas have been established as part of broader processes of removal of community lands, gradually, the question of land rights is emerge by local community and it leads to conflict between the protected area and the local inhabitants of the area. Protected areas are owned and controlled by state or non-state actors, and may also comprise a range of other types of tenure rights (FAO, 2014). In Ethiopia the system of land ownership is changed through time when new government seized power and in some occasion the land reform system may causes of conflict between local farmers. Specially, in protected area the question of land right is controversial issue among the residents. Because they have a long history of using of protected area through customary tenure rights and may regard these rights as being legitimate even if they are not recognized in formally-established legislation (FAO, 2014). In the study area, question of land certificate is commonly aroused by local community and they claim for secure land certificate.

Fekadu (2014), pointed on his article, Oromia Rural Land Administration and Use Proclamation no 56/2001 was prohibited the *de facto* ownership of land right for the living communities of in protected areas, so they squatters on their own customary land and those settling in the park area were denied the right to have land title and certificate. Therefore, absence of secure land certificate in the park area is another cause of natural resources use conflict between communities and park management. Following this, local communities of land owners in and around protected area were claim to their ancestral rights and even sometimes they dissatisfied the presence of the national park and one informants of the study area explained that:

> *The issue is not give attention by concerning body but, it has a multifaceted problem for us and also for the park. If the land certificate is approved by government authorities we cultivated on that specific land and we will be stopping using of the park resources and the park management also can protect the resources, and it will be easier to our families to inherit for us. Otherwise, it is challenging to live in the area in the absence of clear land certificate (IV-6).*

Therefore, the provision of proclamation is confusing for the local community who were living in the park territory and they fear that may be the park management has to be relocating from their land. Therefore, weak and ambiguous rules over land ownership and access to resources can lead to overexploitation of community lands and further agricultural encroachment into protected areas and it need to certify their land for ensuring of land rights and to decreases of human encroachment over the protected area(UNDP, 2007).

5.4. Lack of Incentive /benefits/ Program for Communities

The local communities who were living in and around park area were often expecting to benefit from the park resource for economic activities. In principle, local community must strength through community capacity-building program to manage their areas and resources, as well as, technical, financial, and political support for their direct management activities and it can help to gain their acceptance of conservation goals (Beltrán, 2001). However, because of limited resources and capacities, alternative livelihoods are developed in small number. Thus, local communities were dissatisfied with protected areas because they displace them from their homes,

restrict their livelihoods by limiting access to natural resources, fail to deliver promised benefits, and other reasons (West and Brockington 2006).

In the study area, the question, to be benefit from the park resources is frequently requesting by living community. Even though, the park management is design community development program for the local communities due to limited capacity; access and high human population growth not addressed the demand of community. Therefore, when the park community-based conservation program was not given for the local community it leads to contradiction of the park rules to access resources in the park. From the informants and discussants of perspectives the researcher recognized that; the local communities were perceived park as non-governmental organization because, in that area there are non-governmental organization and loges, and these organizations are established infrastructural development and capacity-building activities for the local community. However, when the living community of the park area, comparing the park community development activities from to these stakeholders it is so limited, and leads to conflict between them.

From the park management points of view known that unlike to other National Park of Ethiopia, Abijata-Shalla Lakes National Park is not supported by other project so it is difficult to benefit from the park budget. In fact, there were some stakeholders tried to benefit the local community however their attention is mainly giving of awareness creation for the continuing of conservation management and also give money as peridum for representatives of community members. Therefore, not all communities were permanently benefited from development activities.

In relation to this, the park management is attempts to prepare community mobilization project activity link to environmental friendly fundraising programme for other stakeholders to support of the community. However, it takes time and even there is chances not get a fund. Therefore, communities became lack hope to the park and they forced to illegally use the park resources for daily consumption, as well as, for earning income, as result, it provoked conflict between them.

Protected areas are biodiversity conservation centers and major tourism resources for a nation, providing sustainable benefit to the local community while supporting for the maintenance and rehabilitation of the protected areas (Aramde et al., 2012). Ecotourism is one of the incomes

generating in protected area and it is a holistic conservational approach that incorporates conservation of protected areas and improvement of the livelihoods of communities. Therefore ecotourism is not only helpful in local environment protection but also plays an important role in transforming local community views towards sustainable use of natural resources as they derive direct monetary benefits out of ecotourism. For example, in Bale Mountain National Park (BMNP and Siemen Mountain National Park (SMNP), there are off-farming activities such as tour guide, horse rental service and handicraft seller association and youths are beneficiary. In some situation, in Abijata-Shalla Lakes National Park (ASLNP), there was handcraft association group around viewpoints, but, gradually, the groups were alienated. Currently, in headquarter there are tour guide association group was established by the park management and they guiding tourists, so to some extent, they benefited from the tourist revenue. However, the association group members are small number and from here, it is not to say that the whole communities were benefited from the park resources.

Even if it's most physical and biological components of the park is degraded, still it has high attraction potential. Particularly, for bird watchers /visitors it's one of the destinations and most visited national park in the past few decades. This park has unique landscapes (lakes, hills, islands, gorges etc) this can make it preferable by both domestic and foreign tourists. It has also some distinct and endemic wild animals that could enhance its potential of attractions. However, ecotourism potentials are low contribution compared with its potentials-due to the deterioration of the major tourist attractions, limited tourism infrastructures and services in the park, inadequate tourism marketing and promotional strategies, lack of tourism management capacity, and poor attention by the government. According to key informants of experts and rangers explanation understood that to assess the actual potential contribution for tourism development it is essential to include the following points.

1. natural and manmade tourism resources mainly its attributes for tourism development like:-

- ✓ International importance- biodiversity of plant and animals, rare plants and animals, historical, cultural and spiritual structures: proposed and potential Ramsar site, the major

corridor for migratory birds, home for globally threated bird species, the role of Geda system on nature conservation,…..

- ✓ Diversity of outdoor activities- Number of available recreational activities offered walking on natural trails, bird watching, spotting wildlife, plant observation, exploring/visiting caves, climbing/trekking, swimming, Satellite camping, campfire, cycling, sailing/boating/kayaking, zip line/canopy tour, fishing, …..)
- ✓ Accommodation: no. camping grounds with facilities, no of eco-lodges, resorts, bar and restaurant, etc. in around the vicinity of the park
- ✓ Accessibility (internal access and external access) very close to the capital and accessible throughout the year, its geographical location on the major Rift valley and mosaic cultural tourism route
- ✓ Information centers and
- ✓ Local community (traditional music, cultural activities….)

2. Contribution for local economic benefit: community-based ecotourism associations (employment opportunities, job creation, guiding, souvenir shop, ------)

3. Considering visitor number and income generation (park entrance fee, camping, vehicle entrance fee…)

Tourism provides one of the few opportunities for enhanced community to be linked directly to protected area conservation, both through direct employment and livelihood opportunities, as well as, sharing of tourism area revenues with communities in the production landscape. Revenue-sharing arrangement involving the local people would be a better initiative for the development of community, living adjacent to the protected area, through providing financial supports to the co-management organizations (UNDP, 2007).

Some Africans of protected area have been able to reinvest a portion of visitor entrance fees in local community projects and such reinvestment constitutes a direct incentive for biodiversity conservation, as the communities benefit directly from the existence of the protected area. But majorities of protected area have no ability to generate additional income or the resources and capacity to promote business opportunities for communities. Abijata-Shalla Lakes National Park has potential natural resources and it is the main tourist attraction area. The living communities were seeking to benefit from the tourist revenue however, the tourist income is send to federal

government and they upset to this trend and so leads to conflict between them. Benefit sharing has to be considered as a resolution technique to mitigate the tension between these two bodies. The park management has the responsibility to make local communities to be benefited from the park. Studies has to be conducted to identify on how to make local communities beneficiary aside with conserving natural resources found in the area. Once, the local communities recognized the economic value of the park it would easy to reduce the conflicting interests. Even though it is hardly to overcome the conflicting interest between the park and local community, it is essential to reduce it. This conflict reducing effort has advantage for both park management and local community to sustain the biodiversity conservation and the healthy livelihoods of the public's respectively.

5.5. Dependence on Park Resources for Livelihood

In Abijata-Shalla Lakes National Park the local communities were mostly depended on the park resources for their livelihood and this livelihood interest were contradicted to the objective of protected areas. Therefore, dependence of on park resource by the communities for economic and social circumstance is the main cause of conflict between park management and residents. Generally, from the informants and discussants of explanation concluded that, there are possible factors for the use of the park resources. The area is semi-arid and the rainfall condition is not constant in every year so, economically they are not secured. On the other hand, due to high population pressure and lack of alternative livelihood in the area they push to accessing and controlling the park resources. On the contrary, the park management to protect the illegal practices, forced to over the community to stopping such activities. Therefore, it caused negative attitudes among local communities towards the existence of the park and in hence, there is an existed unfriendly relationship between them.

In the conversationalist view, restriction of accessing resources for local community is essential for the success of conservation biodiversity by constantly patrolling and physically guarding the park area. This indicates that in some cases, it is necessary to restrict access to National Parks for more effective conservation of biodiversity because, various conservational findings indicated that biodiversity in strictly guarded areas was more conserved than in less guarded areas (Moses and Kevin,2013). In addition, permitting restricted access to park resources where National Parks

are surrounded by high population densities may also lead to the harvest of resources in an uncontrolled manner. In such case, strict preservation may be the solution in the short term. However, since the subsistence economies of indigenous communities are based on the use of and access to natural resources, protection of these resources and of traditional practices for their use, management and conservation are essential to ensure their survival (Fernández et.al, 2007).

5.6. Limited Community Participation and Consultation Program

Communication, consultation, and participation are key elements for constructive relationships between protected areas and local communities. It is important to strength the social organization of local communities and collaborates with local stakeholders on issues concerning economic activity and protected area objectives (UNDP, 2007). Majorities of informants and discussants in the study area described that park management has an awareness creation program in schools, adjacent *woredas* and *kebeles.* Community representatives of the area and other concerning stakeholders were participated in meeting and seminal discussion, regarding to the protection of the park resources and to mitigate the proscribed activities over the park. Therefore, they have awareness for the existence of the park and even also the restriction of the resources in the park. However, they are neglected in the decision-making of park management activities and they also reported that were not treated by the park staff specially, the rangers are use power to over them when they doing of the prohibited practices over the park and this resulted not keeping of the park objectives and conflict is occur between park management and communities. This situation generally arises when there is inadequate local participation in all phases of interventions, and when insufficient consideration is given to anticipating conflicts that might emerge and also it appear lack of harmony and coordination among the community and the park management particularly when policies, programs and projects fail to consider local situations. Therefore, the participation of local people in decision-making can create room for sharing of important knowledge and preferences. The integration of local knowledge into the co-management process will help formulate more effective management plans to ensure sustainability, as well as the equal sharing of benefits among local people and the authorities of the protected area by minimizing the conflict between them (FAO,2000).

To reduce /or overcome conflicting interest between the park management and community the first thing that should be done is intensive awareness creation and continuous education program

for local community regarding wildlife conservation and its importance is among key works which shall be carried out to reduce the gap between these two bodies. Local community, particularly the one who lives inside and border of the park should have to believe on the existence of this park in their surroundings, unless otherwise it would be difficult to protect it sustainably for future generation. Local community and the park management shall be come together on specified time to make their relation smooth and to reach on common solution. Most of the conservation scholars suggest that conservation should be holistic (all-inclusive) to overcome conflicting interest. This may include the community who directly or indirectly reliant on the natural resources of the area. This principle of conservation option is very necessary to the wildlife and biological diversity which are impacted by anthropogenic effects like ASLNP. Conserving the park with local community through ecotourism engagement, Community based degraded land conservation principles becomes popular in most areas of the country with the frame work of green legacy that makes biodiversity and local community to be maintained and become advantageous for both. Participatory management is also promotes local community ownership over some resources with sustainable utilization and community based organizations. Youth ownership in some management activities like ecotourism operations (guiding, cooking, community lodge…), non-timber forest products (bee hives)

5.7. Weak Wildlife Policies Concerning to Local Community Participation

This is another cause of conflict which is stated by key informants and discussants of the study area. When protected areas are established to managing wildlife habitat, usually, wildlife policies were not proper designed concerning to community participation and it miscarry to recognized their rights concerning of exploitation of resources and it becoming too hostilities between community and protected area.

Previously, Ethiopian wildlife policies were exclusionary approach, which means "wildlife first". Therefore, priority is given to for protection of wildlife conservation and has been source of conflict between communities living in/around the park and authorities responsible for conserving park ecosystems and biodiversity (Jacobs and Schloeder, 2001). Currently, partially, the Ethiopian wildlife policy is changed from exclusionary approaches to participation of local

community in wildlife conservation management and the Ethiopian Wildlife development, conservation and utilization regulation enacted by council of ministers No. 163/2008 stated as:

> *Persons who were inhabitants of wildlife reserve prior to the date of its establishment, to continue residing therein (Article 3: b). cognizant to this, Article (4) states persons authorized to reside in a wild life reserve pursuant to sub-article 3(b) of this Article shall have the right to cultivate their land plots without expanding, to allow their domestic animals graze and water, and to undertake bee keeping therein; provided however, that if the organ administering the wildlife reserve wishes to further develop the area, the in habitants may be resettled elsewhere. Moreover, based on agreements made between national park or wild life sanctuary management and the surrounding communities, seasonal utilization of natural resource such as bee-keeping and honey harvesting, cutting and taking of forage and medicinal plant collection, may be permitted under controlled conditions (Article 2(e).*

However, practically, in the ground level it is not working and different researchers were demonstrated that the policy is not clear regarding to community involvement over the utilization of the resources.

5.8. Overlapping of Industrial and Investment Activities in the Park Area

There are certain incidents in the protected area which is unfriendly stakeholders for the protection of wildlife habitat and consider as causes of natural resource use conflict. Most of the time, large industrial and investment activities around protected area were established for the benefits of community livelihood and poverty alleviation of the country. However, such activities are practiced without limited cross-sectorial planning and coordination of protected areas, and in hence, some of Ethiopian protected areas are suffered from unrelated investment and industrial activities, for example, *Gambela,* Awash and *Omo* National Parks are faced such kind of problems. As a result, it is difficult to bring conservational goal over the protected areas.

Similarly, in Abijata-Shalla Lakes National Park there is a practice of industrial activities and it account cause of conflict between the park management and the stakeholders. Abijata-Shalla Soda Ash Share Company is one of the causes for the reduction of Lake Abijata. As we have

known in the earlier discussion this company extracts water from the Lake Abijata and producing caustic soda materials and the water level of the Lake is gradually vanishing at alarming rate. This kind of conflict is the most complex at national level since the park proposed as one of international important bird area (IBA) and on this case; the park managements were not forced and decided to stopping the activities of the factory.

In related to this, the commercial farm around Lake Zeway is affects the Lake Abijata, on this area, there are enormous large scale horticulture and floriculture. Frequently, such kind of activity is may be promote cash crop expansion to raise incomes without identifying of its adverse effects on the resources. Therefore, without proper mitigation measures on National Parks most of these commercial activities are unattainable conducted with only a short- term gain (EWNHS, 2009).

Previous studies predicted that the water level of Lake Abijata has dropped because of the Ziway's water level and they confirmed that this is for the reason that the reduction in the flow of the Bulbulla River (tributaries of Lake Abijata) is due to water abstractions in the Ziway basin and from the Bulbulla River. The Bulbulla River has been reduced from an average annual flow of 200 Mm3 /y to approximately 50 Mm3 /y and, based on water balance modeling, this is sufficient to reduce the water level in Lake Abijata by approximately one meter per year. Additionally, water abstraction from the Ziway-Bulbulla watershed will have severe effects on Lake Abijata (Flower, 2011).

6. EFFECTS OF NATURAL RESOURCES USE OF CONFLICT OVER THE PARK

As we observed in chapter five informants and discussants were reported different kinds of natural resources use conflict in ASLNP. These natural resources use conflict mainly originated from anthropogenic factors. Therefore, the anthropogenic activities have been results habitat interruption and distraction in terrestrial of wildlife habitats and aquatic parts of the park. This section is describing the effects of it over the park resources and also the community.

6.1. Effects of Natural Resources Use in Terrestrial Habitats of the Park

Most terrestrial part of the park is occupied by human-induced activities except the areas which are not accessible for living, cultivating and grazing. According to (Yohannes et.al, 2017), land coverage of the park is highly changed since 1973, 1994, 2000 and 2016.

Land use class	1973		1994		2000		2016	
	km^2	%	km^2	%	km^2	%	km^2	%
Water bodies	665	37	570	32	699	39	387	22
Woodland	199	11	137	8	81	4	40	2
Cultivated land	199	11	295	16	134	7	466	26
Grazing land	301	17	380	21	458	2	554	31
Bare land	429	24	410	23	420	2	345	19
Total	1793	100	1793	100	1793	100	1793	100

Table: 3 Change in land use types over time (area in sq. km and percentage). Sources: (Yohannes et.al, 2017).

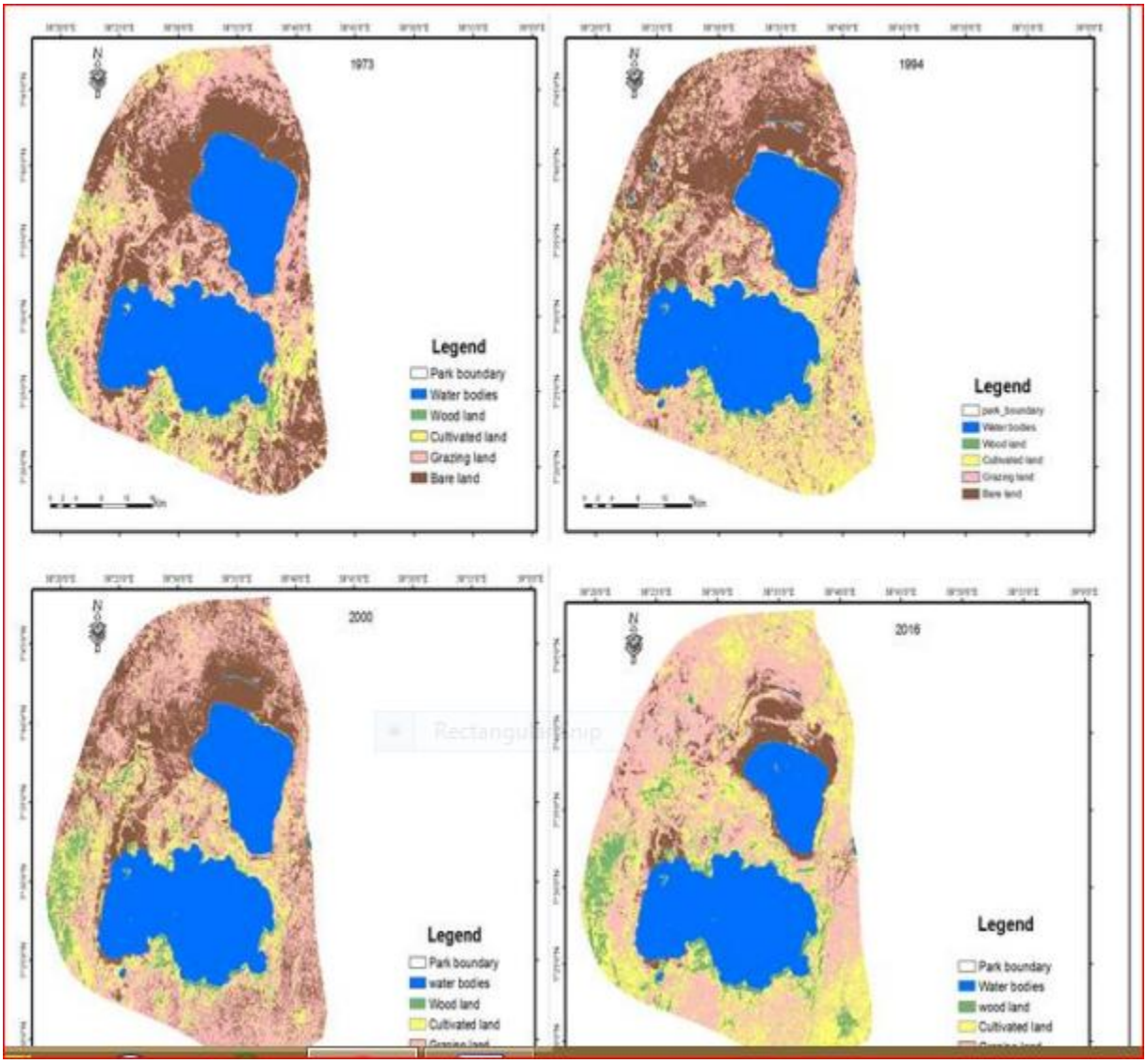


Figure: 1. Land use land cover classification in Abijata Shalla National park (1973-2016). (Sources: (Yohannes et.al, 2017).

Similarly, other study also indicated that the vegetation covers of park, is 40-75 km^2 of Acacia woodland has been transformed over into degraded area a combination of agricultural land and other deforested areas (Flower,2011). To support this, key informant of the Park expert was described:

> *The tree cover stands at less than 50% of pristine conditions due to tree felling for wood, charcoal production, and cultivation. Grasses and shrubs are heavily overgrazed by*

cattle, donkeys, sheep and goats. The lack of vegetative cover is leading to erosion and to siltation of the lakes. Since the savanna grass lands are severely grazed, alien or invasive species are seen flourishing in some areas in and around the park. For instance, the long grasses found within the fence of the head quarter are currently replaced by these alien herbaceous species which negatively affect the regeneration of acacia seedlings at the area. Even, what is currently made a big problem is since the grasses are swipe out; the grass eating mammals within the park are shifting their gazing style to destroy the community's resources such as maize and barley KIIE-4.

Previously, the area was not as such like and one key informant of *Abba Gadda* was described the former existence of the park in the following expression.

I'm 68 years old elder. Before the establishment of this park I was a merchant; during that time, the area was extremely full of forest; due to this, it was challenged to move the road by alone, Currently, the forests are diminishing; if it is going to like this, it is difficult to get a shady place KIIA-3.

The other effect of natural resources use in ASLNP is the decline of mammal species. The prior recorded data showed that there were diverse kinds of mammal's species such as Swayne's Hartebeest, Buffalo, Oryx, Waterbuck, Giraffe, and Lion. However, gradually, these species totally disappeared from the park area and currently, Grant's gazelle, Greater Kudu, Colobus Monkey, Rock Hyrax, Klipspringer, Oribi, Spotted Hyena, Common Jackal, Warthog, Aardvark, Bat, and Fox were found in and around the park. However, due to human encroachment on the park area some these wildlife mammals are under threat by domestic animals. For example, the Oribi which live at the grassy area on the Northwestern part of the park are living and seen when they are feeding with goats and livestock of the community. This may cause another transmitted disease from goats to Oribi or vice versa. In addition, most secured breeding areas and browsing sites for large mammals are still cultivated for the aim of agricultural land expansion. Consequently, because of these reasons, different wildlife species are locally extinct, for instance the very attractive terrestrial bird, Secretary Bird is currently not seen within the boundary or near the park. Therefore, from the secondary data and expression of informants and discussants it can conclude that the rapid and remarkable expansion of human population has led to the transformation of much of the landscape.

The decrease of woodlands of the park resources has negative impacts to large number of terrestrial species of animals including migratory birds and resident birds for their feeding and breeding. Additionally, it is cause of conflict between the community and the park management which directly impose pressure on daily activities of the wildlife rangers.

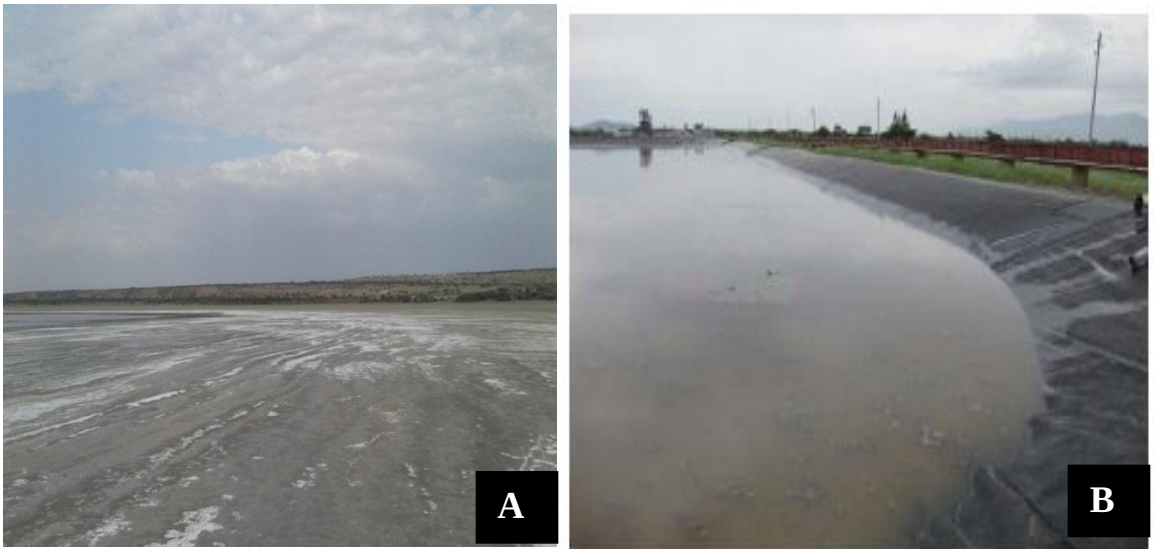
6.2. Effects of Natural Resource Use in Aquatic Part of the Park

The key ecosystem of the park, aquatic areas, are decreasing at an alarming speed, especially Lake Abijata, the shallow and most known feeding ground and hosts many migratory and resident water birds at the international level is under a question. Earlier researcher's findings and key informants and discussants views showed that there are critical causes for the reduction of Lake Abijata. Specifically, human-induced impacts such as irrigation agriculture development in Lake Zway, industrial activities of on park land and also climate changes were account for the decrease of the Lake.

In Lake Zway there is irrigation agricultural development which is serving as horticulture, floriculture and flowers. Large tracks of land around Lake Zway assist as centers for these operations and depend on water sources from the lake Zway. This has placed a strain on the lakes water resources. Most if not all of these projects have not undergone proper environmental impact assessments (EIA) (EWNHS, 2009). Lake Abijata is get water on seasonal precipitation, river inflows from Hora Kelo (contributes only about 8% of the total inflows to the lake) and Bulbula river, which was the largest inflowing river into Lake Abijata from Lake Ziway. So, such interference is affects the water amount of Lake Abijata (Fetahi, 2016). The lakes are also changing not only in volume but also in quality as result of chemical pollution produced by the irrigated commercial agriculture (Flower, 2011).

Another cause is the effect of Soda-Ash Share Company which is established on the near of Lake Abijata shore and since mid-1980 the Factory abstract water from the Lake to produce Caustic Soda by using of traditional techniques. In hence, water abstraction by Soda-Ash factory is extremely adverse on the lake. From the park expert of key informant explanation the researcher understood that generally, around the park area before two decades ago more than 50 water fowl species were recorded on this alkaline and phytoplankton rich Lake. From the recorded birds, more than half were migratory species. But currently this, Picture has dropped to less than half and the number of pelican birds is decreasing because of decreasing the fish population at Lake

Abijata, affected by Soda Ash factory, which is situated at the shore. The lake water is polluted causing loss of algae on which fish feeds. As a result, the Pelicans that feed on the fish migrated. Piscivorous birds (e.g., pelicans and fish eagles) have all but disappeared from the park, most likely due to lack of fish in Lake Abijata. Water birds that nest on the ground (e.g., flamingoes), once very abundant, also appear to be in decline, likely due to disturbance by humans, livestock, and dogs (Flower, 2011). Currently, the effects of natural resources use conflict on this park is not only affects the park resources, also local communities were suffering and they reported that the alluvial part of the Lake is grasped their domestic animals and some of animals were died. .



Sources: Park file

Picture 17. A. Current existences of Lake Abijata and B. Water abstraction by Soda-Ash Share Factory

To sum up, ASLNP is harboring half of the bird species of the country and its ecological and other values are crucial in the Great Rift Valleys of Ethiopia. The intention behind the establishment of this park has mainly been to conserve and protect bird species (both migratory and resident) which are roaming in the area permanently or temporarily. Currently, the park has no General Management Plan (GMP) which could describe about its objective and goal. Biological and physical components are highly degraded when compared with the time of its establishment. Both water bodies (Lake Abijata) and terrestrial of the park deteriorated mainly

due to anthropogenic activities and still the problem continued with sever conditions. The effects of natural resource use in ASLNP, in terms of wildlife distraction is boldly observed and many terrestrial and water based wildlife are in a big problem. This could be summarized as, if the feeding, nesting and breeding habitats of wildlife are diminished, it is difficult to say the area is acting as biodiversity protecting and conservation area since it did not fulfill the criteria of IUCN (International Union on Conservation of Nature). Therefore, it needs synergy of local, regional, national and international community and political willingness of officials at each level to make the area the true wilderness for wildlife conservation and proper utilization. On another aspect, the areas which have a tourism potential before are not in a good conditions of attracting tourists. This is directly decreasing the income from Ecotourism for the park.

Recently, the park office has started a new approach to save the park from complete lockdown. This approach focuses on associations (cooperatives) which are mainly organized to maintain and conserve the remaining wildlife resources found in different parts of the park. These associations are playing a significant role in restoration and conservation of wild animals and key habitat areas within an area that has been given to them to manage it. This task has boosted the performance of the park and enhanced its hope of existence. Most of the protected areas in Ethiopia as general are not being managed based on their clear established objectives, even though they have boldly written paper document on their board. In addition, some of them (National parks and wildlife sanctuaries) do not have their own actual written objective other than copying from the EWCA Head office. In case of ASLNP, the same is true like other parks. Its repeatedly shifting of the administration from regional to federal has also its own side effect on the park management. For instance, during 1970s the park management was under Ministry of Agriculture at federal level, then in 1980s they shifted the administration to Oromia region under and the park management again taken to the federal Ethiopian Wildlife Conservation Authority. This has contributed to the weak performance of the park management. Therefore, to conclude that the length of time the park was in operation and its performance is not going in parallel way. This leads to the current conservation controversies in the area.

CHAPTER SEVEN

CONCLUSION

The aim of protected areas is to conserve natural resources through long–term environmental development without the intervention of human-induced illegal activities to the resources. Yet, communities living in and around the protected area seek to access the resources for their livelihoods and sources of income. However, this claim of resources utilization over the park resources is contradicts with the objectives of the protected area and causes conflict between the park management and communities living in the area. Following this, the local communities have negative attitudes towards the park management. Abijata-Shalla Lakes National Park has immense natural resources including: wildlife species, vegetation type, landscape scenery, bird species, lakes, Hot spring and other natural resources attraction. The park also is well-known Ornithological site and it contributes to tourism development of the country. However, due to anthropogenic problems the park potential natural resources are diminished. The present study showed that within the park there are different types of natural resources use conflict between the park management and local community. Mainly the conflicts are the issue of resources utilization over the park resources and emerged from the human-induced activities because the living communities were believed the park land is communal property. Generally, the study indicated that mineral extraction, industrial activities, human-wildlife conflict, over grazing, deforestation, fuel wood collection, agricultural expansion, and poaching are the major natural resources use conflicts between the park management and the local community and it consider as the main threats of conservational management.

The study has attempted to the causes of natural resources use conflict over the National Park of Abijata Shalla Lakes National Park and from the majority of informants and discussants of points view revealed that there are chronic push factors for the causes of conflict between the park management and the local community. Specifically, the causes are aroused from demographic factors; the area is highly populated and the living community of the area economically was not secured. Therefore, mainly their economy is depended on the park resources and it aggravated the conflict between the park management and the local community. On the other hand, there is an administrative problem for the causes of conflict over the park which is the uncertainty of the re-demarcation process, lack of secure land tenure/certificate.

The other causes of conflict between the park management and the local community is weak wildlife polices which is limited community participation and consultation program concerning on community development and resources utilization and overlapping industrial and investment activities are also major causes of conflict between the park management and local community.

The study also showed that due to resources used by local community from the park territory the park potential natural resources are vanishing at alarming rate and the most terrestrial parts of wildlife habitats are interrupted and the aquatic parts of the park is also threatened.

To conclude, since, there are dynamics of land use, which seriously affect the park, there, should be proper management strategy such as proper demarcation and avoid human interference, improve the livelihood of the community, shifting to green economy and implementation to rehabilitate. Awareness creation Training and capacity building is also important for Park staffs to create an understanding about the role of communities and stakeholder involvement in park management that increases stewardship by the community. Involvement of local people in the planning and implementing integrated water, grazing, and forest management and monitoring programs. Strengthen the capacity of institutions involving in park management by directing the revenue from the tourist industry to the wildlife/tourism authority and park management. Conducting environmental impact assessment (EIA) for development activities inside or outside the national park and monitoring and follow up for the implementation of the recommendations. The hope of Restoration of degraded ASLNP is that the area will be greened and conserved and the wildlife will maintain then they add another incentive for tourism, which in turn help and support local livelihoods.

References

A.H. M. Raihan Sarker,Amir Hossen, Ma Suza & Eivin Røskaft. 2017. Protected Area versus People Conflict and a Co-Management Programme: A Case Study from the Dhudpukuria-Dhopachari Wildlife Sanctuary: Vol. 7, No. 2; 2017 ISSN 1927-0488 E-ISSN 1927-0496 Environmental Sciences, University of Chittagong, Bangladesh.

Abiyot, Negera B. 2009. Resettlement and Local Livelihoods: in Nechsar National Park, Southern Ethiopia. Master's thesis: University of Tromsø, Norway.

ACCORD (African Center for the Constructive Resolution of Disputes).2009. Natural Resource of Environment and conflict: ACCORD, Private Bag X018, Umhlanga Rocks 4320, Durban, South Africa.

Adem Gobena.2008. Assessment of Ecotourism Potentials for Sustainable Natural Resources Management: in and around Abijata-Shalla Lakes National Park in the Central Ethiopian Rift Valley. M.Sc. Thesis. Environmental Science: University of Addis Ababa, Ethiopia.

Adrian P. Wood .1993. Natural Resource Conflicts in South-West Ethiopia: State, Communities, and the Role of the National Conservation Strategy in the Search for Sustainable Development University of Nordic Journal of African Studies 2(2): 83–99.Hudders field, UK.

Ahmed Mohammed. 2017. Review on Impacts of Protected Area on Local Communities, Livelihoods in Ethiopia. Journal of Resources Development and Management: www.iiste.org ISSN 2422-8397. An International Peer-reviewed Journal Vol.39.

Alan. B. & J. Spencer. 2005. *Encyclopedia of Social and Cultural Anthropology* .USA and Canada by Rutledge 29 West 35th Street, New York, NY 10001.

Alemneh Amare. 2015. Conservation Challenges of Gibe Sheleko National Park, Southwestern Ethiopia. Natural Resources, 6, 286-289.

Amare, A. 2015 Wildlife Resources of Ethiopia: Opportunities, Challenges and Future Directions: From Ecotourism Perspective: A Review Paper. Natural Resources, 6, 405-422. http://dx.doi.org/10.4236/nr.2015.66039

Amity A. Doolittle. 2007. Encyclopedia of Environment and Society: "Fortress Conservation" Pub. Date: 2007 Access SAGE Publications.

Anaya, F. C., and M. M. Espírito-Santo. 2018. Protected areas and territorial exclusion of traditional communities: analyzing the social impacts of environmental compensation strategies in Brazil. Ecology and Society 23(1):8. https://doi.org/10.5751/ ES-09850-230108

Andrade and Rhodes. 2012. Protected Areas and Local Communities: An Inevitable Partnership Toward Successful Conservation Strategies? *Ecology and Society*.17(4):14. http://dx.doi.org/10.5751/ES-05216-170414 .Approaches. 4th. Edition: UK: Alta Mira press.

Aramde, F.,Tsegaye, and B., Tiwar, PK. 2012. The Contribution of Ecotourism for Sustainable Livelihood Development in the NechSar National Park: Ethiopia. Int. J. Environ. Sci. 1(1):19-25.

Argaw, K. 2008. The Value of the Ethiopian Protected Area System: Message to Policy Makers. Addis Ababa, Ethiopia: Austrian Federal Forests (ÖBf AG).

Asmerom Legesse. 1973. Gada: Three Approaches to the Study of African Society. London: The Free Press

Beltrán, Javier. (Ed.). 2001. Pueblos Indígenas y Tradicionales y Áreas Protegidas: Principios, Directrices y Casos de Estudio. IUCN, Gland, Switzerland and Cambridge, UK and WWF International, Gland, Switzerland.Berg, Bruce Lawrence. 2001. Qualitative

Research Methods for the Social Sciences.4th Ed. USA: A Pearson Education Company.

Berihu Gidey and Bheemalingeswara Konka. 2019. Challenges Associated with Quality of Soda Ash: Abijata Lake Central Main Ethiopian Rift: http://dx.doi.org/10.4314/mejs.v11i1.8 Ethiopian Journal of Science (MEJS), V11 (1):124-139, 2019. Mekelle University, ISSN: 2220-184X, Mekelle University, Ethiopia

Bernard, H. R. 2002. Research Methods in Anthropology: Qualitative and Quantitative Approaches, 3rd ed. Walnut Creek, CA: Altamira Press.

Bethlehem Abebe. 2013. *Multiple Enactments of Abijata-Shalla Lakes National Park, Ethiopia.* M.Sc. *Wageningen University*

Brockington, D. 2002. Fortress Conservation: The Preservation of the Mkomazi Game Reserve Tanzania. Oxford: The International African Institute.

Burnod, K. 2007. Ethiopia Energy Access Project: Mineral Component - Mineral Policy, Legal and Institutional Framework Study. Inventory of Environmental Impacts of Mining Activities in Ethiopia (Draft): Report by SOFRECO.

Buscher, Bram and Whande, Webster. 2007. "Whims of the Winds of Time? Emerging Trends in Biodiversity Conservation and Protected Area Management. "Conservation Society.Vol.5no.1.Athttp://www.conservationandsociety.org/cs-5-1_2-22 webster.pdf.Accessed on 03.26.2009.

Cernea, Michael and Schmidt-Soltau. 2006. "Poverty Risks and National Parks: Policy Issues in Conservation and Resettlement". World Development Vol. 34 No. 10:1808–1830.At http://conservationrefugees.org/pdfdoc/povertyrisks.pdf. Accessed on 10.15.2008.

CSA(Central Statistical Agency).2008. Summary and Statistical Report of the 2007: Population and Housing Census Results. Available at: www.cia.gov/ library/ publications/the – world-fact book/print/et.html.

CSA(Central Statistical Agency).2008. Summary and Statistical Report of the 2007 Population and Housing Census Results. Federal Democratic Republic of Ethiopia, Addis Ababa.

Dame Abera 2014. Childrearing among the Arsi Oromo: Values, Beliefs and Practices School of Psychology, PhD Dissertation, Addis Ababa University.

Daniel Worku. 2003. A highlight on tourism potentials of Abijata shalla lakes national park. Unpublished park office document. ASLNP. Dole, Ethiopia.

Dattalo P. 2008.Determining Sample Size: Balancing Power, Precision, and Practicality. Pocket Guides to Social Work Research Methods. Oxford University Press, New York.

David Himmelfarb.2006. Moving People, Moving Boundaries: The Socio-economic Effects of Protectionist Conservation, Involuntary Resettlement and Tenure Insecurity on the Edge of Mt. Elgon National Park, Uganda, University of Georgia 250 Baldwin Hall, Athens, GA, USA.

DeFries, R., Karanth, K. K., and Pareeth, S. 2010. Interactions between Protected Areas and their Surroundings Human-Dominated Tropical of Landscapes:[doi: 10.1016/j.biocon.2010.02.010]. Biological Conservation, 143(12), 2870-2880

Derera Ketema.2017. Ethiopia: Changes from "People out Approach" Protected Area Management to Participatory Protected Area Management? Insight from Ethiopian Protected Areas IOSR Journal of Environmental Science, Toxicology and Food Technology (IOSR-JESTFT) e-ISSN: 2319-2402 p- ISSN: 2319-2399.Volume 11, Issue 2 Ver. IPP 49-55 www.iosrjournals.or.DOI:10.9790/2402-1102014955, Arba Minch University.

Dudley, N. (Editor). 2008. Guidelines for Applying Protected Area Management Categories. Gland, Switzerland: IUCN.

Dudley, N. 2008.Guidelines for applying protected area management categories. IUCN. https://doi.org/ 10.2305/IUCN.CH.2008.PAPS.2.en

Dudley, N. and Stolton, S. (eds.) 2008. Defining Protected Areas: an International Conference in edited by Jane Carter Ingram, FabriceDeClerck, and Cristina Rumbaitis del Rio.

Effah, Gilbert.2014. Assessing Natural Resource Use Conflicts in the Kogyae, Strict Nature Reserve: Ghana.MS.c. Thesis. In Kwame Nkrumah University of Science and Technology, Hon. BSc. Development planning.

Engel, A. and Korf, B.2005. Negotiation and Mediation Techniques for Natural Resource Management; Prepared in the Framework of the Livelihood Support Programme (LSP); An Interdepartmental Programme for Improving Support for Enhancing Livelihoods of the Rural Poor. Management Service and Information Division: FAO Vialedelle Terme di Caracalla, 00100 Rome, Italy.

Ethiopian Biodiversity Institute. 2014. Ethiopia's Fifth National Report to the Convention on Biological Diversity. Addis Ababa, Ethiopia.

EWCA (Ethiopian Wildlife Conservation Authority). 2013. Development of Marketing Strategy for Wildlife Tourism in Ethiopia Addis Ababa: EWCA 9-141p.

EWNHS(Ethiopian Wildlife Natural History Society). 2009. Ethiopian central Rift valley: Nature .Threats and current status. The Royal Netherlands Embassy: Addis Ababa. Ethiopia.

FAO (Food and Agricultural Organization). 2000. Conflict and Natural Resources Management. Rome, Italy.

FDRE (Federal Democratic Republic of Ethiopia).2007. Development, Conservation and Utilization of Wildlife Proclamation. No. 542/ 2007, Addis Ababa, Ethiopia.

Fekadu Tefera, and Rezenom Almaw. 2002. Major attractive fauna bird species of Abijata Shalla Lakes National Park. Addis Ababa, Ethiopia.

Ferehiwot Mequanint and Shewit Gebremedhin, 2015. Contribution of Local Community for Ecotourism Development in and around Abijata-Shalla Lakes National Park with Emphasisto,Ethiopia. AustralasianJournalofSocialScience,1:119.dol.10.3923/aujss.2015.1.19https://scialert.net/abstract/?doi=aujss.2015.1.19.

Fernández- Baca, J.C. and Martin, A.S. 2007. Indigenous Peoples and Protected Areas Management: Innovations in Conservation Series, Parks in Peril Program. Arlington, VA, USA: The Nature Conservancy.

Fetahi. T. 2016. Greening a Tropical Abijata-Shala Lakes National Park, Ethiopia - A Review. J EcosysEcograph 6: 179. doi: 10.4172/2157-7625.1000179.

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

Fikadu Teferra. 2011. Conflicts and Resolution Methods in Protected Areas: The Case Of AbijataShalla Lakes National Park, Oromia National Regional State: Ethiopia. M.Sc. Thesis, Haramaya, University.

Firew Bekele and Solomon Estifanos. 2018. Challenges to National Park Conservation and Management in Ethiopia. Journal of Agricultural Science; Vol. 10, No. 5; 2018 ISSN 1916-9752 E-ISSN 1916-9760. Canadian Center of Science and Education.

Fisher et al. 2005. Poverty and Conservation: Landscapes, People and Power. Switzerland and Cambridge: IUCN. At.www.rightsandresources.org/publication_details.php?publicationID=97.Accessed on 10.14.2008.

Fisher, E. 2002 Forced Resettlement, Rural Livelihoods and Wildlife Conservation along the Ugalla River in Tanzania. In D. Chatty and M. Colchester, (eds.), Conservation and Mobile Indigenous Peoples: Displacement, Forced Settlement and Sustainable Development. New York: Berghahn Books. p. 119-141.

Goldman RE and Borkan J. 2013. Anthropological Approaches: Uncovering Unexpected Insights about the Implementation and Outcomes of Patient-Centered Medical Home Models. Rockville, MD: Agency for Healthcare Research and Quality. AHRQ Publication No. 13-0022-EF.

Hailu Menali. 2011. Potentials and Challenges of Alatish and Dinder National Parks (Ethiopia, Sudan) for Implementing Transboundary Park Cooperation.MSc. thesis, Management of Protected Area's Program, and University of Klagenfurt, Austria.

Hanna, Siurua. 2006. "Nature Above People: Rolston and "Fortress" Conservation in the South." Ethics and the environment 11 (1):71-96. At

Hillman, J. C. 1993. Ethiopia: Compendium of Wildlife Conservation Information. Report by the Wildlife Conservation Society International (NYZS) and Ethiopian Wildlife Conservation Organization (EWCO). Addis Ababa, Ethiopia. 766 pp.

Hirut Terefe. 2012. Gender Relation, Female Genital Mutilation and Reproductive Health: The Case of Arsi Oromo, Ethiopia. Addis Ababa University press

Holmes A. 2013. Direct Observation. In: Volkmar F.R. (eds) Encyclopedia of Autism Spectrum Disorders. Springer, New York, NY.

IUCN (International Union for Conservation for Nature), 1994. Guidelines for Protected Area Management Categories: Cambridge,U.K., and Gland, Switzerland: IUCN. IUCN Pakistan Programme. 1994. Proceedings of Karakoram Workshop. IUCN Gland, Switzerland.

IUCN (International Union for Conservation for Nature), 2008, Guidelines for Protected Area Management Categories, IUCN, Gland, Switzerland.

IUCN.(International Union for Conservation for Nature), 2005).Preventing and Mitigating Human-Wildlife conflicts.WPC Recommendation V. 20.

Jacobs, M. J., and C. A. Schloeder. 2001. Impacts of conflict on biodiversity and protected areas in Ethiopia. Washington, DC: WWF Biodiversity Support Program.

Jemila Adem. 2014. Women and Indigenous Conflict Resolution Institutions In Oromia: Experience From Siinqee of The Wayyu Shanan Arsi Oromo In Adami Tullu Jiddu Kombolcha District Of The Oromia National Regional State. M.Sc. Thesis. Social Anthropology: Addis Ababa University.

Jesse S. Ayivor, Chris Gordon and Yaa Ntiamoa-Baidu.2013. Protected Area Management and Livelihood Conflicts in Ghana: A Case Study of Digya National Park Sanitation Studies, University of Ghana, Legon,

Jeylan W. Hussein 2005. The functions of African oral arts: The Arsi-Oromo oral arts in focus. African Study Monographs, 26(1), 15-58.

Joppa LN, Loarie SR, Pimm SL 2009. On Population Growth near Protected Areas: PLoS ONE 4(1): e4279. doi:10.1371/journal.pone.0004279

Joppa, Lucas.2012. "Population Change in and around Protected Areas."Journal of Ecological Anthropology15, no. 1: 58-64.

Joseph Kweku and Fikirte Regassa. 2013. Livelihood Impacts of Environmental Conservation Programmes in Amhara Region of Ethiopia. Sustainable International Development and Health Programmes. Heller School for Social Policy and Management: BrandeisUniversity,Waltham,USA.JournalofSustainableDevelopment;Vol.6,No.10;2013.doi:10.5539/jsd.v6n10p87.URL:http://dx.doi.org/10.5539/jsd.v6n10p87.

Kumessa T, Bekele A. 2014. Attitude and Perceptions of Local Residents towards the Protected Area of Abijata-Shalla Lakes National Park (ASLNP), Ethiopia. J EcosystEcograp 4(1):138. doi:10.4172/2157-7625.1000138

Lane, M. B. 2001. Affirming New Directions in Planning Theory: Co-management of ProtectedAreas.*SocietyandNaturalResources*14:657–671.

Melissa J. Remis and Rebecca Hardin.2008. “Transforming of Parks and Protected Area”. Policy and Governance in a Changing world. Pp.85-104 in Anthropological contributions to

protected area management. Edited by Kevin S. Hanna, Douglas A. Clark, and D. Scott Slocombe. Routledge UK.

Mengistu Wale, Abeje Kassie, Getachew Mulualem, Weldemariam Tesfahunegny, Abraham Assefa. 2017. Wildlife Threats and their Relative Severity of Eastern Ethiopia Protected Areas: Ecology and Evolutionary Biology; Vol.2, No.4, 2017, pp.59-67. doi: 10.11648/j.eeb.20170204.12

Molla Mekonnen.2016. "Biodiversity and Protected Areas: "United Nations Development Programme, Freetown, Sierra Leone". Journal of Sustainable Development Vol. 9, No.2;2016ISSN1913-9063E-ISSN1913 9071doi:10.5539/jsd.v9n2p67URLhttp://dx.doi.org/10.5539/jsd.v9n2p67.

Moses M and Kevin. 2013**.** Factors Affecting the Success of Conserving Biodiversity in National Parks: A Review of Case Studies from Africa Review Article Volume 2013, Article ID 798101, 20 pagehttp://dx.doi.org/10.1155/2013/798101

Mutanga CN, Muboko N, Gandiwa E. 2017. Protected Area Staff and Local Community Viewpoints: A qualitative Assessment of Conservation Relationships in Zimbabwe. PLoS ONE 12(5): e0177153. https://doi.org/10.1371/journal.

Negese Nako.2014. Challenges of Protecting Protected Area in Ethiopia: The Case of Maze National Park, in SNNPR in Gamo Gofa Zone. MSc. Thesis. Geography and Environmental Studies: University of Addis Ababa. Addis Ababa Ethiopia.

Nepal SK, Weber KE .1995. Prospects for coexistence: wildlife and local people. Ambio 24: 238-245.

Nepal, S. K., and K. E. Weber. 1995. Managing resources and resolving conflicts: national parks and local people. International Journal of Sustainable Development and World Ecology

Neumann, Roderick. 2005. Making Political Ecology: Human Geography in the making . London: Hodder Arnold.

Orlove, Benjamin S. 1980."Ecological Anthropology".In Annual Review of Anthropology 9:235-273.'

Paul F.J. Eagles.2008. "Transforming of Parks and protected area". Policy and governance in a changing world.Pp.40 in Governance Models for parks, Recreation, and

Tourism.Edited by Kevin S. Hanna, Douglas A. Clark, and D. Scott Slocombe. Routledge UK.

Phillips, A. 2003.Turning ideas on their heads: a new paradigm for protected areas. George Wright Forum 20: 8–32

Pimbert, M.P. and Pretty, J.N. 1995. Parks, People and Professionals: Putting `Participation' into Protected Area Management United Nations Research Institute for Social Development International Institute for Environment and Development World Wide Fund for Nature Discussion Paper No 57, UNRISD, Geneva.

Protected Areas People and Food Security: FAO. Contribution to the World Parks Congress, Sydney, 12–19 November 2014.

Reaugh- Flower, K. 2011. Abijata-Shalla Lakes National Park.Assessment of Factors Driving, Environmental Change for Management Decision-Making.Report to the Ethiopian Wildlife Protection Authority's Sustainable Development of the Protected Area System of Ethiopia Program. January 2011.

Rights and Resources Initiative. 2015. Protected Areas and the Land Rights of Indigenous Peoples and Local Communities: Current Issues and Future Agenda. Washington, DC: Rights and Resources Initiative.

Rolston, Holmes .1996. "Feeding People versus Saving Nature?" In William Aiken and Hugh LaFollette (eds.) World Hunger and Morality, 2nd ed. Englewood Cliffs, NJ: Prentice-Hall:248267.Ahttp://www.ecospherics.net/pages/RolstonPeopleVSNature.html .Accessed on 03.28.2009.

Ruane, J.M. 2005. Essentials of Research Methods: A Guide to Social Science Research. USA: Blackwell Publishing.

Russel, B. 2006. Research Methods in Anthropology: Qualitative and Quantitative Approaches. 4th. edition. UK: Alta Mira press.

Salzman Phillip and Donald Attwood. 1996. "Ecological Anthropology" In Encyclopedia of Social and Cultural Anthropology. Alan Barnard and Jonathan Spencer, eds. Pp. 169-172. London: Routledge.

Sandwith, T., Shine, C., Hamilton, L. and Sheppard, D. 2001. Transboundary Protected Areas for Peace and Co-operation, IUCN, Gland, Switzerland and Cambridge, UK.

Saunders, M, Lewis, P. And Thornhill, A. 2007. Research Methods for Business Students (4th edition) Harlow: prentice hall.

Silverman, D. 1993. Interpreting Qualitative Data: Methods for Analyzing Talk, Text and Interaction. London: Sage.

Solomon Abebe.2014. Use and Management of Protected Areas in Ethiopia: Multiple Stakeholder analysis of Sustainable Resource Management in Awash National Park. Ph.D.Dissertation.University of South Africa (UNISA).

Solomon, Belay, Amsalu, A. and Abebe, E. 2014. Land Use and Land Cover Changes in Awash National Park, Ethiopia: Impact of Decentralization on the Use and Management of Resources. Open Journal of Ecology, 4, 950-960.

Stolton, S., Dudley, N. Avcıoğlu Çokçalışkan, B., Hunter, D., Ivanić, K.-Z., Kanga, E., Kettunen, M., Kumagai, Y., Maxted, N., Senior, J., Wong, M., Keenleyside, K., Mulrooney, D., Waithaka, J. 2015. 'Values and benefits of protected areas', in G. L. Worboys, M. Lockwood, A. Kothari, S. Feary and I. Pulsford (eds) Protected Area Governance and Management, pp. 145–168, ANU Press, Canberra, Australia.

Sutton and Anderson. 2010. Introduction to Cultural Ecology.2nd (edition).Inc. New York.

Sylvester Bongani.2012. Natural Resources and Conflict: Unlocking the economic dimension of peace-building in Africa. Africa Institute of South Africa: Briefing no 74. March 2012.

Tafesse, Kefyalew. 2008. Integrated Assessment of Ecosystem Services and Stakeholder Analysis of Abijata-Shalla Lakes National Park Ethiopia. M.Sc. Thesis. Wageningen University

Tahal Consultancy of Engineers Ltd. 1987. Feasibility Study Of Sodium Carbonate Deposit In Abijata-Shalla Lakes In Main Ethiopian Rift Valley, Oromia, Central Ethiopia. Report.

Tesema Ta'a1. 2012. Religious Beliefs among the Oromo: Waaqeffannaa, Christianity and Islam in the Context of Ethnic Identity, Citizenship and Integration Addis Ababa University.

Theint Htun, Yali Wen and Aye Chan Ko Ko.2017. Research Article on Assessment of Forest Resources Dependency for local livelihood around Protected Area: A Case Study in Popa Mountain Park, Central Myanmar, Beijing, P.R. China, Post code –100083.

Thomas Malthus.1798. An Essay on the Principle of Population, Printed for J. Johnson, in St. Paul's Church-Yard. London.

Thomas. Malthus.1986. Integrating Ecology and Poverty Reduction: The Application of Ecology.

Tohmé, George's. 1992. Cultural Development and Environment: Paris: United Nations Educational, Scientific and Cultural Organization (UNESCO).

UNDP (United Nations Development Programme). 2007. Reducing Threats to Protected Areas Lessons from the Field. The International Bank for Reconstruction and Development / THE WORLD BANK1818 H Street, N.W. Washington, D.C. 20433, U.S.A

UNEP (United Nation Environmental Programme). 2014. Natural Resources and conflict A guide for mediation practitioners. Finland and Italy.

Von Ruschkowski, E. 2009. Causes and Potential Solutions for Conflicts between Protected Area Management and Local People in Germany: Ph.D. diss., Leibniz University Hannover.

West, P., Igoe. J. and Brockington. D. 2006. *Parks and peoples*: the social impact of protected areas. *Annu. Rev. Anthropol*., 35: 251-277.

Winter, Kimberly A.1997. "Conservation and Culture: Natural Resource Management and the Local Voice." Journal of Ecological Anthropology1, no. 1: 42-47.

World Trade Organization (WTO), 2010. World Trade Report 2010 Trade in natural resources. Available at: www.wto.org/world_trade_report10_e.pdff Accessed on: 11-09- 2013.

Yohannes H, Mohammed A, Elias E. Land Use/Land Cover Dynamics and Its Impact on Biodiversity Resources in the Abijata Shalla National Park, Central Rift Valley Lakes Region, Ethiopia. Environ Sci Ind J. 2017; 13 (5):152. ©2017 Trade Science Inc. 1 www.tsijournals.com | October-2017

Young, J. 2012. Ethiopian Protected Areas: A "Snapshot". Word Press, Addis Ababa, 23.

Appendix

Addis Ababa University College of Social Sciences

Department of Social Anthropology

Study on Natural Resources Use Conflict in Wildlife Protected Area

Appendix I: Field Research Guiding Questions: English Version

(1**) Guiding Questions of In-depth Interview**

Introduction: The purpose of this interview is to collect data on Natural Resources Use of Conflict in Protected Area: the Case of Abijata-Shalla Lakes National Park, West Arsi Zone, Oromia Regional State, Ethiopia. The data of this study will be used for the partial fulfillment of requirements for Master of Art Degree in Social Anthropology. Dear interviewees the result of this interview will help to identify the major natural resources use conflict in the Abijata-Shalla Lakes National Park and to do this your commitment and response is essential. Therefore, I kindly request the cooperation of interviewee in filling out the questions. I confirm you that all data will be treated confidentially.

Thank you!

I. Interview Questions for Experts and Rangers

Part 1: **Personal Data**

1.Name/ID_____2.Age_____3.Sex_____4.Religion_____5.Marital status_____

5. Educational background_____6. Occupation_____

7. Residential Kebele_____8. Duration of the area_____

10. Place of interview_____

11. Date of interview_____ Starting Time: _____ Finishing Time: _____

Part 2: Interview Questions

2.1. Question related to natural resources of the park, conflict of natural resources use, causes of natural resources and it effects.

1. Could you please describe in what purpose the park was established?
2. What are the main adjacent areas of the park?
3. What are the advantages of the park with respect to socially, culturally and economically?
4. Can you explain the major natural resources found in the park?
5. How many tourists visited yearly?
6. Is there any condition that the local community uses the park resources?
7. How do you see the relationship between local communities and park management?
8. What are the main tangible natural resource uses of conflict in the park?
9. Do you know the reasons why the local communities use the park resources?
10. What are the main push factors that the local community inters to the park area?
11. What are the effects of natural resources use of conflict over the area?
12. How do you realize the current existence of the park condition?
13. How do you see the current existence of the park?
14. Does it is Gazetted?
14. Do you know how many communities live inside and around the park?
15. How do you suggest that the socio-economic influence of the local people over the park?
16. Is there any mechanism the local community benefit from park resources?
17. Is there human wildlife conflict?

18. What are the major illegal activities that are practiced in the park?
19. Did you observe the attitudes of the local communities towards the park?
20. What are the main misconceptions of the people over the park?
21. What is the main area of human-wildlife conflict taking place?
22. Does the park give compensation for the community when some animals destroyed the farmers of farm land?
23. What are the main stakeholders to support the park area?
24. What are the mechanisms to tackle the natural resources use conflict?
25. Do you think the park management plan is being implemented?
26. What are the limitations of the park management to implement the management plan?
27. How do you protect the park resources?
28. Is there any condition the communities were integrated to the park management?

I. Interview Questions with Abba Geddas

Part 1: **Personal Data**

1. Name/ID_____ 2. Age_____3. Sex_____4. Religion_____5. Marital status_____

5. Educational background_____6. Occupation_____7. Source of income_____

8. Residential *Kebele*_____9.Duration of the area_____

10. Place of interview_____

11. Date of interview_____ Starting Time: _____ Finishing Time: _____

2. Interview questions

2.1. Questions related to natural resources use of conflict in the park area

1. Do you know the park is being established?
2. Did the local community live before the establishment of the park?
3. Does the park was established without consideration of the local community?
4. What are the basic needs of the local communities from the park?
5. What are the causes of natural resources use of conflict in the Park?
6. What are the main problems between the park management and local communities
7. Does the park management is participate the local community?
8. What is your responsibility when conflict is happened between the park management and local communities?
9. Does the park work with the local communities?
10. In your opinion how could be the park management do in relation to local community?

I. Interview Guide for selected local communities

Part 1: **Personal Data**

1. Name/ID_____ 2.Age_____ 3.Sex_____4.Religion_____ 5.Marital status_____

5. Educational background_____ 6. Occupation_____7. Income _____

8. Place of residence_____ 9. Length of stay in the area_____

10. Place of interview_____

11. Date of interview:_____ Starting Time: _____ Finishing Time: _____

Part 2: Interview Questions

2.1. **Questions related to natural resource use conflict and its cause in the park**

1. What is your understanding about protected area?

2. Do you have any idea about the aim of the park?

3. What are the major natural resources use conflict between the local community and the park management?

3. What are the cause of conflict between the park management and local community?

4. Do you use the park resources and if so? In what purpose do you use it?

5. Which type of resource do you use from the park?

6. Why do you use the park resources?

7. Do you have a positive relationship with the park staff?

8. Do you benefit from the park resources?

9. What do you think the park should be doing for the conservation of natural resources with local community?

Interview Guide for *Woreada* Administrators

Part 1: Personal Data

1. Name/ID_____2.Age_____ 3. Sex_____ 4. Religion_____ 5.Marital status_____

5. Educational background_____ 6. Occupation_____7. Income _____

8. Place of residence_____ 9. Duration of the area_____

10. Place of interview_____

11. Date of interview:_____ Starting Time: _____ Finishing Time: _____

Part 2: Interview Questions

2.1. Questions related to the natural resources use conflict and cause in the park and the activities of *Woredas* of administration regarding to the park?

1. Could you clarify the relationship between the park and *Woredas* of administration?

2. What are the major activities that you do with the park?

3. Do you know natural resources use of conflict in the park?

4. How do you see the cause of conflict between local community and the park management?

4. How do you look the general activities of the park considering to your administration?

5. What do you think the park should be doing for the conservation of natural resources with local community?

1. Interview Guide for the Culture and Tourism Experts

Part 1: Personal Data

1. Name/ID_____2.Age_____ 3. Sex_____ 4.Religion_____ 5. Marital status_____

5. Educational background_____ 6. Occupation_____7. Income _____

8. Place of residence_____ 9. Duration of the area_____

10. Place of interview_____

11. Date of interview:_____ Starting Time: _____ Finishing Time: _____

Part 2: Interview Questions

2.1. Questions Related to the Relationship between Park and Culture and Tourism

1. What are the major advantages of the park resources for tourism development?

2. What are the major activities that you do with the park?

3. What are the main problems regarding to tourism development in the park?

4. Do you know the natural resources use of conflict in the park?

5. What do you think the park should be doing for the conservation of natural resources with local community?

(II) Focus Group Discussion Guide

Introduction: The purpose of this focus group discussion guide is to collect data on Natural Resources Use of Conflict in Protected Area: the case of Abijata-Shalla Lakes National Park, West Arsi Zone, Oromia Regional State, Ethiopia. The data of this study will used for the partial fulfillment of requirements for Master of Art Degree in Social Anthropology. Dear FGD participants the result of this interview will help to identify the major natural resources use conflict in the Abijata-Shalla Lakes National Park and to do this your commitment and response is essential. Therefore, I kindly requested the cooperation of interviewee in filling out the questions. I confirm you that all data will be treated confidentially.

Thank You!

1. Focus Group Discussion Guide for selected local communities

Part 1: Personal Data

1. Moderator Name/ID Age_____ 2. Sex_____ 3. Religion_____4. Marital status_____

5. Educational background_____ 6. Occupation_____ 7. Income _____

8. Residential *Kebele*_____9. Length of stay in the area_____

10. Place of the focus group discussion_____

11. Date of the focus group discussion: _____ Starting Time: _____Finishing Time: ____

Part 2: Focus Group Guide Questions

2.1. Focus Group Guide Questions in relation to natural resources use conflict, causes and its effects.

1. Could you describe natural resources use conflict between local community and park?

2**.** Is there any effort made by the community to address the existing conflict?

3. What are the methods taken by your community to prevent natural resources use of conflict?

4. Do you believe the local communities use the park resources for their livelihood?

5. Do you think that the local community exploits the park resources?

6. Did you observe that the park conducted awareness creation program on natural resource use of conflict and environmental crisis?

2. Focus Group Discussion Guide for *kebeles* leader

Part 1: Personal Data

1. Moderator Name /ID 2.Age_____ 3. Sex_____ 4.Religion _____ 5. Marital status_____

5. Educational background_____ 6. Occupation_____ 7. Income _____

8. Residential *Kebele*_____9. Length of stay in the area_____

10. Place of the focus group discussion_____

11. Date of the focus group discussion: _____ Starting Time: _____Finishing Time: ____

Part 2: Focus Group Discussion Guiding Questions in relation to natural resources use conflict, causes and its effects.

1. What are natural resources use conflict between the local community and the park?
2. What are the causes of the conflict between them?
3. What are the interests of the local community from the park?

4. How could you describe the effects of natural resources use conflict between the park and also the community?

3. Focus Group Discussion Guide for Selected Youths of representative

Part 1: Personal Data

1. Moderator Name/ID_____ .2.Age_____3.Sex_____4 Religion_____5. Marital status_____

5. Educational background_____ 6.Occupation_____ 7. Income _____

8. Residential *Kebele* _____9. Length of stay in the area_____

10. Place of the focus group discussion_____

11. Date of the focus group discussion: _____ Starting Time: _____Finishing Time: ____

Part 2: Focus Group Guide Questions in relation to natural resources use conflict, causes and its effects.

1. Do you know about the park resources?
2. Is there any conflict between youths and park managements?
3. Why do you think that youths of the area use the park resources?
4. As a youth what is your role to protect the park natural resources?
5. What is the need of youth from the park area?

Appendix II: Profile of the Informants

1. Profile of the FGD Participants (Summary)

FGD- 1 Selected Woman from the Community Members in and around the Park

In Daka *Dallo Harrngama Kebele*

ID	Sex	Age	Religion	Occupation	Educational Status	Marital status

FGD- 1.1	F	35	Muslim	Housewife	Illiterate	Married
FGD- 1.2	F	28	Muslim	Merchant	10	Married
FGD- 1.3	F	50	Muslim	Housewife	Illiterate	Married
FGD- 1.4	F	28	Muslim	Housewife	Illiterate	Married
FGD- 1.5	F	45	Muslim	Housewife	Illiterate	Married
FGD- 1.6	F	30	Muslim	Housewife	5	Married

(FGD-2) with *Shalla Bila, Gale Fekalo, Daka Horra Kelo, Daka Dallo Harangama, Mudi Arjo and Desta Abijata kebele* leaders in Headquarter

ID	Sex	Age	Religion	Occupation	Educational Status	Marital status
FGD- 2.1	M	30	Muslim	Farmer and *kebele* leader	Diploma	Married
FGD- 2.2	M	35	Muslim	Farmer and *kebele* leader	10	Married
FGD- 3.3	M	29	Muslim	private and *kebele* leader	1st degree	Married
FGD- 3.4	M	26	Muslim	Merchant and *kebele* leader	10 +3	Single
FGD- 3.5	M	30	Protestant	*Kebele* leader	10 + 2	Married

(FGD-3) Youth's representative of the area in Headquarter

ID	Sex	Age	Religion	Occupation	Educational Status	Marital status
FGD- 3.1	M	18	Muslim	Farmer	8	Single
FGD- 3.2	M	20	Muslim	Farmer	10	Single
FGD- 3.3	M	25	Muslim	No	10+3	Married
FGD- 3.4	M	25	Muslim	No	10+3	Married
FGD- 3.5	M	22	Protestant	Private	10	Married
FGD- 3.6	M	20	Muslim		10	Single

2. Profile of the key informants

ID	Sex	Age	Religion	Occupation	Educational	Marital status

					Status	
KIIE-1	M	28	Orthodox	Expert	Masters	Single
KIIE-2	M	29	Muslim	Expert	1st degree	Single
KIIE-3	M	30	Muslim	Expert	1st degree	Married
KIIE-4	M	27	Protestant	Expert	1st degree	Married
KIIE-5	M	31	Muslim	Expert	1st degree	Married
KIIR-1	M	27	Muslim	Ranger	Diploma	Married
KIIR-2	M	28	Protestant	Ranger	10+3	Married
KIIR-3	F	28	Protestant	Ranger	10+3	Married
KIIA-1	M	68	Muslim	Merchant and *Abaa Gedda*	Illiterate	Married
KIIA-2	M	39	Muslim	Farmer and *Abaa Gedda*	can and write	Married
KIIA-3	M	45	Muslim	*Abaa Gedda*	can and write	Married
KIIWA-1	M	30	Protestant	Expert	1st degree	Married
KIIWA-2	M	35	Muslim	Expert	1st degree	Married